LEGISLATIVE COMMITTEE MINUTES

HB639

Bill as Introduced

HB 639-FN-A - AS AMENDED BY THE HOUSE

22Feb2023... 0543h
6Apr2023... 1231h

2023 SESSION

23-0528
04/10

HOUSE BILL ***639-FN-A***

AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

SPONSORS: Rep. Osborne, Rock. 2; Rep. Layon, Rock. 13; Rep. Wilhelm, Hills. 40; Rep. C. McGuire, Merr. 27; Rep. DiLorenzo, Rock. 10; Rep. Berry, Hills. 39; Rep. McWilliams, Merr. 30; Rep. Wallace, Rock. 8; Sen. Whitley, Dist 15; Sen. Murphy, Dist 16; Sen. Fenton, Dist 10

COMMITTEE: Commerce and Consumer Affairs

ANALYSIS

This bill establishes procedures for the legalization, regulation, and taxation of cannabis; the licensing and regulation of cannabis establishments; and makes appropriations therefor.

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HB 639-FN-A - AS AMENDED BY THE HOUSE

22Feb2023... 0543h
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23-0528
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STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Twenty Three

AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Purpose and Findings. The general court hereby finds that:

I. In the interest of allowing law enforcement to focus on violent and property crimes, generating revenue for education, prevention, treatment, and recovery related to the use of both legal and illegal drugs and for other public purposes, and advancing individual freedom, the people of the state of New Hampshire find and declare that the use of cannabis by a person 21 years of age or older should be legal and subject to reasonable regulation and taxation.

II. In the interest of the health and public safety of our citizenry, the people of the state of New Hampshire further find and declare that cannabis should be regulated in a manner similar to alcohol so that:

(a) Individuals will have to show proof of age before purchasing cannabis.

(b) Selling, distributing, or transferring cannabis to minors and other individuals under the age of 21 shall remain illegal.

(c) Driving under the influence of cannabis shall remain illegal.

(d) Moving cannabis production and sales from the underground, sometimes dangerous, illicit market to legal, taxpaying businesses allows for appropriate regulations and control.

(e) Cannabis sold in this state will be tested, labeled, and subject to additional regulations to ensure that consumers are informed and protected and to protect the environment.

(f) Some of the tax revenue generated from legal cannabis sales will be used to support programs for education, prevention, treatment, and recovery related to the use of both legal and illegal drugs.

2 New Subparagraphs; Application of Receipts; Cannabis Fund. Amend RSA 6:12, I(b) by inserting after subparagraph (387) the following new subparagraphs:

(388) Moneys deposited in the cannabis fund established in RSA 318-F:21.

(389) Moneys in the substance abuse prevention and recovery fund established by RSA 318-F:22.

3 New Subdivision; Substance Abuse Prevention and Recovery Funds. Amend RSA 126-A by inserting after section 97 the following new subdivision:

Substance Abuse Prevention and Recovery Funds

126-A:98 Substance Abuse Prevention and Recovery Funds; Management and Distribution of Funds.

I. The commissioner of the department of health and human services, in coordination with the governor's commission on alcohol and other drugs under RSA 12-J shall administer the substance abuse prevention and recovery fund established in RSA 318-F:22.

II. Funds shall be deposited into the substance abuse prevention and recovery fund as established by 318-F:25 to be distributed by the commissioner of the department of health and human services in coordination with the governor's commission on alcohol and other drugs under RSA 12-J. Funds may be awarded to a qualifying governmental entity or program for an approved use. All funds shall be nonlapsing and continually appropriated for the purposes of this section.

III. The commissioner of the department of health and human services, in coordination with the governor's commission on alcohol and other drugs per RSA 12-J, shall continue to make distributions from the trust fund.

IV. The department of health and human services shall adopt rules pursuant to RSA 541-A necessary to implement this section. Such rules shall include funding qualifications, application procedures, time-lines for receiving, reviewing, and acting upon application requests, and reporting requirements.

V. Allocations shall be used for one or more of the following:

(a) Evidence-based, voluntary programs for substance abuse-related education, prevention, treatment, and recovery.

(b) Mental health treatment, with a focus on dual-diagnosis of both mental health and substance misuse disorders.

(c) Funding and training to foster an informed, adequately paid behavioral health workforce.

(d) Scientifically and medically accurate public education campaigns educating youth and adults about the health and safety risks of alcohol, tobacco, cannabis, and other substances, including education campaigns separately targeting youth and adults that provide medically and scientifically accurate information about the health and safety risks posed by cannabis use, including driving under the influence of cannabis.

VI. No later than 18 months after the effective date of this section, and every 2 years thereafter, the commissioner of the department of health and human services shall submit an annual report to the governor and fiscal committee of the general court detailing the activities of the administration of the substance abuse prevention and recovery trust fund, the amount distributed in the past year, the amount remaining in the trust fund, a summary of how funds were used in the past year, and any recommendations for future legislation.

4 Alcoholic Beverages; Statement From Purchaser as to Age. Amend RSA 179:8, I(d) to read as follows:

(d) A valid passport [~~from~~] ***issued by the United States or by*** a country with whom the United States maintains diplomatic relations.

5 Controlled Drug Act; Drug Forfeiture Fund. Amend RSA 318-B:17-c, I to read as follows:

I. There is hereby established [~~within the office of the state treasurer~~] a special revolving fund to be designated as the drug forfeiture fund. This fund shall be administered by the attorney general and may be used to pay the costs of local, county and state drug related investigations, ***costs of collection of baseline data related to marijuana regulation,*** as well as drug control law enforcement programs within New Hampshire. The fund may also be used to pay extraordinary costs of local, county and state drug prosecutions and trial expenses.

6 Model Drug Dealer Liability Act; Definition of Illegal Drug. Amend RSA 318-C:4, I to read as follows:

I. "Illegal drug" means any drug which is a schedule I-IV drug under RSA 318-B, ***the possession, use, manufacture, sale, or transportation of which is not otherwise authorized by law***.

7 New Chapter; Regulation of Cannabis. Amend RSA by inserting after chapter 318-E the following new chapter:

CHAPTER 318-F

REGULATION OF CANNABIS

318-F:1 Definitions. In this chapter:

I. "Alternative treatment center" means an entity as defined in RSA 126-X:1, I.

II. "Cannabis" means all parts of the plant of the genus cannabis whether growing or not, the seeds thereof, the resin extracted from any part of the plant, and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or its resin, including cannabis concentrate. "Cannabis" shall not include hemp, fiber produced from the stalks, oil, or cake made from the seeds of the plant, sterilized seed of the plant that is incapable of germination, or the weight of any other ingredient combined with cannabis to prepare topical or oral administrations, food, drink, or other product.

III. "Cannabis accessories" or "cannabis paraphernalia" means any equipment, products, or materials of any kind that are intended for use, or designed for use in planting, propagating, cultivating, growing, harvesting, composting, manufacturing, compounding, converting, producing, processing, preparing, testing, analyzing, packaging, repackaging, storing, vaporizing, or containing cannabis, or for ingesting, inhaling, or otherwise introducing cannabis into the human body.

IV. "Cannabis accessory retailer" means an entity licensed to sell cannabis accessories and paraphernalia

V. "Cannabis cultivation facility" or "cultivation facility" means an entity registered to cultivate, prepare, and package cannabis, and sell cannabis to retail cannabis stores, to cannabis product manufacturing facilities, to alternative treatment centers, and to other cannabis cultivation

facilities, but not to consumers. A cannabis cultivation facility shall not produce cannabis concentrates, tinctures, extracts, or other cannabis products.

VI. "Cannabis establishment" means a cannabis cultivation facility, a cannabis testing facility, a cannabis product manufacturing facility, a retail cannabis store, a cannabis transporter, or any other type of cannabis business authorized and licensed by the commission.

VII. "Cannabis product manufacturing facility" or "product manufacturing facility" means an entity licensed to purchase cannabis, to manufacture, prepare, and package cannabis products, and sell cannabis and cannabis products to other cannabis product manufacturing facilities, to alternative treatment centers, and to retail cannabis stores, but not to consumers.

VIII. "Cannabis products" means any product that contains cannabis, including cannabis extracts, concentrated cannabis products, and products that contain cannabis and other ingredients and are intended for use or consumption, such as, but not limited to, edible products, ointments, and tinctures. This term shall not include cannabis in its plant or flower form.

IX. "Cannabis testing facility" or "testing facility" means an entity licensed to test cannabis for potency and contaminants.

X. "Cannabis transporter" means an entity licensed to transport cannabis between cannabis establishments.

XI. "Commission" means the liquor and cannabis commission.

XII. "Consumer" means a person 21 years of age or older who purchases cannabis or cannabis products for personal use by a person 21 years of age or older, but not for resale. "Consumer" does not include a qualifying patient or designated caregiver purchasing cannabis from an alternative treatment center pursuant to RSA 126-X.

XIII. "Department" means the department of health and human services.

XIV. "Documentation" means all records, in any form, including electronic records.

XV. "Dual use certificate" means a license allowing an alternative treatment center licensed to operate pursuant to RSA 126-X to co-locate with and operate a retail cannabis store, cannabis cultivation facility, cannabis product manufacturing facility, cannabis transporter, or any combination of those licenses. A dual use certificate is required in addition to registration as an alternative treatment center and the license required pursuant to this chapter for each type of cannabis establishment operated by the alternative treatment center.

XVI. "Immature cannabis plant" means a cannabis plant that has not flowered and that does not have buds that may be observed by visual examination.

XVII. "Inflation" means the 12-month percentage change in the consumer price index for all urban consumers, northeast region as published by the Bureau of Labor Statistics, United States Department of Labor.

XVIII. "Mature cannabis plant" means a cannabis plant that has flowered and has buds that may be observed by visual examination.

XIX. "Municipality" means a city, town, or an unincorporated place.

XX. "Possession limit" means:

(a) Four ounces of cannabis in plant form; and

(b) Twenty grams of concentrated cannabis products, which includes hashish and pre-filled cartridges of cannabis extracts intended for vaporization;

(c) Cannabis products other than concentrated cannabis products containing no more than 2,000 milligrams of THC;

This paragraph shall not apply to the possession limits set forth in RSA 126-X:2.

XXI. "Public place" means any place to which the general public has access.

XXII. "Premises" means and includes all parts of the contiguous real estate occupied by a licensee over which the licensee has direct or indirect control or interest and which the licensee uses in the operation of the licensed business, and which have been approved by the commission as proper places in which to exercise the licensee's privilege.

XXIII. "Retail cannabis store" or "retail store" means an entity licensed to purchase cannabis from cannabis cultivation facilities, to purchase cannabis and cannabis products from cannabis product manufacturing facilities, and to sell, transfer, and deliver cannabis and cannabis products or cannabis accessories or cannabis paraphernalia to consumers.

XXIV. "Resident" means a natural person who:

(a) Is domiciled in New Hampshire; and

(b) Maintains a place of abode in New Hampshire, unless the individual was homeless and residing in New Hampshire for at least 51 percent of the time.

318-F:2 Personal Use of Cannabis.

I. Except as otherwise provided in this chapter, the following acts, if undertaken by a person 21 years of age or older, shall not be illegal under New Hampshire law or the law of any political subdivision of the state or be a basis for seizure or forfeiture of assets under New Hampshire law:

(a) Possessing, consuming, using, displaying, obtaining, purchasing, processing, producing, or transporting an amount of cannabis that does not exceed the possession limit, except that no adult other than one who is acting in his or her capacity as a staffer of a cannabis product manufacturer may perform extractions using solvents other than water, glycerin, propylene glycol, vegetable oil, or food-grade ethanol.

(b) Transferring an amount of cannabis that does not exceed the possession limit to a person who is 21 years of age or older without remuneration. For purposes of this paragraph, a transfer is for remuneration if cannabis is given away contemporaneously with another transaction between the same parties, if a gift of cannabis is offered or advertised in conjunction with an offer for sale of goods, services, or admission to an event, or if the gift of cannabis is contingent upon a separate transaction for goods, services, or the price of admission to an event.

(c) Transferring cannabis, including cannabis products, to a cannabis testing facility.

(d) Controlling property where the acts described under this section occur.

(e) Assisting another person who is 21 years of age or older in any of the acts described under this section.

II. No law enforcement officer employed by an agency that receives state or local government funds shall expend any state or local resources, including the officer's time, to effect any arrest or seizure of cannabis, or conduct any investigation, on the sole basis of activity the officer believes to constitute a violation of federal law if the officer has reason to believe that such activity is in compliance with this chapter, nor shall any such officer expend any state or local resources, including the officer's time, to provide any information or logistical support related to such activity to any federal law enforcement authority or prosecuting entity.

318-F:3 Smoking or Vaping Cannabis in Public Prohibited; Penalty. No person shall smoke or vape cannabis in a public place where the smoking or vaporizing of tobacco products is prohibited. Any person who violates this section shall be guilty of a violation and may be fined not more than $50.

318-F:4 Consuming Cannabis While Operating a Moving Vehicle Prohibited; Penalty.

I. No person shall consume, smoke, or vaporize cannabis while driving or attempting to drive a motor vehicle on a way, or while operating or attempting to operate an off-highway recreational vehicle, snowmobile, boat, vessel, aircraft, or other motorized device used for transportation.

II. No person shall smoke or vaporize cannabis while the person is a passenger in a motor vehicle that is being driven on a way.

III. Any person who violates this section shall be guilty of a violation and shall be subject to a fine not to exceed $150. In addition, any person who violates paragraph I of this section may have his or her driver's license, if a resident, or driving privilege, if a nonresident, suspended for up to 60 days for a first offense and up to one year for a subsequent offense.

IV. In this section, "way" shall have the same meaning as in RSA 265-A:44.

V. A person may not be convicted of both a violation of this section and a violation of RSA 265-A:1 based on the same incident.

318-F:5 Odor and Personal Possession of Cannabis Not Grounds for a Search.

I. Except as provided in paragraph II of this section, the odor of cannabis or burnt cannabis, or the possession of a quantity of cannabis that the officer does not have probable cause to believe exceeds the possession limit of cannabis, shall not constitute in part or in whole probable cause or reasonable suspicion and shall not be used as a basis to support any stop or search of a person or motor vehicle.

II. Nothing in this section prevents a law enforcement official from conducting a test for impairment based in part on the odor of recently burnt cannabis if the law enforcement official would otherwise be permitted to do so under New Hampshire law.

318-F:6 Enforcement Authority.

I. The commission shall have the primary responsibility for enforcing this chapter. Local, county, and state law enforcement officers shall also have jurisdiction to enforce this chapter. Such authority may be delegated to agents working under their authority.

II. The commission shall have the authority to interpret statutes and administrative rules as they relate to this chapter.

III. The commission may transfer funds within and among all accounting units within the commission's operating budget and to create accounting units and expenditure classes as required and as the commissioner deems necessary and appropriate to address present or projected budget deficits, or to respond to changes in federal law, regulations, or programs, and otherwise as necessary for the efficient management of the liquor commission and cannabis funds. The provisions of this section shall not be subject to RSA 9:16-a, RSA 9:17-a, and RSA 9:17-c.

IV. The commission may pay staff members working on both liquor and cannabis matters increased wages until 18 months after the first retail cannabis establishment license is issued. A 10 percent stipend shall be established for commission staff based on their salary, when engaged in the development and all administrative aspects of the program.

318-F:7 Regulation of Cannabis.

I. Not later than one year after the effective date of this section, the commission shall initiate the rulemaking process pursuant to RSA 541-A for the licensing and regulation of cannabis cultivation facilities and for the issuance of dual use certificates. Not later than 15 months after the effective date of this section, the commission shall initiate the rulemaking process pursuant to RSA 541-A for the licensing and regulation of all other cannabis establishments and on the manufacture and sale of cannabis accessories. The rules shall include the following:

(a) Procedures for the application for, issuance, transfer, approval, denial, renewal, suspension, and revocation of a license for cannabis establishments, including procedures to hear complaints and impose penalties if alternative treatment centers with dual use certificates fail to provide an adequate supply and variety of therapeutic cannabis and cannabis products for qualifying patients.

(b) A fee schedule of reasonable application, license, and annual renewal fees, provided:

(1) That the non-refundable portion of application fees shall not exceed $1,000, with this upper limit adjusted annually for inflation; and

(2) That cultivation facility licensing fees be tiered based on the size of the facilities.

(c) Qualifications for licensure that are directly and demonstrably related to the operation of a cannabis establishment and which may not disqualify applicants solely for cannabis offenses prior to the effective date of this chapter.

(d) Criteria for selection among applicants when there are more qualified applicants than there are number of licenses available in a particular municipality.

(e) Regulations to create at least 2-4 tiers of cultivation facilities, based on the size of the facility or the number of plants cultivated and providing:

(1) That outdoor cultivation facilities shall be allowed to cultivate 3 times the square footage of canopy as indoor cultivation facilities of the same tier;

(2) That security regulations and licensing fees shall vary based on the size of the cultivation facility and that regulatory burdens shall be no more onerous than is reasonably necessary; and

(3) That cultivation facilities may move up to a higher tier at least once per year if they meet the security requirements and pay the associated fee, except that the commission may suspend this provision in the event of an oversupply.

(f) Record keeping requirements for cannabis establishments, including requirements for implementation and compliance with the tracking system.

(g) Requirements for the transportation of cannabis and cannabis products between cannabis establishments, including documentation that shall accompany any cannabis being transported.

(h) A schedule of fines as are authorized in this chapter for violations of statutory requirements, provided that, not later than 18 months after the effective date of this chapter the commission shall report to the chairpersons of the house and senate ways and means committees its proposal for a fine schedule and for legislation needed to implement the schedule.

(i) Procedures for hearings on penalties to include but not limited to administrative fines, suspensions, and revocations of licenses.

(j) Reasonable security requirements for each type of cannabis establishment, which may be varied based on the size of the cannabis establishment.

(k) Health and safety rules, including but not limited to the packaging and preparing of cannabis products, restricting the use of pesticides and other chemicals during cultivation and processing that may be dangerous to cannabis consumers, and sanitation requirements;

(l) Restrictions on the advertising, signage, marketing, and display of cannabis and cannabis products, including but not limited to:

(1) A prohibition on mass-market campaigns that have a likelihood of reaching minors;

(2) A prohibition on marketing to minors, including marketing specifically related to social media;

(3) A prohibition on cannabis products that are named, packaged, marketed, or designed in a way that mimics or is likely to cause confusion with commercially available, trademarked non-cannabis products, including relating to their logos, the sound of the product or brand, packaging, taste, appearance, and commercial impression;

(4) A prohibition on giveaways of cannabis, cannabis products, or cannabis accessories, including samples;

(5) A prohibition on billboard advertising, sound trucks, or outdoor internally illuminated screen displays consistent with alcohol advertising prohibitions in RSA 179:31; and

(6) A requirement for any advertising to include a standard, recognizable symbol that a product contains cannabis or THC.

(m) Restrictions on where a cannabis establishment may be located, consistent with the provisions of this chapter.

(n) Restrictions on the hours of sale when a retail cannabis store may sell cannabis and cannabis products, provided the regulations shall not allow retail stores to begin sales before 6:00 a.m. or to sell cannabis or cannabis products after 11:45 p.m.

(o) Packaging, product manufacturing, and labeling requirements for cannabis and cannabis products, including:

(1) Mandating the disclosure of the THC content of each product;

(2) Requirements to ensure cannabis products and their packaging are not designed to appeal to or be attractive to minors, including providing that they cannot be in the shape of cartoons, toys, animals, or people; and

(3) Establishing the maximum amount of THC that may be included in each cannabis product serving as 20 milligrams, except that the commission may change this amount through rulemaking;

(4) Prohibiting flavors and designs of cannabis-infused beverages, oils, and edibles that resemble or imitate candy flavors that are marketed to minors;

(5) Warnings, including but not limited to, those described in RSA 318F:16;

(6) A requirement for any label, an for certain products where appropriate, to include a standard, recognizable symbol that a product contains cannabis or THC; and

(7) Potency limits for cannabis products.

(p) Health and safety rules and standards for the cultivation of cannabis and manufacture of cannabis products, including:

(1) Prohibitions on additives to products that are toxic, misleading to consumers, or designed to make the product more appealing to children;

(2) Safety standards regulating the manufacture of cannabis extracts and concentrated cannabis products; and

(3) A prohibition on the inclusion of nicotine and other additives to cannabis products that are designed to make the product more addictive or more intoxicating.

(q) Standards for the operation of testing laboratories, including requirements for equipment and qualifications for personnel.

(r) Requirements for the testing of cannabis and cannabis products, including:

(1) Requirements to ensure at a minimum that cannabis and cannabis products sold for human consumption do not contain contaminants that are injurious to health and to ensure correct labeling;

(2) That testing shall include, but not be limited to, analysis for residual solvents, poisons, or toxins; harmful chemicals; dangerous molds or mildew; filth; dangerous herbicides, pesticides, and fungicides, heavy metals, and harmful microbials, such as E. coli or salmonella;

(3) Threshold levels for each contaminant listed in subparagraph (2);

(4) Providing that in the event that test results indicate the presence of quantities of any substance determined to be injurious to health, such cannabis or cannabis products shall be immediately quarantined and immediate notification to the commission shall be made. The contaminated product shall be documented and properly destroyed;

(5) That testing shall also verify THC and other cannabis potency representations for correct labeling;

(6) That the commission shall determine an acceptable variance for potency representations and procedures to address potency misrepresentations;

(7) That the commission shall determine the protocols and frequency of cannabis testing by a cannabis testing facility.

(8) Allowances for remediation of cannabis and cannabis products whose test results are in excess of established thresholds; and

(9) Minimum testing requirements for an effective cannabis and cannabis product quality assurance program for cannabis cultivation facilities and cannabis product manufacturing facilities.

(s) Reasonable health and safety restrictions on cannabis accessories that may be manufactured or sold in New Hampshire, including a prohibition on any vaporization device that includes toxic or addictive additives. The commission may prohibit types of vaporizers that are particularly likely to be utilized by minors without detection, but may not completely ban or unreasonably restrict the manufacture or sale of vaporization devices.

(t) Training and continuing education required or recommended for licensees, which shall include training on checking photo identification and for false identification.

(u) Requirements that cannabis retail stores stock cannabis products, including flower, with low and moderate amounts of THC and that they be at least as prominently displayed as high potency products.

II.(a) In order to ensure that individual privacy is protected, the commission shall not require a consumer to provide a retail cannabis store with personal information other than government-issued identification to determine the consumer's age, and a retail cannabis store shall not be required to acquire and record personal information about consumers.

(b) In order to ensure that individual privacy is protected, no cannabis establishment may record or store a consumer's name, address, purchases, or contact information unless the consumer consents in writing. No cannabis establishment may make granting permission for the collection or storage of such information a condition of a consumer purchasing cannabis from the establishment.

III. Not later than 18 months after the effective date of this chapter, the commission, in consultation with the department, shall develop an informational handout, which retail stores shall make available to all consumers, and which shall include information detailed in RSA 318-F:14.

IV. The commission shall require all cannabis establishments to utilize an inventory tracking system, including use of a universal product code, for tracking the transfer of cannabis and cannabis products between licensed cannabis establishments and the sale of cannabis and cannabis products to consumers. The system shall ensure an accurate accounting of the production, processing, and sale of cannabis and cannabis products and shall enable separate tracking of cannabis flowers, immature cannabis plants, and other parts of cannabis sold from cannabis cultivation facilities. The system shall allow for the tracking of lab testing results for all cannabis and shall be capable of swiftly identifying all products involved in a product recall. The commission may develop and maintain a system that satisfies the requirements of this section, or it may select a vendor to develop and maintain a system.

V. No later than 24 months after the effective date of this chapter, and every year thereafter, the commission shall reevaluate the fines and penalties established in RSA 318-F, and shall report in writing on its findings and recommendations to the chairpersons of the house and senate ways and means committees.

VI. The commission may regulate synthetic cannabinoids and intoxicating products derived from hemp.

VII. No later than 36 months after the effective date of this section, the commission shall make written recommendations to the general court regarding the regulation of hemp including:

(a) What hemp products the commission would regulate;

(b) How the products would be regulated, including whether a license would be required and whether hemp processors and manufacturers should be licensed and regulated by the commission;

(c) Any license fees or other charges that would be assessed on hemp products and license fees assessed on hemp processors and manufacturers; and

(d) The resources required to regulate hemp processors, product manufacturers, hemp products, and the retail sale of intoxicating hemp products.

VIII. A prohibition on the manufacturing and sale of cannabis alcoholic beverages.

318-F:8 Dual Use Certificates.

I. No later than 18 months after the effective date of this chapter, the commission, after consulting with the department of health and human services and the therapeutic cannabis medical oversight board and holding at least one public hearing, shall develop regulations allowing alternative treatment centers registered to operate pursuant to RSA 126-X to apply for a dual use certificate.

II. A separate dual use certificate is required for each alternative treatment center dispensing location.

III. The commission shall grant or deny any application for a dual use certificate within 90 days.

IV. The regulations for a dual use certificate shall include, but are not limited to:

(a) Providing for separation of cannabis sales to qualifying patients and consumers, such as by requiring separate counters;

(b) Requiring dual-use cannabis establishments to prioritize therapeutic cannabis access;

(c) Requiring dual-use cannabis establishments to maintain or increase the diversity of therapeutic cannabis products available for qualifying patients;

(d) Requiring dual-use cannabis establishments to avoid raising prices for qualifying patients beyond the rate of inflation, for at least 2 years after dual use licensure;

(e) A requirement that in the event of crowding, inadequate parking, or similar issues limiting therapeutic cannabis access, the dual-use cannabis establishment shall take measures to prioritize therapeutic cannabis access, such as setting aside certain business hours when the establishment will only serve qualifying patients and their designated caregivers; and

(f) Providing for the suspension of sales of cannabis to adult-use consumers in the event of a product shortage.

V.(a) Cannabis sold by alternative treatment centers holding dual use certificates to qualifying patients directly or via their designated caregivers shall meet the requirements of RSA 126-X:8 and rules issued pursuant to chapter RSA 126-X.

(b) Cannabis sold by alternative treatment centers holding dual use certificates to qualifying patients directly or via their designated caregivers may have higher THC per serving than is permitted by rules governing cannabis establishments that are issued pursuant to RSA 318-F:10.

VI. Cannabis stores affiliated with alternative treatment centers holding dual use certificates may sell cannabis grown and processed by those alternative treatment centers to consumers provided they comply with rules issued pursuant to this section and RSA 318-F:10

318-F:9 Transition of Therapeutic Cannabis Program.

I. No later than 20 months after the effective date of this chapter, the commission, jointly with the department of health and human services, shall make a recommendation to the health and

human services oversight committee whether to transfer the department's therapeutic cannabis program to the commission.

II. The proposal shall include a plan to allow cannabis retail stores to obtain a therapeutic cannabis endorsement that would allow them to serve qualifying patients without imposing the excise tax in RSA 318-F:23.

318-F:10 Licensure Procedures for Cannabis Establishments.

I. Each application for a license to operate a cannabis establishment shall be submitted to the commission.

II. Each application shall include both the fee established by the commission and a $500 fee for the municipality to review the application, except that the municipal fee shall be $75 in the case of the smallest tier of cultivation facilities.

III. The commission shall:

(a) Immediately forward a copy of each application and the municipal fee to the municipality in which the applicant desires to operate the cannabis establishment; and

(b) Issue a license to the applicant within 90 days after receipt of an application unless:

(1) The commission finds the applicant is not in compliance with the requirements of this chapter or rules adopted under this chapter;

(2) The commission is notified by the relevant municipality that the applicant is not in compliance with an ordinance adopted pursuant to this chapter and in effect at the time of application; or

(3) More qualified applicants have applied than the number of licenses available in the municipality, and the applicant was not selected.

(c) Accept and process applications on an ongoing basis.

318-F:11 Enactment of Municipal Ordinances.

I. A municipality may enact an ordinance prohibiting or limiting the number and type of cannabis establishments that may be permitted within the municipality and regulating the time, place, and manner of operation of a cannabis establishment, which is permitted within the municipality. A locality's prohibition on cannabis establishments may not prohibit transportation through the locality or deliveries within the locality by cannabis establishments located in other jurisdictions.

II. A municipality may enact an ordinance specifying the entity within the municipality that shall be responsible for reviewing applications submitted for a license to operate a cannabis establishment within the municipality. The entity designated by the municipality shall be responsible for indicating whether the application is in compliance with municipal ordinances.

III. A municipality may not negotiate or enter into an agreement with a cannabis establishment or a cannabis establishment applicant requiring that the cannabis establishment or

applicant provide money, donations, in–kind contributions, services, or anything of value to the locality.

318-F:12 Residency Required.

I. Except as provided in this section, any person applying for a cannabis establishment license shall be a resident, or shall have at least one director, officer, or partner who is a New Hampshire resident.

II. This section shall not apply to an applicant for a testing facility registration.

318-F:13 Restrictions on Location Near Schools. No cannabis establishment shall operate, nor shall a prospective cannabis establishment apply for a license, if the establishment would be located within 1,000 feet of the property line of a pre-existing public or private pre-school, elementary, or secondary school.

318-F:14 Informational Materials and Warning Labels.

I. The commission, in consultation with the department, shall design at least 2 versions of informational handout, one of which is specific to high potency products.

II. A retail cannabis store shall include an informational handout designed by the commission in consultation with the department with all cannabis and cannabis products sold to consumers, and shall include the high potency version in all cannabis concentrates and other high potency sales. The informational handouts shall include scientifically accurate information, including:

(a) Advice about the potential risks of cannabis, and, in the case of the high potency handout, risks specific to high potency products, including:

(1) The risks of driving under the influence of cannabis, and the fact that doing so is illegal;

(2) Any adverse effects unique to adolescents or young adults, including effects related to the developing mind;

(3) Potential adverse events and other risks, including related to mental health; and

(4) Risks of using cannabis during pregnancy or breastfeeding. This may be identical to that required under RSA 126-X:8, XVI(c)(7).

(b) Information about methods for administering cannabis;

(c) How long cannabis may impair a person after it is ingested in each manner; and

(d) How to recognize problematic usage of cannabis and how to obtain appropriate services or treatment;

(e) Information regarding safe storage and disposal of cannabis and paraphernalia to prevent accidental poisonings, including the contact information for the Northern New England Poison Control Center. This may be identical to that required under RSA 126-X:8, XVI(c)(8); and

(f) Unless federal statutory law or case law has changed and such a warning is no longer accurate, a disclosure that:

(1) Cannabis is illegal under U.S. federal law, and

(2) Under the United States government's 1986 Gun Control Act, any 'unlawful' user of a controlled substance is prohibited from purchasing or owning a gun.

III. The commission may require retail stores to display informational posters in conspicuous locations about the risks of cannabis use, including regarding risks during pregnancy and breastfeeding and risks of cannabis use in adolescents or by younger adults. The posters shall be scientifically accurate.

IV. All cannabis and cannabis products sold by a retail cannabis store shall include warning labels that provide the following information: "Warning: This product has intoxicating effects. For use by adults 21 and older. Keep out of reach of children." The department may require a standard, recognizable symbol on all cannabis packaging to signify that THC or other cannabinoids are included in the product.

V. All cannabis products sold by retail cannabis stores shall include:

(a) A warning label that provides, "Caution: When eaten or swallowed, the intoxicating effects of this product may be delayed by up to 2 hours," unless the commission determines that a different time frame should be specified.

(b) A disclosure of ingredients and possible allergens.

(c) A nutritional fact panel.

(d) Opaque, child-resistant packaging, which shall be designed or constructed to be significantly difficult for children under 5 years of age to open and not difficult for normal adults to use properly as defined by 16 C.F.R. section 1700.20.

318-F:15 Lawful Operation of Cannabis-Related Facilities. If undertaken by a person 21 years of age or older, the following acts shall not be illegal under New Hampshire law or be a basis for seizure or forfeiture of assets under New Hampshire law:

I. Possessing, displaying, or transporting cannabis or cannabis products; obtaining or purchasing cannabis from a cannabis cultivation facility; delivering or transferring cannabis to a cannabis testing facility; obtaining or purchasing cannabis or cannabis products from a cannabis product manufacturing facility; or sale, delivery, or distribution of cannabis or cannabis products to an adult who is 21 years of age or older or to retail cannabis stores or alternative treatment centers, if the person or business entity conducting the activities described in this paragraph has obtained a current, valid license to operate a retail cannabis store or is acting in his or her capacity as an owner, employee, or agent of a licensed retail cannabis store.

II. Cultivating, harvesting, processing, packaging, transporting, displaying, or possessing cannabis; obtaining or purchasing cannabis seeds or seedlings or immature cannabis plants from any adult 21 years of age or older; delivering or transferring cannabis to a cannabis testing facility; selling or transferring cannabis that has not been processed into extracts, concentrates, or other preparations to a cannabis cultivation facility, a cannabis product manufacturing facility, or a retail

cannabis store or alternative treatment center; or obtaining or purchasing cannabis from a cannabis cultivation facility, if the person or business entity conducting the activities described in this paragraph has obtained a current, valid license to operate a cannabis cultivation facility or is acting in his or her capacity as an owner, employee, or agent of a licensed cannabis cultivation facility.

III. Packaging, processing, transporting, manufacturing, displaying, or possessing cannabis or cannabis products; delivering or transferring cannabis or cannabis products to a cannabis testing facility; selling cannabis or cannabis products to a retail cannabis store, alternative treatment center, or a cannabis product manufacturing facility; purchasing or obtaining cannabis from a cannabis cultivation facility; or purchasing or obtaining cannabis or cannabis products from a cannabis product manufacturing facility, if the person or business entity conducting the activities described in this paragraph has obtained a current, valid license to operate a cannabis product manufacturing facility or is acting in his or her capacity as an owner, employee, or agent of a licensed cannabis product manufacturing facility.

IV. Possessing, obtaining, cultivating, processing, storing, transporting, receiving, or displaying cannabis or cannabis products if the person or business entity has obtained a current, valid license to operate a cannabis testing facility or is acting in his or her capacity as an owner, employee, or agent of a licensed cannabis testing facility.

V. Engaging in any activities involving cannabis or cannabis products if the person or business entity conducting the activities has obtained a current, valid license to operate a cannabis establishment or is acting in his or her capacity as an owner, employee, or agent of a licensed cannabis establishment, and the activities are within the scope of activities allowed by the commission for that type of cannabis establishment.

VI. Possessing, obtaining, cultivating, processing, storing, transporting, or receiving cannabis obtained from a cannabis establishment or transporting, delivering, or transferring cannabis to a cannabis establishment if the person or business entity has obtained a current, valid license to operate a cannabis transporter or is acting in his or her capacity as an owner, employee, or agent of a registered cannabis transporter.

VII. Obtaining or purchasing cannabis from a cannabis cultivation facility; delivering or transferring cannabis to a cannabis testing facility; or obtaining or purchasing cannabis or cannabis products from a cannabis product manufacturing facility if the person or business entity conducting the activities described in this paragraph possesses a valid license to operate an alternative treatment center or is acting in his or her capacity as an owner, employee, or agent of a licensed alternative treatment center.

VIII. Leasing or otherwise allowing the use of property owned, occupied, or controlled by any person, corporation, or other entity for any of the activities conducted lawfully in accordance with this chapter.

IX. Selling, offering for sale, transferring, transporting, or delivering cannabis to establishments licensed to process or sell cannabis under the laws of other states if the person or business entity has obtained a current, valid license to operate a cannabis transporter, cannabis product manufacturing facility, or cannabis cultivation facility or is acting in his or her capacity as an owner, employee, or agent of a cannabis transporter, cannabis product manufacturing facility, or cannabis cultivation facility.

318-F:16 Proof of Purchaser's Identity.

I. For the purposes of this chapter, any person or entity making the sale of cannabis or cannabis accessories to any purchaser whose age is in question may accept any official documentation listed in RSA 179:8 as proof that the purchaser is 21 years of age or older.

II. The establishment of all of the following facts by a retail cannabis store or an agent or employee of a retail store making a sale of cannabis or cannabis accessories to a person under the age of 21 shall constitute an affirmative defense to any prosecution for such sale:

(a) That the person presented what an ordinary and prudent person would believe to be valid documentation of a type listed in RSA 179:8.

(b) That the sale was made in good faith relying upon such documentation and appearance in the reasonable belief that the person was 21 years of age or older. No identification scanning or collection of personally identifiable information shall be required under this section.

318-F:17 Driving; Minors; and Control of Property.

I. Nothing in this chapter shall be construed to permit driving or operating under the influence of drugs or liquor pursuant to RSA 265-A, nor shall this section prevent the state from enacting and imposing penalties for driving under the influence of or while impaired by cannabis.

II. Nothing in this chapter shall be construed to permit the transfer of cannabis, with or without remuneration, to a person under the age of 21, or to allow a person under the age of 21 to purchase, possess, use, transport, grow, or consume cannabis.

III. Nothing in this chapter shall prohibit a state or county correctional facility from prohibiting the possession, consumption, use, display, transfer, distribution, sale, transportation, or growing of cannabis on or in the correctional facility's property.

IV.(a) Except as provided in this section, this chapter does not require any person, corporation, or any other entity that occupies, owns, or controls a property to allow the consumption, cultivation, display, sale, or transfer of cannabis on or in that property.

(b) In the case of the rental of a residential dwelling, a landlord shall not prohibit the possession of cannabis or the consumption of cannabis by non-smoked means unless:

(1) The tenant is a roomer who is not leasing the entire residential dwelling;

(2) The residence is incidental to the provision of educational, counseling, religious, or similar service;

(3) The residence is a transitional housing facility; or

(4) Failing to prohibit cannabis possession or consumption would violate federal law or regulations or cause the landlord to lose a monetary or licensing-related benefit under federal law or regulations.

(c) This chapter shall not prevent a landlord from prohibiting cannabis smoking or cannabis cultivation.

(d) An adult who is 21 or older may use cannabis on privately owned real property only with permission of the property owner or, in the case of leased or rented property, with the permission of the tenant in possession of the property, except that a tenant shall not allow a person to smoke cannabis on rented property if smoking on the property violates the lease or the lessor's rental policies that apply to all tenants at the property. However, a tenant may permit an adult who is 21 or older to use cannabis on leased property by ingestion or inhalation through vaporization even if smoking is prohibited by the lease or rental policies. For purposes of this chapter, vaporization shall mean the inhalation of cannabis without the combustion of the cannabis.

318-F:18 Enforcement of Contracts. Contracts related to the operation of a cannabis establishment licensed pursuant to this chapter shall be enforceable. No contract entered into by a licensed cannabis establishment or its employees or agents as permitted pursuant to a valid license, or by those who allow property to be used by an establishment, its employees, or its agents as permitted pursuant to a valid license, shall be unenforceable on the basis that cultivating, obtaining, manufacturing, distributing, dispensing, transporting, selling, possessing, or using cannabis is prohibited by federal law.

318-F:19 Non-Discrimination for State-Legal Cannabis Activities and Prior Convictions.

I. Except as provided in this section, a holder of a professional or occupational license may not be subject to professional discipline for:

(a) Providing advice or services related to cannabis establishments or applications to operate cannabis establishments on the basis that cannabis is illegal under federal law; or

(b) Engaging in activities allowed by this chapter.

II. An applicant for a professional or occupational license may not be denied a license based on:

(a) Previous employment related to cannabis establishments operating in accordance with state law;

(b) A prior conviction for a non-violent cannabis offense that does not involve distribution to minors, or

(c) Engaging in activities allowed by this chapter.

III. Except as provided in this section, neither the state nor any of its political subdivisions may impose any penalty or deny any benefit or entitlement for conduct permitted under this chapter or for the presence of cannabinoids or cannabinoid metabolites in the urine, blood, saliva, breath, hair, or other tissue or fluid of a person who is 21 years of age or older.

IV. Except as provided in this section, neither the state nor any of its political subdivisions may deny a driver's license, a professional license, housing assistance, social services, or other benefits based on cannabis use or for the presence of cannabinoids or cannabinoid metabolites in the urine, blood, saliva, breath, hair, or other tissue or fluid of a person who is 21 years of age or older.

V. A person shall not be denied custody of or visitation with a minor for acting in accordance with this chapter, unless the person's behavior is such that it creates an unreasonable danger to the minor that can be clearly articulated and substantiated.

VI. Except as provided in this section, neither the state nor any of its political subdivisions may discriminate against a person in hiring, termination, or any term or condition of employment, or otherwise penalize a person in employment or contracting, if the discrimination is based upon either of the following:

(a) Engaging in activities allowed by this chapter;

(b) A prior conviction for a non-violent cannabis offense that does not involve distribution to minors; or

(c) Testing positive for the presence of cannabinoids or cannabinoid metabolites in the urine, blood, saliva, breath, hair, or other tissue or fluid of the individual's body.

VII.(a) This section does not prevent an employer from disciplining an employee or contractor for ingesting cannabis in the workplace or for working while impaired by cannabis.

(b) The protections provided by this section do not apply to the extent that they conflict with a governmental employer's obligations under federal law or regulations or to the extent that they would disqualify the entity from a monetary or licensing-related benefit under federal law or regulations.

(c) This section does not authorize any person to engage in, and does not prevent the imposition of any civil, criminal, disciplinary, or other penalties, including discipline or termination by a governmental employer, any task while under the influence of cannabis, when doing so would constitute negligence or professional malpractice.

VIII. For the purposes of medical care, including organ and tissue transplants, the use of cannabis does not constitute the use of an illicit substance or otherwise disqualify a person from needed medical care and may only be considered with respect to evidence-based clinical criteria.

IX. Notwithstanding any other provision of law, unless there is a specific finding that the individual's use, cultivation, or possession of cannabis could create a danger to the individual or another person, it shall not be a violation of conditions of parole, probation, or pre-trial release to:

(a) Engage in conduct allowed by this chapter; or

(b) Test positive for cannabis, tetrahydrocannabinol, or any other cannabinoid or metabolite of cannabis.

X. This section does not authorize any person to engage in, and does not prevent the imposition of any penalties for engaging in, the following conduct:

(a) Undertaking any task under the influence of cannabis, when doing so would constitute negligence or professional malpractice.

(b) Operating, navigating, or being in actual physical control of any motor vehicle, aircraft, train, or motorboat while under the influence of cannabis.

318-F:20 Data Collection Related to Cannabis Legalization and Regulation.

I. No later than 6 months after the effective date of this chapter and every 2 years thereafter, the department of safety, information and analysis center, drug monitoring initiative, shall produce and publish a report that includes baseline data and the most current data regarding health and welfare outcomes since cannabis became legal and regulated for adults' use, including but not limited to high school graduation rates; youth and adult rates of alcohol, cannabis, and illegal drug use; rates of maladaptive use of cannabis; rates of alcohol abuse; opiate use and abuse rates; the number and type of youth and adult convictions for cannabis offenses; and the rates of individuals needing but not receiving substance abuse treatment. The report shall also include information on treatment and prevention services provided, education campaigns undertaken, and funding allocated under RSA 318-F:21.

II. No later than 6 months after the effective date of this chapter, and again 18 months after the effective date of this chapter, the Judicial Branch shall produce and publish a report that includes the number of cases dismissed pursuant to RSA 651:5-e.

318-F:21 Cannabis Fund Established.

I. There is established a nonlapsing fund to be known as the cannabis fund. The fund shall be kept distinct and separate from all other funds in the state treasury, and the moneys credited to the fund shall be held distinct and separate from all other funds over which the state treasurer has control. Moneys in the fund shall be deposited with any financial institution as defined in RSA 383-A:2-201(a)(27-a), with a branch in the state. Moneys credited to the fund shall include deposits into the fund by the commission pursuant to this chapter and deposits into the fund by the commissioner of the department of revenue administration.

II. For the biennium ending June 30, 2025, and every biennium thereafter, the commission shall include the cost of administration of this chapter in the commission's efficiency expenditure request pursuant to RSA 9:4.

III. For the biennium ending June 30, 2025, the sum of $15,000,000 is hereby appropriated to the cannabis commission for the cost of administration of this chapter. Said sum shall be a charge against the fund.

IV. For the biennium ending June 30, 2025, the sum of $500,000 is hereby appropriated to the substance use prevention and recovery fund established in RSA 318-F:22 for the cost of developing and implementing a public education campaign prior to initiation of retail sales. Said sum shall be a charge against the fund.

V. After deducting appropriations charged to the fund for the cost of administration of this chapter, the remaining funds shall be appropriated and distributed on a quarterly basis as follows:

(a) The sum of $100,000 annually to the department of safety, information and analysis center, drug monitoring initiative, for data collection and reporting related to the health impacts of cannabis prohibition and cannabis regulation; and

(b) Of the remaining funds:

(1) Fifty percent of remaining funds shall be disbursed to the education trust fund established in RSA 198:39. The comptroller shall notify the commissioner of the department of revenue administration of the amount of the transfer. For the purpose of setting the education tax rate under RSA 76:3, the amount of revenue required to be collected pursuant to RSA 76:3 shall be reduced by the amount transferred to the education trust fund as required in this subparagraph, and the commissioner shall set the rate at a level sufficient to generate the reduced amount. This rate shall be effective for the following fiscal year.

(2) Thirty percent of remaining funds shall be disbursed to the department of administrative services to be credited to the New Hampshire retirement system to offset the retirement system's unfunded accrued liability. Upon certification by the commissioner of the department of administrative services that the retirement system has no remaining unfunded accrued liability, this disbursement of funds shall be credited to the education trust fund established in RSA 198:39.

(3) Ten percent of remaining funds, or $25,000,000, whichever is less, shall be credited to the substance abuse prevention and recovery fund in RSA 318-F:22 for use by the department of health and human services, bureau of drug and alcohol services, in evidence-based, voluntary programs for substance use-related education, prevention, treatment, and recovery that includes mental health treatment that is contributing to substance misuse, and for scientifically and medically accurate public education campaigns educating youth and adults about the health and safety risks of alcohol, tobacco, cannabis, and other substances, including education campaigns separately targeting youth and adults that provide medically and scientifically accurate information about the health and safety risks posed by cannabis use, including driving under the influence of cannabis.

(4) Five percent of remaining funds shall be disbursed to public safety agencies, including police, fire, and rescue agencies, for the hiring and training of additional drug recognition experts, for advanced roadside impaired driving enforcement training, and to assist in responding to drug overdose incidents.

(5) Five percent of remaining funds shall be disbursed to the department of health and human services, division for behavioral health, bureau of children's behavioral health, to be used for children's behavioral health services.

318-F:22 Substance Abuse Prevention and Recovery Fund Established. There is hereby established in the state treasury the substance abuse prevention and recovery fund that shall be kept distinct and separate from all other funds. All proceeds allocated to the fund pursuant to RSA 318-F:21 shall be deposited in the fund. The state treasurer shall invest the fund in accordance with RSA 6:8. Any earnings on fund moneys shall be added to the fund. All moneys in the fund shall be nonlapsing and shall be continually appropriated to the commissioner of the department of health and human services for the purposes and in the manner set forth in RSA 126-A:98.

318-F:23 Excise Tax Imposed.

I. An excise tax on the monthly total gross revenue derived from sales or transfers to a retail cannabis store of either cannabis or cannabis products in their final form by either a licensed cannabis cultivation facility or a cannabis product manufacturing facility is imposed at the rate of 12.5 percent.

II. Each licensed cannabis cultivation facility or cannabis product manufacturing facility shall pay 100 percent of the assessment in paragraph I for the assessment period no later than the 15th day of the month following the assessment period.

III. If a licensed cannabis cultivation facility or cannabis product manufacturing facility does not pay the monthly tax as required under this section, a fine of 10 percent of the tax owed shall be applied to the payment and collected by the commission from the licensee.

IV. The commission shall ascertain the selling or transfer price of the cannabis or cannabis products when the seller and purchaser are affiliated persons or entities and when the sale or transfer of the cannabis or cannabis product is not an arm's length transaction.

V. The commission shall adopt rules under RSA 541-A relative to the tax rate and procedures needed to implement the provisions of this section.

VI. The commission shall study the efficacy of the rate and scope of the cannabis tax imposed by this section, including whether adjustments may be needed in said rate and scope, and shall, no later than October 1, 2024, and on or before October 1 of every year thereafter, certify its findings and recommendations in a report to the general court and the governor. The commission shall include in said report the dollar amounts of all fees and tax revenues assessed and collected pursuant to the provisions of this chapter during the period covered by the report. The commission shall provide copies of said report to the chairs and minority leaders of the house and senate committees on ways and means, on finance, and on commerce.

8 Controlled Drug Act; Definitions. Amend the introductory paragraph in RSA 318-B:1, X-a(k) to read as follows:

(k) Objects used or intended for use or customarily intended for use in ingesting, inhaling, or otherwise introducing [~~marijuana,~~] cocaine[~~, hashish, or hashish oil~~] into the human body, such as:

9 Controlled Drug Act; Penalties. Amend the introductory paragraph in RSA 318-B:26, I to read as follows:

I. Any person who manufactures, sells, prescribes, administers, or transports or possesses with intent to sell, dispense, or compound any controlled drug, controlled drug analog or any preparation containing a controlled drug, except as authorized in this chapter ***or as otherwise authorized by law***; or manufactures, sells, or transports or possesses with intent to sell, dispense, compound, package or repackage (1) any substance which he ***or she*** represents to be a controlled drug, or controlled drug analog, or (2) any preparation containing a substance which he ***or she*** represents to be a controlled drug, or controlled drug analog, shall be sentenced as follows, except as otherwise provided in this section:

10 Controlled Drug Act; Penalties. Amend the introductory paragraph in RSA 318-B:26, II to read as follows:

II. Any person who knowingly or purposely obtains, purchases, transports, or possesses actually or constructively, or has under his control, any controlled drug or controlled drug analog, or any preparation containing a controlled drug or controlled drug analog, except as authorized in this chapter ***or as otherwise authorized by law***, shall be sentenced as follows, except as otherwise provided in this section:

11 Controlled Drug Act; Penalties. Amend RSA 318-B:26, II(c)-(e) to read as follows:

(c) In the case of more than 3/4 ounce of marijuana or more than 5 grams of hashish, including any adulterants or dilutants[~~,~~] ***is possessed by a person who is under 21 years of age, or, in the case of an amount exceeding the possession limit defined in RSA 318-F:1 possessed by a person who is 21 years of age or older, except if possessed by a person authorized pursuant to RSA 126-X,*** the person shall be guilty of a misdemeanor. [~~In the case of marijuana-infused products possessed by persons under the age of 21 or marijuana-infused products as defined in RSA 318-B:2-c, other than a personal use amount of a regulated marijuana-infused product as defined in RSA 318-B:2-c, I(b), that are possessed by a person 21 years of age or older, the person shall be guilty of a misdemeanor.~~]

(d) In the case of 3/4 ounce or less of marijuana or 5 grams or less of hashish, including any adulterants or dilutants, ***that is possessed by a person who is under 21 years of age,*** the person shall be guilty of a violation pursuant to RSA 318-B:2-c. [~~In the case of a person 21 years of age or older who possesses a personal use amount of a regulated marijuana-infused product as defined in RSA 318-B:2-c, I(b), the person shall be guilty of a violation pursuant to RSA 318-B:2-c.~~]

(e) In the case of a residual amount of a controlled [~~substance,~~] ***drug, other than marijuana*** [~~as defined in RSA 318-B:1, XXIX-a~~], a person shall be guilty of a misdemeanor if the person is not part of a service syringe program under RSA 318-B:43.

12 Controlled Drug Act; Penalties. Amend RSA 318-B:26, III(a) to read as follows:

(a) [~~Except as provided in RSA 318-B:2-c,~~] Controls any premises or vehicle where he or she knows a controlled drug or its analog, ***other than marijuana,*** is illegally kept or deposited;

13 Personal Possession of Marijuana. Amend RSA 318-B:2-c to read as follows:

318-B:2-c [~~Personal~~] Possession of Marijuana ***by a Person Under 21 Years of Age.***

[~~I.~~] In this section:

[~~(a)~~] ***I.*** "Marijuana" includes the leaves, stems, flowers, and seeds of all species of the plant genus cannabis, but shall not include the resin extracted from any part of such plant and every compound, manufacture, salt, derivative, mixture, or preparation from such resin including hashish, and further, shall not include the mature stalks of such plant, fiber produced from such stalks, oil or cake made from the seeds of such plant, any other compound, manufacture, salt, derivative, mixture, or preparation of such mature stalks, fiber, oil or cake, or the sterilized seed of such plant which is incapable of germination.

[~~(b) "Personal use amount of a regulated marijuana-infused product" means one or more products that is comprised of marijuana, marijuana extracts, or resins and other ingredients and is intended for use or consumption, such as, but not limited to, edible products, ointments, and tinctures, which was obtained from a state where marijuana sales to adults are legal and regulated under state law, and which is in its original, child-resistant, labeled packaging when it is being stored, and which contains a total of no more than 300 milligrams of tetrahydrocannabinol.~~]

II. Except as provided in RSA 126-X, any person ***under 21 years of age*** who knowingly possesses 3/4 of an ounce or less of marijuana, including adulterants or dilutants, shall be guilty of a violation, and subject to the penalties provided in paragraph V.

III. Except as provided in RSA 126-X, any person ***under 21 years of age*** who knowingly possesses 5 grams or less of hashish, including adulterants or dilutants, shall be guilty of a violation, and subject to the penalties provided in paragraph V.

IV. [~~Except as provided in RSA 126-X, any person 21 years of age or older possessing a personal use amount of a regulated marijuana-infused product shall be guilty of a violation, and subject to the penalties provided in paragraph V. Persons 18 years of age or older and under 21 years of age who knowingly possess marijuana-infused products shall be guilty of a misdemeanor.~~

~~V.~~](a) Except as provided in this paragraph, any person 18 years of age or older who is convicted of violating paragraph II or III[~~, or any person 21 years of age or older who is convicted of violating paragraph IV~~] shall be subject to a fine of $100 for a first or second offense under this paragraph, or a fine of up to $300 for any subsequent offense within any 3-year period; however, any person convicted based upon a complaint which alleged that the person had 3 or more prior convictions for violations of paragraph II[~~,~~] ***or*** III[~~ or IV~~], or under reasonably equivalent offenses in an out-of-state jurisdiction since the effective date of this paragraph, within a 3-year period preceding the fourth offense shall be guilty of a class B misdemeanor. The offender shall forfeit the marijuana[~~, regulated marijuana-infused products,~~] or hashish to the state. A court shall waive the

fine for a single conviction within a 3-year period upon proof that person has completed a substance abuse assessment by a licensed drug and alcohol counselor within 60 days of the conviction. A person who intends to seek an assessment in lieu of the fine shall notify the court, which shall schedule the matter for review after 180 days. Should proof of completion of an assessment be filed by or before that time, the court shall vacate the fine without a hearing unless requested by a party.

(b) Any person under 18 years of age who is convicted of violating paragraph II or III shall forfeit the marijuana or hashish and shall be subject to a delinquency petition under RSA 169-B:6.

[~~VI.~~] *V.*(a) Except as provided in this section, no person shall be subject to arrest for a violation of paragraph II[~~,~~] ***or*** III[~~, or IV~~] and shall be released provided the law enforcement officer does not have lawful grounds for arrest for a different offense.

(b) Nothing in this chapter shall be construed to prohibit a law enforcement agency from investigating or charging a person for a violation of RSA 265-A.

(c) Nothing in this chapter shall be construed as forbidding any police officer from taking into custody any minor who is found violating paragraph II[~~,~~] ***or*** III[~~, or IV~~].

(d) Any person ***under 21 years of age who is*** in possession of an identification card, license, or other form of identification issued by the state or any state, country, city, or town, or any college or university, who fails to produce the same upon request of a police officer or who refuses to truthfully provide his or her name, address, and date of birth to a police officer who has informed the person that he or she has been found to be in possession of what appears to the officer to be 3/4 of an ounce or less of marijuana[~~, a personal use amount of a regulated marijuana infused product,~~] or 5 grams or less of hashish, may be arrested for a violation of paragraph II[~~,~~] ***or*** III[~~, or IV~~].

[~~VII.~~] ***VI.*** All fines imposed pursuant to this section shall be deposited into the alcohol abuse prevention and treatment fund established in RSA 176-A:1 and utilized for evidence-informed substance abuse prevention programs.

[~~VIII.~~] ***VII.***(a) No record that includes personally identifiable information resulting from a violation of this section shall be made accessible to the public, federal agencies, or agencies from other states or countries.

(b) Every state, county, or local law enforcement agency that collects and reports data for the Federal Bureau of Investigation Uniform Crime Reporting Program shall collect data on the number of violations of paragraph II[~~,~~] ***or*** III[~~, or IV~~]. The data collected pursuant to this paragraph shall be available to the public. A law enforcement agency may update the data annually and may make this data available on the agency's public Internet website.

14 Alcohol or Drug Impairment; Possession of Drugs. Amend RSA 265-A:43 to read as follows:

265-A:43 Possession of Drugs. Any person who drives on any way a vehicle while knowingly having in his or her possession or in any part of the vehicle a controlled drug or controlled drug analog in violation of the provisions of RSA 318-B shall be guilty of a misdemeanor, and his or her

license shall be revoked or his or her right to drive denied for a period of 60 days and at the discretion of the court for a period not to exceed 2 years. This section shall not apply to the possession of marijuana or hashish as provided in RSA 318-B:2-c[~~, or a personal use amount of a regulated marijuana infused product as defined in RSA 318-B:2-c, I(b)~~].

15 New Section; Sentences; Annulment of Certain Arrests and Convictions for Cannabis. Amend RSA 651 by inserting after section 5-b the following new section:

651:5-c Certain Crimes Not to be Pursued; Dismissal.

I. As used in this section:

(a) "Cannabis" means "cannabis" as defined in RSA 318-F:1, II.

(b) "Possession limit" means "possession limit" as defined in RSA 318-F:1, XVIII.

II.(a) Except to the extent required to dismiss, withdraw, or terminate the charge, no prosecutor shall pursue any charge based on crimes or offenses pending with a court that occurred prior to the effective date of RSA 318-F, involving a person 21 years of age or older knowingly or purposely obtaining, purchasing, transporting, manufacturing or possessing, actually or constructively, or having under his or her control, no more than the possession limit of cannabis where the offense occurred before the effective date of RSA 318-F.

(b) The existence of convictions in other counts within the same case that are not eligible for dismissal pursuant to this section or other applicable laws shall not prevent any conviction otherwise eligible for dismissal under this section from being dismissed pursuant to this section.

III. On the first day of the fifth month next following the effective date of RSA 318-F, any guilty verdict, plea, placement in a diversionary program, or other entry of guilt on a matter that was entered prior to that effective date, but the judgment of conviction or final disposition on the matter was not entered prior to that date, and the guilty verdict, plea, placement in a diversionary program, or other entry of guilt solely involved one or more crimes or offenses involving a person 21 years of age or older knowingly or purposely obtaining, purchasing, transporting, manufacturing or possessing, actually or constructively, or having under his or her control, no more than the possession limit of cannabis, shall be vacated by operation of law. The judicial branch, in consultation with the attorney general, may take any administrative action as may be necessary to vacate the guilty verdict, plea, placement in a diversionary program, or other entry of guilt.

16 Assessment; Education Tax. Amend RSA 76:3 to read as follows:

76:3 Education Tax. Beginning July 1, 2005, and every fiscal year thereafter, the commissioner of the department of revenue administration shall set the education tax rate at a level sufficient to generate revenue of $363,000,000, ***less any amount credited to the education trust fund pursuant to RSA 318-F:25,*** when imposed on all persons and property taxable pursuant to RSA 76:8, except property subject to tax under RSA 82 and RSA 83-F. The education property tax rate shall be effective for the following fiscal year. The rate shall be set to the nearest 1/2 cent necessary to generate the revenue required in this section.

17 Use of Cannabis for Therapeutic Purposes; Definition of Alternative Treatment Center. Amend RSA 126-X:1, I to read as follows:

I. "Alternative treatment center" means a ***domestic business corporation organized under RSA 293-A, a domestic limited liability company organized under RSA 304-C, or a*** not-for-profit [~~entity~~] ***voluntary corporation organized under RSA 292 that is*** registered under RSA 126-X:7 that acquires, possesses, cultivates, manufactures, delivers, transfers, transports, sells, supplies, and dispenses cannabis, and related supplies and educational materials, to qualifying patients, designated caregivers, other alternative treatment centers, and visiting qualifying patients.

18 Use of Cannabis for Therapeutic Purposes; Departmental Administration. Amend RSA 126-X:7, IV(a)(4) to read as follows:

(4) The name, address, and date of birth of each principal officer and board member of the alternative treatment center. The board of ***directors, or board of managers as applicable,*** for the [~~nonprofit~~] ***alternative treatment center*** shall include at least one physician, advance practice registered nurse, or pharmacist licensed to practice in New Hampshire and at least one patient qualified to register as a qualifying patient. The majority of board members***, or managers as applicable,*** shall be New Hampshire residents. A medical professional listed in this subparagraph may be a member of the alternative treatment center board ***or directors, or managers as applicable,*** but shall not maintain an ownership interest in the center.

19 Use of Cannabis for Therapeutic Purposes; Alternative Treatment Center Requirements. Amend RSA 126-X:8, I to read as follows:

I. An alternative treatment center shall be operated on a ***for profit or*** not-for-profit basis for the benefit of its patients. An alternative treatment center need not be recognized as a tax-exempt organization by the Internal Revenue Service.

20 New Paragraphs; Use of Cannabis for Therapeutic Purposes; Alternative Treatment Center Requirements. Amend RSA 126-X:8 by inserting after paragraph XVIII the following new paragraphs:

XIX. Except as otherwise provided in this chapter, an alternative treatment center shall be subject to RSA 293-A if organized as a domestic business corporation, RSA 304-C if organized as a domestic limited liability company, and RSA 292 if organized as a voluntary corporation.

XX. An alternative treatment center organized as a voluntary corporation under RSA 292 may, on or before December 31, 2024, convert from a voluntary corporation under RSA 292 to either a domestic business corporation organized under RSA 293-A or a limited liability company organized under RSA 304-C in any of the following ways:

(a) By adopting a plan of entity conversion in accordance with RSA 293-A or RSA 304-C, as applicable, that includes a provision prohibiting the sale of memberships or shares to a foreign corporation for a period of 3 years, provided that each such conversion shall be authorized by a vote

of 2/3 of the members of the board of directors at a meeting duly called for the purpose or by unanimous written consent.

(b) By adopting a plan of merger in accordance with RSA 293-A that includes a provision prohibiting the sale of memberships or shares to a foreign corporation for a period of 3 years, for which the domestic business corporation shall be the surviving entity, provided that, such merger shall be authorized by a vote of 2/3 of the members of the board of directors of the alternative treatment center at a meeting duly called for the purpose or by unanimous written consent.

(c) By adopting a plan of merger in accordance with RSA 304-C that includes a provision prohibiting the sale of memberships or shares to a foreign corporation for a period of 3 years, for which the domestic limited liability company shall be the surviving entity, provided that, such merger shall be authorized by a vote of 2/3 of the members of the board of directors at a meeting duly called for the purpose or by unanimous written consent.

XXI. Articles of entity conversion or articles of merger, as applicable, shall be signed and submitted to the secretary of state pursuant to RSA 293-A or RSA 304-C, as applicable, and the secretary of state shall approve all such filings submitted pursuant to this section.

XXII. The secretary of state shall certify such articles of entity conversion or articles of merger and shall provide them to the department. Upon receipt, the department shall update the existing licenses held by the converted or merged alternative treatment center.

XXIII. For the purposes of converting or merging an alternative treatment center pursuant to this section, notwithstanding any provision in the articles of agreement or alternative treatment center license applications to the contrary, the members of an alternative treatment center's board of directors may determine that a plan of entity conversion or merger is consistent with its corporate charter, and such voluntary corporation may surrender its articles of agreement in connection with the plan of entity conversion or merger.

XXIV.(a) Any alternative treatment center choosing to convert or merge pursuant to this section shall obtain an independent fair market valuation of its total assets as of June 30, 2024. The valuation of the total assets of such alternative treatment center, if positive, shall be distributed to one or more charitable organizations solely for charitable purposes. The director of charitable trusts shall receive a copy of the valuation and may file any objection relating thereto with the court within 60 days. Except as set forth in this section and notwithstanding any other law to the contrary, no portion of the assets of such alternative treatment center after the conversion or merger, as applicable, shall be deemed to be charitable assets.

(b) Any alternative treatment center choosing to convert or merge pursuant to this section shall submit a copy of the plan of conversion or merger to the director of charitable trusts. The director may file an objection relating to the plan with the court within 60 days.

(c) Any alternative treatment center that has converted or merged pursuant to this section shall, on December 31, 2024 and thereafter for 2 years, annually file a letter with the director of charitable trusts certifying compliance with the requirements of RSA 126-X:8, XX.

21 Voluntary Corporations; Change of Name. Amend RSA 292:7 to read as follows:

292:7 Change of Name; Amending Articles.

I. Any corporation now or hereafter organized or registered in accordance with the provisions of this chapter, and any existing corporation which may have been so organized or registered, may change its name, increase or decrease its capital stock or membership certificates, merge with or acquire any other corporation formed pursuant to this chapter, or amend its articles of agreement, by a majority vote of such corporation's board of directors or trustees, at a meeting duly called for that purpose, and by recording a certified copy of such vote in the office of the secretary of state and in the office of the clerk of the town or city in this state which is its principal place of business. In the case of a foreign nonprofit corporation registered in New Hampshire, a copy of the amendment or plan of merger, certified by the proper officer of the state of incorporation, shall be filed with the secretary of state, together with the fee provided in RSA 292:5. The surviving corporation in a merger shall continue to have all the authority and powers vested in the merging corporations, including any powers previously conferred upon them by the legislature.

II. An alternative treatment center registered pursuant to RSA 126-X and organized under this chapter may, pursuant to RSA 126-X:8, XX, convert to either a domestic corporation organized under RSA 293-A or a limited liability company organized under to RSA 304-C, and may merge with a domestic business corporation organized under RSA 293-A or a limited liability company organized under RSA 304-C.

22 New Subparagraph; New Hampshire Business Corporations Act; Entity Conversion Authorized. Amend RSA 293-A:9.50 by inserting after subparagraph (f) the following new subparagraph:

(g) Alternative treatment centers registered pursuant to RSA 126-X and organized pursuant to RSA 292 may become a domestic corporation pursuant to a plan of conversion in accordance with RSA 126-X:8, XX and this subdivision. The alternative treatment center shall be deemed to be a domestic unincorporated entity for purposes of applying RSA 293-A:9.50 through RSA 293-A:9.56, except that approval of the conversion shall be as outlined in RSA 126-X:8, XX.

23 Limited Liability Companies; Statutory Conversions. Amend RSA 304-C:149, I to read as follows:

I. Any other business entity, ***including alternative treatment centers pursuant to RSA 126-X:8, XX,*** may make a statutory conversion of its business organization form to the limited liability company business organization form under this act by complying with the requirements of this section and with applicable law governing the other business entity. ***Approval of a***

conversion of an alternative treatment center pursuant to this paragraph shall be as outlined in RSA 126-X:8, XX.

24 New Paragraph; Limited Liability Companies; Statutory Conversions. Amend RSA 304-C:149 by inserting after paragraph VIII the following new paragraph:

IX. In the case of the conversion of an alternative treatment center registered under RSA 126-X and organized pursuant to RSA 292, such conversion shall be approved by the board of directors in accordance with RSA 126-X:8, XX.

25 Liquor Investigation; Training. Amend RSA 176:9 to read as follows:

I. The commission may, subject to rules adopted by the director of personnel, employ and dismiss liquor investigators. Liquor investigators shall, under the direction of the commission, investigate any or all matters arising under this title ***and under RSA 318-F.***

II. Any new liquor investigator employed by the commission under this section after August 13, 1985, shall, within 6 months of employment, satisfactorily complete a preparatory police training program as provided by RSA 106-L:6, unless he or she has already completed such a program.

III. The commissioner, deputy commissioner, assistant, or liquor investigator may enter any place where liquor, beverages, tobacco products, e-cigarettes***, or cannabis*** are sold, [~~or~~] manufactured, ***or cultivated*** at any time, and may examine any license or permit issued or purported to have been issued under the terms of this title. They shall make complaints for violations of this title.

26 Liquor Commission; Assistants and Employees. Amend RSA 176:7 to read as follows:

176:7 Assistants and Employees.

I. The state liquor commission may employ such assistants as are, in its opinion, necessary for the proper transaction of its business, and fix their compensation, subject to the rules of the director of personnel. It may secure any necessary technical or professional assistance.

II. The commission may select and retain market consultants through a competitive bidding process approved by the governor and the executive council. Any such contract with a third-party agent shall be for consulting services relating to marketing and regulation of cannabis for purposes of cultivation, manufacturing, testing, and retail sale.

27 Prosecutions. Amend RSA 179:59 to read as follows:

179:59 Prosecutions. The commission shall appoint liquor investigators whose primary function shall be the proper prosecution of this title ***and RSA 318-F.*** The liquor investigators shall have statewide jurisdiction, with reference to enforcement of all laws either in cooperation with, or independently of, the officers of any county or town. The commission shall have the primary responsibility for the enforcement of all liquor and beverage laws ***and cannabis laws*** upon premises where liquor, [~~and~~] beverages***, and cannabis*** are lawfully sold, stored, distributed, or manufactured ***or cultivated.*** Any person violating the provisions of any law may be prosecuted by

the commission or any of its investigators as provided in this section, or by county or city attorneys, or by sheriffs or their deputies, or by police officials of towns.

28 New Paragraph; Commission to Sell. Amend RSA 176:11 by inserting after paragraph II the following new paragraph:

III. In the event that the commission determines New Hampshire cannabis revenues are being diverted by actions taken by persons holding any type of cannabis license, the commission may take such marketing or merchandising action, or both, as it deems necessary, including sanctions against the competing entities.

29 New Paragraph; Retail Tobacco License. Amend RSA 178:19-a by inserting after paragraph V the following new paragraph:

VI. A retail tobacco license is authorized to sell cannabis accessories and cannabis paraphernalia as defined in RSA 318-F.

30 Liquor Commission; Commission. Amend RSA 176:1 to read as follows:

176:1 Commission. There shall be a state liquor ***and cannabis*** commission under the executive direction of a liquor ***and cannabis*** commissioner, who shall also be known as the chairman of the liquor ***and cannabis*** commission, appointed by the governor with the consent of the council. The commissioner shall have significant business management experience and shall complete a criminal history records check prior to confirmation by the council. The liquor ***and cannabis*** commissioner shall hold office for a term of 4 years. If a vacancy shall occur, it shall be filled for the remainder of the term. The commissioner may be removed by the governor and council for cause.

31 New Paragraph; Rulemaking; Liquor and Cannabis Commission. Amend RSA 176:14 by inserting after paragraph IX the following new paragraph:

IX-a. Cannabis licenses, including:

(a) Procedures for the application for, issuance, transfer, denial, renewal, suspension, and revocation of a license for cannabis establishments.

(b) License operations for each cannabis license type.

(c) Collection of additional fees as required by statute.

32 Name Change; Liquor and Cannabis Commission. Amend the following RSAs by replacing "liquor commission" with "liquor and cannabis commission": 6:12, I(b)(285); 6:12-j, V(b)(2); 9:11, II(b)(5); 9-C:7, II; 12-J:1, III(a)(4); 12-O:18, II; 21:33-a, III(a); 21-G:6-b, IV(c); 21-I:18, I(b); 21-J:14, 5(d)(9); 21-P:64, I(a)(6); 78:7; 78:16, II; 78:23, 94:1-a; the introductory paragraph of 100-A:1, VII(a); 106-L:6, XVII; 110-B:28, VI; the introductory paragraph of 126-AA:3, VI; 126-K:2, II; 167:7-b, II(a); 175:1, XXIV; the chapter heading of RSA Chapter 176; 176:2; 176:2-a; the introductory paragraph of 176:3; 176:7; 176:16; 176:17; 176:18; 176-A:1, III-IV; 177:1; 177:1-a; the introductory paragraph 177:3; 177:13; 178:11, V; 178:12-a, XIV; 178:13, XIII; 178:22, V(h)(12); 178:27; 178:27-a; the introductory paragraph of 178:27-b, V; 179:21; 179:33, IV; 179:38; 179:56, III(b); 180:1, II; 279:1, XVI; 284:21-h, II(a); and 663:5.

33 Appropriations.

I. The sum of $100,000 for the fiscal year ending June 30, 2025 is hereby appropriated to the department of safety, information and analysis center, drug monitoring initiative, for the purpose of collecting baseline data to be used in the reports required pursuant to RSA 318-F:20. The governor is authorized to draw a warrant for said sum out of any money in the treasury not otherwise appropriated.

II. The sum of $7,000,000 for the fiscal year ending June 30, 2024 is appropriated to the liquor commission for the cost of administration of RSA 318-F. The governor is authorized to draw a warrant for said sum from any money in the treasury not otherwise appropriated.

III. The sum of $8,000,000 for the fiscal year ending June 30, 2025 is hereby appropriated to the liquor commission for deposit into the cannabis fund established in RSA 318-F:21 for the administration of RSA 318-F. The governor is authorized to draw a warrant for said sum out of any money in the treasury not otherwise appropriated.

IV. The sum of $500,000 for the biennium ending June 30, 2025 is hereby appropriated to the substance use prevention and recovery fund established in RSA 318-F:22 for the cost of developing and implementing a public education campaign prior to initiation of retail sales.

34 Repeal. RSA 318-B:1, X-a(g), relative to separation gins and sifters used or intended for use with cannabis, is repealed.

35 Effective Date.

I. RSA 318-F:15, IX, as inserted by section 7 of this act, shall take effect upon certification by the attorney general of New Hampshire to the director of the office of legislative services and the secretary of state that the conduct allowed by that paragraph has become legal under the United States Code.

II. The remainder of this act shall take effect upon its passage.

LBA
23-0528
Amended 3/13/23

HB 639-FN-A- FISCAL NOTE
AS AMENDED BY THE HOUSE (AMENDMENT #2023-0543h)

AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

FISCAL IMPACT: [X] State [X] County [X] Local [ ] None

	Estimated Increase / (Decrease)			
STATE:	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Appropriation	$0	$4,600,000	$2,100,000	$0
Revenue	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase
Expenditures	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase
Funding Source:	[X] General [ ] Education [ ] Highway [X] Other - Drug Forfeiture Fund, Cannabis Fund, Substance Abuse Prevention and Recovery Fund, Alcohol Abuse, Prevention and Treatment Fund, Education Trust Fund, Victims' Assistance Fund , Judicial Branch IT Fund , New Hampshire Retirement Unfunded Accrued Liability and Various Government Funds			

COUNTY:

Revenue	$0	$0	$0	$0
Expenditures	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase

LOCAL:

Revenue	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase
Expenditures	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase

METHODOLOGY:

This bill establishes procedures for the legalization, regulation, and taxation of cannabis; the licensing and regulation of cannabis establishments; and makes appropriations therefor.

The New Hampshire Liquor Commission makes the following assumptions concerning the bill as amended by the House:

- The bill establishes regulation of the cultivation, wholesaling, distribution, and retail sale of cannabis products including the sale of so called "edibles". The Liquor Commission would have prime responsibility for licensing and enforcement.

- The bill requires the Commission to license a variety of businesses operations, inspect crops and the cultivation of the products and the processing and delivery of the product to the wholesale and retail marketplace.
- No later than one year after the bill's effective date, the Commission would be required to initiate the rulemaking process for the licensing and regulation of cannabis cultivation facilities and for the issuance of dual use certificates. Not later than 15 months after the effective date, the Commission shall initiate rulemaking for the licensing and regulation of all other cannabis establishments and on the manufacture and sale of cannabis accessories. The Commission believes this time line is relatively short given the scope of the legislation is comprehensive.
- Much of the effort in FY 2024-2025 will be to hire a consultant, assign staff to projects necessary for implementation of the program and prepare for applications and licensure of cannabis establishments. The Commission does not believe the timeliness established in the bill are achievable. The Commission expects year one (FY 2024) of the bill will be occupied by the administrative rulemaking process, development of RFP's, evaluating inventory and tracking systems and determining how to integrate external systems with the Commission's existing point-of -sale systems.
- The bill does not appear to restrict how the Commission may expend the appropriations in fulfillment of the legislatively prescribed mission.

The Liquor Commission offers the following information regarding the fiscal impact of the bill:

- Expenses in FY 2024 will be centered around RFP development to hire a consultant and the 10% stipend for staff engaged in the development and all administrative aspects of the program.
- Because the sale of cannabis is not currently lawful in the State of New Hampshire the Commission has no data upon which to build revenue projections. The Commission is unable to predict revenues that would be generated from the licensure of various cannabis businesses, or the length of time needed to achieve any fiscal milestones.
- The bill proposes a tax of 15% of the gross revenue generated by each licensed cannabis cultivation facility.
- The Commission will need legislative authority to establish additional staff needed for program administration. The Commission anticipates additional personnel to be hired in support of the newly assigned responsibilities.

Administration and Finance.

- All transactions, purchases, legal and fiscal matters associated with the bill would be administered through the existing Division of Administration and Finance.
- The Commission would need to explore how licensed facilities would report and pay their licensing fees and taxes electronically and whether the NextGen system being

implemented by the Commission for alcohol matters could be adapted to include cannabis revenue.

- Personnel would be added to this division to separately track all fiscal matters associated with the cannabis program and prepare the reports required by the bill. The newly hired personnel in this division would be issued equipment and materials consistent with the mission outlined in the bill.

Enforcement, Licensing and Regulation.

- New Enforcement personnel will be part of the initial hires necessary to prepare for the licensure and oversight responsibilities assigned in the bill. The Commission will expand the division by adding 10 new positions; five will be sworn personnel, four will be examiners and one will be a cannabis educational specialist. New staff will require equipment and supplies consistent with their positions.
- The Commission will establish and implement a training program to prepare the division for the responsibilities outlined in the bill.
- The division will establish a methodology to monitor and interact with the 13 cities, 221 towns and 25 unincorporated places as they take up the issue of ordinances permitting or limiting cannabis establishments in their communities.

The Liquor Commission is unable to provide detailed information on the anticipated number of positions needed or anticipated expenditures to establish, operate and enforce the provisions of proposed RSA 318-F relative to the regulation of cannabis. This bill appropriates $4,600,000 in FY 2024 for the cost of administration of RSA 318-F and $2,000,000 in FY 2025 is deposited into the cannabis fund for the administration of RSA 318-F.

The Department of Corrections states the bill would have an indeterminable impact on the number of parole violations associated with the use of cannabis that may cause a decrease in violation rates. This bill would also have an impact on state expenditure as an indeterminable number of individuals that would have their sentences annulled for prior convictions.

The Department of Health and Human Services indicates this bill would have an indeterminable impact on state revenues and expenditures due to the potential variability of sales revenue and unknowns around potential increase in consumption, treatment utilization, prevention needs, and associated costs. The Department's Bureau of Drug and Alcohol Services states there is considerable uncertainty about the impact that legalizing cannabis in New Hampshire would have on public budgets. The uncertainty is due to unknowns around potential increases in consumption, treatment utilization, prevention needs, and all associated costs. The Department reports the science is currently unsettled on the causal effects of cannabis on psychoses,

schizophrenia, and drugged driving. The Department is unable to determine if these areas would be impacted and create additional costs. Evidence supporting the treatment needs for cannabis use disorder, however, is documented, and it is assumed that treatment costs would increase with cannabis legalization, although such costs are also indeterminable. The Department assumes the Cannabis Commission could receive revenue of up to $700,000 in FY 2025 from the issuance of dual-use certificates to the seven currently registered alternative treatment center dispensary locations ($10,000 application fee and $90,000 certificate fee). Issuance of a dual-use certificate would allow taxable sales of cannabis to adult consumers by alternative treatment centers. The Department assumes it would need an additional Program Specialist IV position starting in FY 2026 at cost of approximately $93,000 for salary and benefits. The position would be responsible for:

- Coordination and management of the new Substance Abuse Prevention and Recovery Fund.
- Planning the development and modification of programs, policies, and procedures.
- Managing and evaluating the work product of state and local programs providing services.

The Department of Safety states calculating the fiscal impact of this bill is impossible due to the fact it is impossible to predict possible criminal activities related to cannabis legalization in New Hampshire. The Department is provided a $100,000 appropriation in FY 2025 for the purpose of collecting baseline data to be used in the reports required pursuant to RSA 318-F:20.

The New Hampshire Municipal Association indicates this bill would increase local expenditures and local revenue by indeterminable amounts. Based on review of limited research available relative to changes in policing related to cannabis legalization in any forms by other states, the Association identified the potential fiscal impacts listed below.

- Greater access to cannabis may increase youth access and driving while under the influence incidents, leading to a shift in law enforcement focus and a need for additional training in detection, such as Drug Recognition Expert (DRE) training. These shifts may increase law enforcement costs, particularly in the field of specialized training for detection of impairment by cannabis.
- There may be reduced law enforcement costs associated with drug detection and prosecution for simple possession cases, freeing up funds for other uses.
- Border states where cannabis is illegal, and which border states where some amount of cannabis is legal, have experienced additional incidents related to driving while under the influence, particularly in counties near the border. As New Hampshire is bordered on all sides by legalized states it is likely that some additional enforcement costs are already being borne by municipal police departments.

- Most research funded by National Institute of Justice grants shows that legalization has minimal, if any, effects on violent crime.
- Generally, research in states that have legalized cannabis has shown more patients presenting in the emergency department with physical or psychological symptoms resultant from using marijuana or commercial cannabis products. While no research appears to exist relative to the number of patients arriving via ambulance, it stands to reason that some portion of patients do utilize ambulance services to arrive at emergency departments. Additionally, there may be some number of users who call for emergency medical assistance that are not transported for treatment to the emergency department. Based on the information available, municipalities should expect some increase in costs associated with EMS, if limited legalization increases the incidence of individuals utilizing cannabis.

Regarding revenue, the Municipal Association is not able to provide an estimate of the revenue generated by the bill, but reports Vermont, which recently legalized both cannabis and cannabis products (such as, edibles) estimated between $40-$65 million in business profits, whereas Maine saw approximately $58 million in profit on $266 million in sales in 2020. It is possible that different approaches to marketing and businesses decisions relative to profit margins may result in state revenues that are significantly higher or lower than those provided above. Currently, 100% of the New Hampshire Retirement System's unfunded accrued liability sits on public employers, with municipalities seeing approximately 70% of their yearly employer contributions going toward the unfunded accrued liability. This bill contains language that provides funds from the cannabis fund to offset the Retirement System's unfunded accrued liability. The bill provides for broad-based aid to municipalities which have at least one store and funds and to public safety agencies, including police, fire, and rescue agencies. The Association indicates it is unclear how much additional revenue municipalities can expected.

This bill impacts penalties that may have an impact on the New Hampshire judicial and correctional systems. There is no method to determine how many fewer charges would be brought as a result of the changes contained in this bill to determine the fiscal impact on expenditures. However, the entities impacted have provided the potential costs associated with these penalties below.

Judicial Branch	FY 2023	FY 2024 through 12/31/23	FY 2024 (Starting 1/1/24 with repeal of Felonies First)
Violation and Misdemeanor Level Offense	$119	$122	$122
Routine Criminal Case	$644	$657	$779

Appeals	Varies	Varies	Varies

Judicial Council	FY 2023	FY 2024
Public Defender Program	Has contract with State to provide services.	Has contract with State to provide services.
Contract Attorney - Felony	$825/Case $105 administrative fee $200 incarceration fee (If applicable)	$825/Case $105 administrative fee $200 incarceration fee (If applicable)
Contract Attorney – Misdemeanor	$300/Case $70 administrative fee $100 incarceration fee (If applicable)	$300/Case $70 administrative fee $100 incarceration fee (If applicable)
Assigned Counsel - Felony. Travel time to court does not count toward the cap.	$90/Hour up to $5,500	$90/Hour up to $5,500
Assigned Counsel- Misdemeanor. Travel time to court does not count toward the cap.	$90/Hour up to $2,000	$90/Hour up to $2,000
Assigned Counsel - Supreme Court Appeal	$125/Hour up to $10,000	$125/Hour up to $10,000

It should be noted that a person needs to be found indigent and have the potential of being incarcerated to be eligible for indigent defense services. Historically, approximately 85% of the indigent defense caseload has been handled by the public defender program, with the remaining cases going to contract attorneys (14%) or assigned counsel (1%). Beginning in March of 2021, the public defender program has had to close intake of new cases due to excessive caseloads. Due to these closures, the contract and assigned counsel program have had to absorb significantly more cases. The system is experiencing significant delays in appointing counsel and the costs of representation have increased due to travel time and multiple appointments.

Department of Corrections	FY 2023	FY 2024
FY 2022 Average Cost of Incarcerating an Individual	$64,223	$64,223
FY 2022 Annual Marginal Cost of a General Population Inmate	$6,123	$6,123
FY 2022 Average Cost of Supervising an Individual on Parole/Probation	$688	$688

The Department notes any increase in the incarcerated population will have a direct impact on overtime costs given the Department's history of challenges associated with recruitment. In addition, the NH State Prison for Men has a degrading infrastructure which will only be exacerbated if an increase in the incarcerated population were to occur.

NH Association of Counties	FY 2023	FY 2024
County Prosecution Costs	Indeterminable	Indeterminable
Estimated Average Daily Cost of Incarcerating an Individual	$105 to $125	$105 to $125

The Judicial Branch indicates the fiscal impact on the Branch is indeterminable. It is assumed decriminalization of cannabis and hashish would result in a decrease in cannabis-related criminal filings in court. Because prosecutors file criminal charges that may involve cannabis

under a wide variety of criminal statutes, most of which involve a wide range of drugs in addition to cannabis, the Branch is not able to determine on average how many cannabis-only related cases are currently filed in the courts. The bill would also provide for new criminal penalties and civil causes of action for violations under the new statute created by the bill, but the Judicial Branch is unable to determine how many additional cases would result from the bill.

In addition, concerning annulment of certain arrests and convictions for cannabis, the Judicial Branch does not have sufficient information as to the number of cases will be in this status as of the effective date to estimate a fiscal impact of this provision. The bill would result in fewer criminal cases going forward for what is decriminalized under this bill and new criminal cases that would be filed under the penalty provisions in the bill.

Current law provides, (RSA 106-L:10), that every court shall levy a penalty assessment of $2 or 24 percent, whichever is greater, on each fine or penalty imposed by the court for certain criminal offenses. Penalty assessments collected are divided 66.67 percent to the general fund, 16.67 percent to the Victims' Assistance Fund, and 16.67 percent to the Judicial Branch Information Technology Fund. The Judicial Branch is unable to determine the change in penalty assessments collected if the bill passes.

Many offenses are prosecuted by local and county prosecutors. When the Department of Justice has investigative and prosecutorial responsibility or is involved in an appeal, the Department may be able to absorb the cost within its existing budget. However, if the Department needs to prosecute significantly fewer cases or handle fewer appeals, then costs will decrease by an indeterminable amount.

It is assumed that any fiscal impact would occur after FY 2023.

This bill does not establish or authorize new positions.

AGENCIES CONTACTED:

Departments of Administrative Services, Corrections, Health and Human Services, Justice, New Hampshire Liquor Commission, Judicial Branch, Judicial Council, New Hampshire Municipal Association and New Hampshire Association of Counties

LBA
23-0528
Amended 5/9/23

HB 639-FN-A FISCAL NOTE
AS AMENDED BY THE HOUSE (AMENDMENT #2023-1231h)

AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

FISCAL IMPACT: [X] State [X] County [X] Local [ ] None

	Estimated Increase / (Decrease)			
STATE:	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Appropriation	$0	$7,500,000	$8,100,000	$0
Revenue	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase
Expenditures	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase
Funding Source:	[X] General [X] Education [ ] Highway [X] Other - Drug Forfeiture Fund, Cannabis Fund, Substance Abuse Prevention and Recovery Fund, Alcohol Abuse Prevention and Treatment Fund, Judicial Branch IT Fund, New Hampshire Retirement System Unfunded Accrued Liability and Various Government Funds			

COUNTY:

Revenue	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase
Expenditures	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase

LOCAL:

Revenue	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase
Expenditures	$0	Indeterminable Increase	Indeterminable Increase	Indeterminable Increase

In addition to the general fund appropriations in the table above, the bill makes the followng appropriations from the Cannabis Fund:

- $15 million to the cannabis commission for the biennium ending June 30, 2025 for administration of the Chapter.
- $500,000 to the Substance Use Prevention and Recovery Fund established in proposed RSA 318-F:22 for the biennium ending June 30, 2025 for the cost of developing and implementing a public education campaign prior to initiation of retail sales.
- $100,000 annually to the Department of Safety for data collection and reporting related to the health impacts of cannabis prohibition and cannabis regulation.

The remaing amounts in the Cannabis Fund will be distributed:

- 50% to the education trust fund to reduce the education tax in RSA 76:3;
- 30% to offset the retirement system's unfunded accrued liability;
- the lesser of 10% or $25 million shall be credited to the substance abuse prevention and recovery fund in RSA 318-F:22;
- 5% shall be disbursed to public safety agencies, including police, fire, and rescue agencies, and;
- 5% to the department of health and human services, division for behavioral health, bureau of children's behavioral health, to be used for children's behavioral health services.

The Office of Legislative Budget Assistant is unable to complete a fiscal note for this bill, as amended by the House, as it is awaiting information from the Liquor Commission. The Liquor Commission was originally contacted on April 12, 2023 and again with followup on May 2, 2023 for a fiscal note worksheet, which they have not provided as of May 8, 2023. When completed, the fiscal note will be forwarded to the Clerk's Office.

METHODOLOGY:

This bill establishes procedures for the legalization, regulation, and taxation of cannabis; the licensing and regulation of cannabis establishments; and makes appropriations therefor.

The Department of Corrections states the bill would have an indeterminable impact on the number of parole violations associated with the use of cannabis and may cause a decrease in violation rates. This bill may also reduce state expenditures as an indeterminable number of individuals that would have their sentences annulled for prior convictions.

The Department of Health and Human Services indicates this bill would have an indeterminable impact on state revenues and expenditures due to the potential variability of sales revenue and unknowns around the potential increase in consumption, treatment utilization, prevention needs, and associated costs. The Department's Bureau of Drug and Alcohol Services states there is considerable uncertainty about the impact that legalizing cannabis in New Hampshire would have on public budgets. The Department reports the science is currently unsettled on the causal effects of cannabis on psychoses, schizophrenia, and drugged driving. The Department is unable to determine if these areas would be impacted and create additional costs. Evidence supporting the treatment needs for cannabis use disorder, however, is documented, and it is assumed that treatment costs would increase with cannabis legalization, although such costs are also indeterminable. The Department assumes it will need an additional Program Specialist IV

position starting in FY 2026 at cost of approximately $93,000 for salary and benefits. This position would be responsible for:

- Coordination and management of the new Substance Abuse Prevention and Recovery Fund.
- Planning the development and modification of programs, policies, and procedures.
- Managing and evaluating the work product of state and local programs providing services.

The bill does not establish this position or an appropriation for the position.

The Department of Safety states calculating the fiscal impact of this bill is impossible because it is impossible to predict possible criminal activities related to cannabis legalization in New Hampshire. The Department is provided a $100,000 general appropriation in FY 2025 for the purpose of collecting baseline data to be used in the reports required pursuant to RSA 318-F:20. The Department would also receive an annual appropriation from the Cannabis Fund for data collection and reporting related to the health impacts of cannabis prohibition and cannabis regulation.

The New Hampshire Municipal Association indicates this bill would increase local expenditures and local revenue by indeterminable amounts. Based on review of limited research available relative to changes in policing related to cannabis legalization in any forms by other states, the Association identified the potential fiscal impacts listed below.

- Greater access to cannabis may increase youth access and driving while under the influence incidents, leading to a shift in law enforcement focus and a need for additional training in detection, such as Drug Recognition Expert (DRE) training. These shifts may increase law enforcement costs, particularly in the field of specialized training for detection of impairment by cannabis.
- There may be reduced law enforcement costs associated with drug detection and prosecution for simple possession cases, freeing up funds for other uses.
- Border states where cannabis is illegal, and which border states where some amount of cannabis is legal, have experienced additional incidents related to driving while under the influence, particularly in counties near the border. As New Hampshire is bordered on all sides by legalized states it is likely that some additional enforcement costs are already being borne by municipal police departments.
- Most research funded by National Institute of Justice grants shows that legalization has minimal, if any, effects on violent crime.

- Generally, research in states that have legalized cannabis has shown more patients presenting in the emergency department with physical or psychological symptoms resultant from using marijuana or commercial cannabis products. While no research appears to exist relative to the number of patients arriving via ambulance, it stands to reason that some portion of patients do utilize ambulance services to arrive at emergency departments. Additionally, there may be some number of users who call for emergency medical assistance that are not transported for treatment to the emergency department. Based on the information available, municipalities should expect some increase in costs associated with EMS, if limited legalization increases the incidence of individuals utilizing cannabis.

Regarding revenue, the Municipal Association is not able to provide an estimate of the revenue generated by the bill, but reports Vermont, which recently legalized both cannabis and cannabis products (such as, edibles) estimated between $40-$65 million in business profits, whereas Maine saw approximately $58 million in profit on $266 million in sales in 2020. It is possible that different approaches to marketing and businesses decisions relative to profit margins may result in state revenues that are significantly higher or lower than those provided above. Currently, 100% of the New Hampshire Retirement System's unfunded accrued liability sits on public employers, with municipalities seeing approximately 70% of their yearly employer contributions going toward the unfunded accrued liability. This bill contains language that provides funds from the cannabis fund to offset the Retirement System's unfunded accrued liability. The bill provides funds to public safety agencies, including police, fire, and rescue agencies. The Association indicates it is unclear how much additional revenue municipalities can expect.

This bill impacts penalties that may have an impact on the New Hampshire judicial and correctional systems. There is no method to determine how many fewer charges would be brought because of the changes contained in this bill to determine the fiscal impact on expenditures. However, the entities impacted have provided the potential costs associated with these penalties below.

Judicial Branch	FY 2023	FY 2024 through 12/31/23	FY 2024 (Starting 1/1/24 with repeal of Felonies First)
Violation and Misdemeanor Level Offense	$119	$122	$122

Routine Criminal Case	$644	$657	$779
Appeals	Varies	Varies	Varies

Judicial Council	FY 2023	FY 2024
Public Defender Program	Has contract with State to provide services.	Has contract with State to provide services.
Contract Attorney - Felony	$825/Case $105 administrative fee $200 incarceration fee (If applicable)	$825/Case $105 administrative fee $200 incarceration fee (If applicable)
Contract Attorney – Misdemeanor	$300/Case $70 administrative fee $100 incarceration fee (If applicable)	$300/Case $70 administrative fee $100 incarceration fee (If applicable)
Assigned Counsel - Felony. Travel time to court does not count toward the cap.	$90/Hour up to $5,500	$90/Hour up to $5,500
Assigned Counsel- Misdemeanor. Travel time to court does not count toward the cap.	$90/Hour up to $2,000	$90/Hour up to $2,000
Assigned Counsel - Supreme Court Appeal	$125/Hour up to $10,000	$125/Hour up to $10,000

It should be noted that a person needs to be found indigent and have the potential of being incarcerated to be eligible for indigent defense services. Historically, approximately 85% of the indigent defense caseload has been handled by the public defender program, with the remaining cases going to contract attorneys (14%) or assigned counsel (1%). Beginning in March of 2021, the public defender program has had to close intake of new cases due to excessive caseloads. Due to these closures, the contract and assigned counsel program have had to absorb significantly more cases. The system is experiencing significant delays in appointing counsel and the costs of representation have increased due to travel time and multiple appointments.

Department of Corrections	FY 2023	FY 2024
FY 2022 Average Cost of Incarcerating an Individual	$64,223	$64,223
FY 2022 Annual Marginal Cost of a General Population Inmate	$6,123	$6,123
FY 2022 Average Cost of Supervising an Individual on Parole/Probation	$688	$688

The Department notes any increase in the incarcerated population will have a direct impact on overtime costs given the Department's history of challenges associated with recruitment. In addition, the NH State Prison for Men has a degrading infrastructure which will only be exacerbated if an increase in the incarcerated population were to occur.

NH Association of Counties	FY 2023	FY 2024
County Prosecution Costs	Indeterminable	Indeterminable
Estimated Average Daily Cost of Incarcerating an Individual	$105 to $125	$105 to $125

The Judicial Branch indicates the fiscal impact on the Branch is indeterminable. It is assumed decriminalization of cannabis and hashish would result in a decrease in cannabis-related criminal filings in court. Because prosecutors file criminal charges that may involve cannabis under a wide variety of criminal statutes, most of which involve a wide range of drugs in addition to cannabis, the Branch is not able to determine on average how many cannabis-only related cases are currently filed in the courts. The bill would also provide for new criminal penalties and civil causes of action for violations under the new statute created by the bill, but the Judicial Branch is unable to determine how many additional cases would result from the bill.

In addition, concerning annulment of certain arrests and convictions for cannabis, the Judicial Branch does not have sufficient information as to the number of cases will be in this status as of the effective date to estimate a fiscal impact of this provision. The bill would result in fewer criminal cases going forward for what is decriminalized under this bill and new criminal cases that would be filed under the penalty provisions in the bill.

Current law (RSA 106-L:10), provides that every court shall levy a penalty assessment of $2 or 24 percent, whichever is greater, on each fine or penalty imposed by the court for certain criminal offenses. Penalty assessments collected are divided 66.67 percent to the general fund, 16.67 percent to the Victims' Assistance Fund, and 16.67 percent to the Judicial Branch Information Technology Fund. The Judicial Branch is unable to determine the change in penalty assessments collected if the bill passes.

The bill requires the Judicial Branch shall produce and publish a report that includes the number of cases dismissed pursuant to RSA 651:5-e. Said report shall be issued no later than 6 months after the effective date of the bill and again 12 months later. There will be additional costs to the Branch to produce the reports. The cost is indeterminable and will depend on the number of cases dismissed.

Many offenses are prosecuted by local and county prosecutors. When the Department of Justice has investigative and prosecutorial responsibility or is involved in an appeal, the Department may be able to absorb the cost within its existing budget. However, if the Department needs to prosecute significantly fewer cases or handle fewer appeals, then costs will decrease by an indeterminable amount.

It is assumed that any fiscal impact would occur after FY 2023.

This bill does not establish or authorize new positions.

AGENCIES CONTACTED:

Departments of Corrections, Health and Human Services, Justice, New Hampshire Liquor Commission, Judicial Branch, Judicial Council, New Hampshire Municipal Association and New Hampshire Association of Counties

Amendments

Sen. Whitley, Dist 15
May 9, 2023
2023-1716s
07/08

Amendment to HB 639-FN-A

Amend RSA 318-F:1, IX as inserted by section 7 of the bill by replacing it with the following:

IX. "Cannabis testing facility" or "testing facility" means an entity licensed to test cannabis for potency and contaminants. All testing facilities shall be independent from cannabis cultivation facilities, manufacturing facilities, and retail stores.

Amend RSA 318-F:3 as inserted by section 7 of the bill by replacing it with the following:

318-F:3 Smoking or Vaping Cannabis in Public Prohibited; Penalty. No person shall smoke or vape cannabis in a public place where the smoking or vaporizing of tobacco products is prohibited. Any person who violates this section shall be guilty of a violation and may be fined not more than $50 for the first offense, and not more than $100 for a second, subsequent offense.

Amend RSA 318-F:7, I(o)(3) as inserted by section 7 of the bill by replacing it with the following:

(3) Establishing the maximum amount of THC that may be included in each cannabis product serving as 5 milligrams, except that the commission may change this amount through rulemaking;

Amend RSA 318-F as inserted by section 7 of the bill by inserting after section 23 the following new section:

318-F:24 Local Option.

I. Any town or city may allow the operation of cannabis establishments, as defined by RSA 318-F:1, VI, in the following manner:

(a) In a town, the question shall be placed on the warrant of an annual town meeting under the procedures set out in RSA 39:3, and shall be voted on a ballot. In a city, the legislative body may vote to place the question on the official ballot for any regular municipal election, or, in the alternative, shall place the question on the official ballot for any regular municipal election upon submission to the legislative body of a petition signed by 5 percent of the registered voters.

(b) The selectmen, aldermen, or city council shall hold a public hearing on the question at least 15 days, but not more than 30 days before the question is to be voted on. Notice of the

AMENDED
ADOPTED

hearing shall be posted in at least 2 public places in the municipality and published in a newspaper of general circulation at least 7 days before the hearing.

(c) The wording of the question shall be substantially as follows: "Shall we allow the operation of cannabis establishments within the town or city?"

II. If a majority of those voting on the question vote "Yes," cannabis establishments may be operated within the town or city.

III. If the question is not approved, the question may later be voted upon according to the provisions of paragraph I at the next annual town meeting or regular municipal election.

IV. A municipality that has voted to allow the operation of cannabis establishments may consider rescinding its action in the manner described in paragraph I of this section.

IV-a. An unincorporated place may allow the operation of cannabis establishments by majority vote of the county delegation, after a public hearing is held.

V. The commission shall maintain a list of municipalities where cannabis establishments is available.

UNAPPROVED

Committee Minutes

SENATE CALENDAR NOTICE
Judiciary

Sen Sharon Carson, Chair
Sen Bill Gannon, Vice Chair
Sen Daryl Abbas, Member
Sen Rebecca Whitley, Member
Sen Shannon Chandley, Member

Date: April 12, 2023

HEARINGS

Thursday	04/20/2023
(Day)	(Date)

Judiciary	State House 100	1:00 p.m.
(Name of Committee)	(Place)	(Time)

1:00 p.m.	**HB 360-FN**	an act legalizing cannabis for persons 21 years of age or older.
1:15 p.m.	**HB 431**	permitting qualifying patients and designated caregivers to cultivate cannabis for therapeutic use.
1:30 p.m.	**HB 610-FN**	expanding the definition of providers who can certify patients of the therapeutic cannabis program.
1:45 p.m.	**HB 473-FN**	relative to penalties for controlled drug violations.
2:00 p.m.	**HB 611-FN**	relative to eligibility criteria for the therapeutic cannabis program.
2:15 p.m.	**HB 639-FN-A**	relative to the legalization and regulation of cannabis and making appropriations therefor.

EXECUTIVE SESSION MAY FOLLOW

Sponsors:

HB 360-FN

Rep. Verville	Rep. Polozov	Rep. T. Lekas	Rep. Hynes

HB 431

Rep. W. Thomas	Rep. Toll	Rep. Phinney	Rep. Wheeler
Rep. Cannon			

HB 610-FN

Rep. Vail	Rep. W. Thomas	Rep. Cannon

HB 473-FN

Rep. Roy	Rep. Hynes	Rep. Yokela

HB 611-FN

Rep. Vail	Rep. W. Thomas	Rep. Seibert

HB 639-FN-A

Rep. Osborne	Rep. Layon	Rep. Wilhelm	Rep. C. McGuire
Rep. DiLorenzo	Rep. Berry	Rep. McWilliams	Rep. Wallace
Sen. Whitley	Sen. Murphy	Sen. Fenton	

Matthew Schelzi 271-3266

Sharon M. Carson
Chairman

Senate Judiciary Committee

Matthew Schelzi 271-3266

HB 639-FN-A, relative to the legalization and regulation of cannabis and making appropriations therefor.

Hearing Date: April 20, 2023

Time Opened: 3:20 p.m. **Time Closed:** 6:33 p.m.

Members of the Committee Present: Senators Carson, Whitley and Chandley

Members of the Committee Absent: Senators Gannon and Abbas

Bill Analysis: This bill establishes procedures for the legalization, regulation, and taxation of cannabis; the licensing and regulation of cannabis establishments; and makes appropriations therefor.

Sponsors:

Rep. Osborne	Rep. Layon	Rep. Wilhelm
Rep. C. McGuire	Rep. DiLorenzo	Rep. Berry
Rep. McWilliams	Rep. Wallace	Sen. Whitley
Sen. Murphy	Sen. Fenton	

Who supports the bill: In total, **161** individuals signed in, in support of HB 639-FN-A. The full sign in sheets are available upon request to the Legislative Aide, Matthew Schelzi.

Who opposes the bill: In total, **105** individuals signed in, in opposition to HB 639-FN-A. The full sign in sheets are available upon request to the Legislative Aide, Matthew Schelzi.

Who is neutral on the bill: The full sign in sheets are available upon request to the Legislative Aide, Matthew Schelzi.

Summary of testimony presented:

Representative Jason Osborne said that his position on cannabis has changed over time. He said this bill was a prime example of cooperation among a large consortium of individuals and interest groups. This bill would ensure these products are bought from a transparent and legal market where testing can be done. This market would help keep these products out of the hands of children, which is a goal shared among the stakeholders. Neighboring states have already legalized these products, so Rep. Osborne asked if this issue were as prevalent today. Whether this bill passed or not, he

said New Hampshire would be fine either way. If there were going to be carnage on highways or rampant underage use, New Hampshire would have already seen it. According to the American Medical Association, states that have legalized use have not seen increased use among those who are underage. Additionally, there has been a decrease in opioid use among patients who need pain medication. If cannabis can be used instead, they might not become as addicted. He said this bill passed out of the House with an overwhelming supermajority.

Representative Erica Layon said this bill was designed to undercut the illegal market. Currently, products can be purchased across state lines through the legal market, or they can be purchased on the illegal market. By moving this product into the legal marketplace, disputes between growers and sellers can be resolved through the legal system. Since these products are illegal, disputes can often lead to violence. By taxing at the wholesale level, New Hampshire will be able to undercut other states. In California, legal marijuana has been a problem because it is taxed at high levels; therefore, they have encouraged a robust black market. She said marijuana would be taxed at 12.5% at the wholesale level. This bill would provide space for low potency products. When dealing with the black market, individuals are not punished by potency; instead, they are punished by weight. Stores will have designated areas, and potency would be capped at 20 milligrams per dose. Rep. Layon reiterated this bill would move these products from the black market to the legal market thereby driving out bad actors.

Representative Laurie Sanborn, Chair of the House Ways and Means Committee, said they did not address the underlying policy of the bill. Instead, they focused on provisions related to tax, revenue, fees, and funding. She said the tax had originally been set at 15%, but it was reduced to 12.5%. This tax would be levied on the wholesale price of cannabis or finished products. 50% of net state revenues would go to the Education Trust Fund, 30% would go toward the unfunded retirement system liabilities, and the remaining 20% would be sent to entities overseen by DHHS. Funding for the Liquor Commission to implement the program would be set up. The Commission had requested $15 million dollars because they needed software to track products from seeds to finished product. The Commission would pay the amount back once they have generated enough revenue; however, Rep. Sanborn said that would take about two years. She said they removed the $100,000 application fee, which would have been levied on dual use certificate holders who produce medicinal and non-medicinal products.

Senator Chandley asked if they had discussed projected revenues when setting the percentages.

Rep. Sanborn said they did, but it was very hard to get. In other states, a main concern had been a quick rollout where there was more demand than products available. She said the Committee voted 16 to 4 on the bill. Those in opposition, however, found that the tax of 12.5% would provide enough revenue to administer the program as well as distribute revenue to other programs.

Representative Tim Cahill opposed this bill because it would be very detrimental to the people of the state. He said selling drugs to the citizens would not be a good thing.

Based on the numbers from Colorado, he said they have a failing system and a lot of problems.

Representative Matt Wilhelm said it was time for New Hampshire to join its neighbors in legalizing cannabis. Residents are still arrested for possession, which has placed communities at an economic and social disadvantage. Under existing law, racial disparities have negatively impacted the state. Despite proportionate levels of cannabis use across race, there is unequal enforcement against black individuals. Increased risk of arrest can lead to an increased likelihood of loss of financial aid eligibility, employment, housing, and child custody. Rep. Wilhelm said cannabis legalization would bring much needed job and labor growth to the state. In addition, it would allow more Granite Staters to become business owners and entrepreneurs. After administrative costs, 50% of revenue would go to the Education Trust Fund to help deliver local property tax relief; 30% to unfunded pension liability; 10% for a new substance misuse and recovery fund; 5% for children's behavioral health services; and 5% for public safety agencies to prevent impaired driving and drug overdose incidents. He urged the Committee to pass this bill.

Sen. Chandley said the duties and responsibilities that are performed by the Governor's Council on Alcohol and Drugs would be assigned to DHHS. Sen. Chandley asked if he was concerned that they were adding duplicative or unnecessary duties and responsibilities to DHHS.

Rep. Wilhelm said he would let others respond to this question; however, it was important to involve this agency, so they can deliver services and education to ensure products are safe and reasonable.

Sue Homola, former state representative, opposed this bill because its promises of reducing the black market, while increasing funding to education and other resources, were not true. In 2019, there were 278 black market cases in Colorado, which involved 7.5 tons of marijuana and 15,000 edibles that were destined to 29 states. In 2021, law enforcement disrupted an operation involving 21 individuals who were illegally sending money to China. After legalization in Colorado, emergency room visits due to marijuana use tripled, hospitalizations caused by marijuana exposure increased by 200%, and the number of calls to Poison Control increased by 400% between 2015 and 2016. From 2018 to 2019, the National Veterans Suicide Prevention Report indicated that suicides increased by 25%. From 2017 to 2019, daily marijuana use by high school students increased by 65%. In post-mortem toxicology reports, marijuana has been the number one drug found. Recently, the Governor of Colorado signed legislation to reduce the amount of THC in products sold. In 2021, the Vermont Medical Society advocated for the prohibition of advertising and promotion of products, and they asked for THC to be limited to 15%. In 2021, the University of Vermont found 9% of people became addicted to cannabis; however, the rate increased to 25% to 50% for those who start before they are 18 years old. Approximately 2.8% of 12 to 17 years old in Vermont have cannabis use disorder. She urged the Committee to do what is best for the children.

Hon. Senator Bob Clegg asked the Committee to amend the bill to have a sign placed in businesses stating that an individual would give up their rights to own or

possess a firearm or ammunition or have a commercial driver's license since marijuana is illegal at the federal level.

Senator Carson asked if they should also include CDL licensure.

Sen. Clegg said, according to the Department of Transportation, it would be for any commercial driver's license. If someone were driving on a federal license, a demand for testing could be made.

Pat Abrami, former state representative, opposed this bill. If the bill were passed, he suggested the Committee amend it from opt-out to opt-in similar to the lottery and Keno. Most states, or roughly 29, are still against marijuana being legalized. Rep. Abrami believed the black market would never totally disappear. Rep. Abrami said cannabis is harmful and it can lead to marijuana use disorder, brain cognitive development issues for adolescents, paranoia, and schizophrenia. In Washington, marijuana legalization and normalization has reversed decades of declining youth marijuana use. Rep. Abrami said THC potency can be between 15% to 30%, or at a concentration of 94% when it is vaporized. In contrast to other states, Rep. Abrami said the 12.5% revenue was a low tax rate. Based on his estimations, $26.5 million in revenue would be generated each year. The Commission has said it would cost about $4 million to run, and only $11.2 million would be left for the Education Trust Fund. This would equate to a 3% reduction in property tax rates. Approximately $6.7 million would go to the unfunded pensions; however, that has a total liability of $5.7 billion. Rep. Abrami estimated the maximum revenue would be $40.6 million. Under this estimation, the property tax reduction would be 6%. Rep. Abrami concluded that this bill would not solve the problems it purported to solve.

Harriet Cady, former state representative, said her son died after a marijuana user drove through a stop sign. She believed this bill underestimated the costs insurance companies must pay for people injured from drug-related accidents, and the expenses paid by members of the family.

Deb Naro, former state representative, read testimony from Dr. Joseph Ebner who is Chief Medical Officer of Speare Memorial Hospital. Currently, New Hampshire hospital emergency departments are experiencing an unprecedented number of patients who are in psychiatric crisis while awaiting transfers to underfunded acute mental hospital units. The percentage of youth usage of cannabis has been well above the national average in states that have legalized cannabis. Since 2016, Colorado has had the highest rate of consumption for marijuana, cocaine, alcohol, and opioids. The rate of cannabis use disorder has increased as the potency and availability of marijuana has increased. THC potency has increased from 3% to 90%, which has substantially increased the risk of cannabis induced psychosis. Cannabis use can also affect the developing brain in utero as well as in young teens. The American Psychiatry Association has called upon the federal government to organize more controlled studies of chronic cannabis use on long-term health. Existing evidence has supported that the legalization of cannabis will exacerbate the current mental health crisis.

Ms. Naro also read testimony from Dr. Andrew Seefeld who is Medical Director of the Emergency Department at Speare Memorial Hospital. In his opinion, legalization of cannabis would have a catastrophic impact on mental health as well as increase the risk, particularly among youth, of substance misuse. While mind altering substances can provide a brief escape, the long-term effects can be deadly. The prefrontal cortex is not developed until the age of 25; therefore, exposure to marijuana may lead to learning difficulties, reduced coordination, increased depression and anxiety, or the development of substance misuse disorders.

Ms. Naro lost two siblings from suicide, and as their marijuana use increased so did their health issues.

Representative Jonah Wheeler said that he is in neutral support of this bill. He said the decriminalization policy has had a harmful effect in communities across the state. Rep. Wheeler said it was the moment for New Hampshire to join the other states, which have recognized that criminalization has not been the best approach to dealing with addictions, mental health, or poverty.

Keen Meng Wong, Tax Policy Counsel at the Department of Revenue Administration, said DRA is neutral on HB 639-FN-A. He said that there are parts of HB 639-FN-A that were amended in the House that need further correction. Page 20, Lines 24 through 26, requires the Commissioner of DRA to deposit funds into an account but, as amended, DRA does not administer any tax. He said that language should be removed. Page 26, Line 34, makes reference to RSA 318-F:25 but should reference RSA 318-F:21, V (b)(1).

Senator Whitley asked if DRA had estimated potential revenues received through HB 639-FN-A.

Mr. Wong said DRA had initially prepared a fiscal note based on the 8.5% tax established in HB 639-FN-A as introduced, using the sales figures from Massachusetts and Maine. He said the 12.5% tax in HB 639-FN-A as amended is at the producer level rather than the point of sale.

Sen. Whitley asked if DRA could provide a revenue estimate based on HB 639-FN-A as amended.

Mr. Wong said the way the tax is assessed in HB 639-FN-A as amended is different than how the taxes are assessed in neighboring states, and the data available is based on the number of sales, not a producer-level analysis.

Dr. Omar Shah, adult and child psychiatrist and addiction medicine fellow at Boston Children's Hospital, is opposed to HB 639-FN-A. He said more than 90% of the patients he sees suffer from cannabis use disorder. THC is addictive and harmful to brain development, especially during youth. THC is illegal under federal law, so the federal government does not provide oversight or regulation for THC products like it does for alcohol or nicotine. He said THC content is increasing in products as legalization expands, to increase addiction and, in turn, sales. He said that although states are legalizing marijuana for adults over the age of 21, legalization increases access to marijuana overall, reduces perceived risk from marijuana, and increases

confusion for children and teenagers. He said parental substance use skews adolescents towards using substances.

Sen. Carson asked how many adolescents Dr. Shah sees in his practice that struggle with marijuana addiction.

Dr. Shah said he personally sees 20 to 30 adolescents on his workload, but there are seven or eight other providers who also work with him. He said there are more patients than they can serve.

Sen. Carson asked if it was harder for an adolescent to struggle with addiction than an adult.

Dr. Shah said adolescents become more impaired by drug use than adults, because of their brain development stage. He said teenagers are using cannabis at school in the bathrooms, creating a disciplinary problem for schools.

Dr. Oliver Salmon, is a pediatrician at Speare Memorial Hospital, opposed HB 639-FN-A. He said passing HB 639-FN-A will increase usage of marijuana for toddlers, children, and adolescents. He has seen multiple patients admitted to his hospital who were toddlers who had overdosed on THC products. Of those three or four patients, none needed to be intubated or admitted to the pediatric intensive care unit. 18% of patients who overdose on THC products are admitted to the pediatric ICU and 6% need intubation. He said teenagers may build coping strategies that involve THC that they maintain through their life. He said he would prefer to restrict marijuana in New Hampshire, such as products that could be perceived as candy or that have high concentration THC.

Sen. Carson said she had seen a lot of news stories about babies getting into their parents edibles and getting very ill. She asked if he had spoken to colleagues across the country who have seen that.

Dr. Salmon said he had not spoken personally to colleagues but had heard speeches that confirm those news stories.

Sen. Carson asked if there were long-term effects for children who overdose on THC products.

Dr. Salmon said it would depend on the individual case. He said there could be brain injuries depending on the severity of the case.

Dr. Amy Turncliff said there is a large body of evidence showing significant risk to youth in particular from THC, which increase with legalization and commercialization. She said New Hampshire would be negatively changed if HB 639-FN-A is passed. She said that data is nuanced but generally shows an increase in youth usage of marijuana and addiction, including opioids, and decreases in academic performance. She said THC can induce psychosis in an acute manner, and it is referenced on prescription inserts and frequently leads to schizophrenia. In Massachusetts, 1-in-4 high school students and 1-in-2 middle school students reported using marijuana and experiencing cannabis-induced hallucinations.

Sen. Carson asked about senior citizens and complications with their prescriptions and self-medication with marijuana products.

Dr. Turncliff said that was true and based on the metabolization of various drugs. She said people who make laws don't necessarily understand dosage and absorption.

Sen. Chandley asked if cannabis should be removed from the Schedule I drug list, in order to increase the scientific research opportunities.

Dr. Turncliff said she thought the research could be done without rescheduling. She said there have been tens of thousands of publications about cannabis, especially in the last ten years. Dr. Turncliff said that the endocannabinoid system is very important to brain development and THC can get ingrained through the "use it or lose it" reflex.

Aubree Adams, National Director of Every Brain Matters, shared her personal story of her son's battle with marijuana addiction and the devastating personal, health, and financial consequences it has had on their family. She said parents are unable to respond to their children's THC-induced psychosis and violence. She said products with flavors entice youth to consume THC products.

Captain William Bright, Investigative Services Bureau at the New Hampshire State Police, said that the fiscal note from the Department of Safety did not appear to carry forward with HB 639-FN-A as amended. He said the reasons listed in the original fiscal statement are the reasons that the State Police oppose HB 639-FN-A.

Sen. Carson referenced Cpt. Bright's written testimony on impact reports from Illinois and Colorado. She asked if he wanted to address those reports.

Cpt. Bright deferred to other speakers. He said there is no way to detect the amount of THC present, which will increase the number of impaired drivers and traffic fatalities.

Sen. Carson asked if a young person in New Hampshire, who dies from suicide, is routinely tested for THC.

Cpt. Bright deferred to other speakers.

Ann Hassel used to work at a marijuana dispensary in Massachusetts. She said commercialized, industrialized marijuana is dangerous and harmful to users. She said that the marijuana she knew before working in the industry is not the same as the commercialized marijuana products. She said she noticed the negative effects of high concentration THC on her coworkers and customers, as well as herself, but was unable to connect them to the usage. She said New Hampshire should be a healthy and safety oasis from the other New England states that have legalized marijuana.

Chief John Bryfonski, Chief of Police in Beford, said the New Hampshire Association of Chiefs of Police strongly opposes the legalization of marijuana. He said the criminal justice system is based on facts and evidence. The facts and evidence overwhelmingly support the basis that legalization of marijuana is bad for public safety, public health, and the common good. He said they expect there to be at least a

120% increase in marijuana-related fatalities in New Hampshire if HB 639-FN-A passed.

Sen. Carson asked if New Hampshire law enforcement agencies had started collecting information about the number of automobile accidents and other incidents caused by marijuana.

Chief Bryfonski said that whenever there is an accident, causing factors are listed. He said there were two recent fatalities in Bedford involving marijuana. In both cases, the operators of the vehicles had THC levels in their systems higher than the *per se* limits set in Nevada and Colorado. He said HB 639-FN-A does not set a *per se* limit. He said they were unable to bring charges for impairment solely based on the THC levels of the operators because of the lack of a *per se* limit.

Scott Gagnon, certified prevention specialist and member of Maine's Cannabis Advisory Commission, urged the Committee to oppose HB 639-FN-A. He said there are black market problems in California and New York. When cannabis is commercialized, it creates public health risks. He said no state has the capacity to meaningful address the risks presented to public health from commercialized cannabis; marginalized communities are significantly more effected by public health outcomes than people with resources. He said their efforts in Maine to establish public health benefits to offset the potential negative consequences did not work. He said the Cannabis Advisory Commission has only met twice since 2018. He said no funds have gone to communities in Maine to fund prevention programs. He said media campaigns do not move the needle on public health issues, especially for youth. He said Rep. Osborne said that the sky will not fall if HB 639-FN-A does not pass and urged the Committee to consider if it was the appropriate time to legalize marijuana.

Sen. Carson said the public health issue is not discussed. She said marijuana can be consumed in an edible or baked goods but many people smoke it as well. She said, like cigarettes, smoking marijuana is also bad for the body. She asked if there has been an increase in cancers among people who smoke marijuana.

Mr. Gagnon deferred to other speakers. He said the State of California does officially categorize cannabis smoke as a carcinogen. He also highlighted second- and third-hand smoke. Personally, he said that he cannot take his children to the ice cream shop without smelling marijuana since legalization in Maine. He said he believed that psychosis will be to cannabis, what lung cancer is to cigarettes.

Sen. Carson said she had a family member who travelled to Denver and was appalled by the pervasive smell of marijuana. She compared it to the pre-indoor smoking ban era. She said no one is addressing second-hand smoke. She asked if there needs to be a ban on smoking marijuana in public places.

Mr. Gagnon said it would be a serious challenge. He said legislators cannot control how the wind blows. He said Maine just passed a law allowing sale and consumption of marijuana at off-site locations, such as fairs.

Sen. Carson asked how Maine was dealing with people driving while impaired.

Mr. Gagnon said the Maine Chiefs of Police Association also opposed legalization. He said there is not a *per se* limit in Maine, for scientific reasons. He said there is an issue in Maine with trying to hire enough employees to handle the caseload. He compared it to fighting a forest fire with a garden hose.

Sen. Whitley asked if he was aware HB 639-FN-A contains a prohibition on smoking marijuana where there is already a prohibition on smoking cigarettes.

Mr. Gagnon said Maine has a similar provision, but enforcement is difficult.

Bob Dunn, Director of Public Policy for the Roman Catholic Diocese of Manchester, said HB 639-FN-A runs counter to the common good. He said there are four questions he hoped the Committee would consider: will the passage of this law protect youth and improve family life; will the passage of this law improve public health; will the passage of this law improve New Hampshire communities; and will the passage of this law make people better workers and strengthen the workforce. He said he believed the answers were no and any revenues that may be produced would be outweighed by the social and financial negatives.

Addison Englund, Ellie Englund, Arianne Lee, and MacKenzie Huckins, students at Plymouth Regional High School, urged the Committee to oppose HB 639-FN-A. They said there is a lot of access to alcohol and drugs in Plymouth because of Plymouth State University. They said that there should be investments in prevention and increased safeguards from drug use. They said there is a lot of misinformation on marijuana on social media that youth and teens are seeing. In 2017, New Hampshire was in the top ten states for marijuana usage between ages 12 and 17, and they said legalization would make it worse. They said children who saw advertisements for medical marijuana were more likely to use recreational marijuana. They said HB 639-FN-A is very dangerous and does not consider the health and safety of the public. They said adults should lead by example.

Kaylee McGlynn, a senior at Raymond High School, described her experience as a student when marijuana is prevalent. She said youth have been desensitized to marijuana due to adult complacency. She said youth marijuana usage is harming the future of society.

Kandyce Tucker, Program and Coalition Coordinator for Newfound Coalition for Youth, shared her personal story of her father's marijuana usage and its evolution into addiction to alcohol and other substances. She said there has been an increase of over 200% in the THC concentration of marijuana. She said marijuana use in youth is an indicator of opioid addiction in adulthood. She said people who self-medicate with marijuana are harming themselves in the long term.

Emily Shanahan, New Hampshire Certified Prevention Specialist and New Hampshire Coordinator for Smart Approaches to Marijuana, asked why the General Court was considering legalizing another addictive drug while there are multiple addiction crises ongoing. She referenced the U.S. Surgeon General's Youth Mental Health Advisory. She said legalizing cannabis contributes to that problem, as it is linked to depression, suicide, and addiction. She said age-based restrictions on legalization remind her of underage drinking.

Dan Allegretti supports HB 639-FN-A. He said drug abuse is a terrible thing, whether those drugs are legal or illegal. He said all of the opposition appeared to be predicated on the basis that continuing the prohibition on the acquisition of cannabis within New Hampshire would limit or deter consumption. He said cannabis comes across the border into New Hampshire every day from every border. He said tackling drug abuse needs to be done without looking to the past and assuming that what worked a decade ago is still working. He said it is time to regulate and tax cannabis. He referenced his written testimony and said states with prohibitions on marijuana do worse in many metrics than states with legalization. He said he disagreed with a previous speaker who indicated that people who say they support legalization in polls don't understand the problem and the General Court must protect them from themselves.

Jim Riddle, Policy Advisor to NHCAN, holds a USDA hemp producer license to produce seed. He said the USDA has determined that cannabis seed is hemp because it contains no THC. He said any material he grows that contains more than 0.3% THC must be burned, buried, or composted, which is destroying product with a potential market value. He said the stories shared previously proved that New Hampshire's prohibition was not working, and HB 639-FN-A provided an opportunity for New Hampshire to learn from other states and their legalization processes. As a farmer, he looks forward to being able to participate in a craft cannabis market, similar to the craft beer market. He said people in New Hampshire are sending their money out of state, proving a market for cannabis is available in New Hampshire. He referenced his written testimony for suggested amendments, including removing the reference to "seeds" as cannabis, because seeds are hemp.

Matt Simon, Prime ATC, said HB 639-FN-A is not perfect and many compromises have been made to establish a framework for a regulated market with a viable path forward for the therapeutic cannabis program. He said HB 639-FN-A is not a panacea but overwhelming majorities of New Hampshire citizens and state representatives support regulation. He said regulation will protect consumers with purity testing and safety from black markets. He noted that when the committee amendment from House Ways and Means was transferred to the HB 639-FN-A as amended by the House, the independent lab testing provision was dropped; that needs to be returned to the bill. He said he would like to see an amendment to HB 639-FN-A to do more to limit excessive market concentration. As originally drafted by the coalition of advocates, there was a limit of no more than three licenses being held by any single entity. He said there also was originally an independent advisory board that he would like to see re-added to the bill to provide oversight during the rulemaking process. Sales of marijuana just began in Vermont in October of 2022, so it is too soon to make judgement calls about the success or failures of Vermont's program. He said Vermont had one of the highest teen-use rates in the country when they passed their legalization bill and was one of the reasons why they introduced a regulated market. He said school bathrooms have always been the site of illicit behavior and he remembers very similar interactions raised by previous speakers in the 1990s.

Sen. Whitley asked if he had a perspective on the public health aspect of HB 639-FN-A.

Mr. Simon said that it is very early in the transition from black market to regulation. He said when he attempted to research cannabis in the 1990s, there was nothing online and very little in academic libraries. He said there are many sources online today that contradict the anti-marijuana propaganda of the 1980s. He said it is objectively less harmful than alcohol. He said the conversation should be about mitigating the negative consequence and asked if that was better done in a black market or by regulating the product and putting it behind a counter with public education. He said there are many law enforcement officials who support legalization and regulation as an alternative to jail cells and incarceration.

Celeste Clark, Executive Director of the Raymond Coalition for Youth, said that all the public health issues New Hampshire already has will only get worse. She noted that the health care system can not afford this as they are already overworked and understaffed.

Dr. Joe Hannon, former State Representative, helped draft HB 639-FN-A. He said prevention work is important but said it is also important to be honest. He said there have been significant negative effects to the prohibition of cannabis. Harm reduction is a public health strategy to reduce the harms of drug use, not promote drug use. He said people readily admit that it is very easy to access marijuana today when it is prohibited. He said youths purchase marijuana today on the illicit market; under HB 639-FN-A, marijuana sales would be restricted to adults in regulated settings. If drug use is occurring, efforts need to be made to minimize the harmful effects. He said legalization would reduce the risks of contamination and ensure potency standards. He said far more children end up in emergency departments for consuming laundry detergent pods than for consuming cannabis products. He said parents may be fearful of bringing their child to the emergency department today if they accidentally consume a cannabis product in a prohibited state.

Dr. Hannon said that despite the connotation of organized crime and gang violence, cannabis dispensaries in Massachusetts and Maine often exist near established chain pharmacies without engaging in armed turf wars. He said that does exist in the illicit market. He said legalization would eliminate the monopoly for illicit dealers and provide funding for public services. He said legalization can have a positive impact on decreasing opioid and prescription drug abuse, as well as promoting research opportunities. He compared the dosage of THC in dab products to pure grain alcohol, which is available in state liquor stores, and said that people understand the impacts of pure grain alcohol and do not go out to drink an entire bottle at a time. He said people do not receive information on safe adult usage in an unregulated market.

Elizabeth Brochce, Youth Service Director for Communities for Alcohol and Drug-Free Youth said that prohibition was first introduced for the 3-5% THC concentration that was prevalent in the 1960s and 1970s. She said it is not the same drug anymore and it should not be in New Hampshire. She said if someone uses cannabis and does not reach the desired level of impairment, they will take more, leading to a higher risk of addiction. She said alcohol and nicotine have addictive tendencies but can be used at certain levels without impairment effects; marijuana cannot. She said there are no safeguards to protect children in any legalization bill.

Lily Jackson, Campaign Strategist for ACLU-NH, said that New Hampshire's war on marijuana is a monumental waste of tax dollars. She also noted that opponents of marijuana legalization rely on fear-based rhetoric divorced from reality.

Ross Connolly, Northeast Regional State Director for Americans for Prosperity, said he supports HB 639-FN-A. He said New Hampshire is an island of prohibition and it is the reality that any adult in New Hampshire who wants to consume cannabis is already doing so by going to other states. He said elected officials in Massachusetts laugh about their impact on the cannabis market in New Hampshire. He said HB 639-FN-A is well balanced and it is time for New Hampshire to make its own decisions. He said the best way to ensure minors do not access cannabis is through regulation and control. He said there should be minimal barriers to entry into the industry and minimal taxation so there can be easy access with checks and balances from regulators.

Timothy Egan, a former State Representative and Chair of NHCAN, shared a personal story of his daughter's ability to get cannabis delivered to their rural home in 30 minutes. He said anyone can get anything from the black market. He said regulation and structure of the industry is important. HB 639-FN-A has broad, bipartisan support for regulation and focused on adults and adult use. He said every state that has legalized marijuana has seen youth use decrease. He said New Hampshire is losing $12-15 million per year in revenues from adults going to Maine, Massachusetts, and Vermont to purchase cannabis; Vermont is projected to make $15-20 million in their first year of sales, Maine made $58 million in 2022, and Massachusetts made over $3 billion in the last four years. NHCAN has projected that if New Hampshire mirrored Massachusetts' tax model there would be a net revenue of $35 million or $17 million based on Maine's tax model. This would ease the tax burden on property taxpayers. The American Medical Association said that marijuana helps ease opioid addiction.

Natch Greyes, New Hampshire Municipal Association, opposes HB 639-FN-A but proposed an amendment that would move the Association to neutral. He said their concerns are on Page 13, Lines 25 through 34. He said HB 639-FN-A as drafted comes from another state and allows for municipal regulation on a "time, place, and manner" restriction. He said "time, place, and manner" restrictions are typically First Amendment restrictions used about parades and such. He said it would be better, for New Hampshire's existing regulatory structure, to implement it under existing zoning regulations with a conditional use permit under the innovative land use provisions. The Liquor Commission would need to be aware of whatever local regulations may exist. He said the Association would prefer an opt-in, rather than opt-out, for allowing cannabis establishments mirroring what New Hampshire did with alcohol in 1964, and placing a question on every ballot in every municipality across the state in November of 2024, asking the voters if they want cannabis establishments in their municipality, followed up with a local town meeting question the following March with a question about the type of establishment.

Beth Scaer shared her personal story of interacting with parents who are under the influence of marijuana, as well as her personal story of family members who have

suffered various illnesses related to marijuana. She said one in every twenty daily marijuana smokers can expect to develop schizophrenia. She said legalization has harmed Massachusetts.

Former Senator Bob Giuda discussed his career with the FBI combating organized crime. He said legalization will increase costs for hospitalizations within the Medicaid population. He said there has been a 50% increase in traffic fatalities in Colorado. He said international organized crime explodes in states that legalize marijuana. He said passing HB 639-FN would constitute a violation of the United States Constitution and effectively be a nullification of federal law. In California, a large producer is pulling out of the market due to price compression caused by a lack of regulation on the market harming profits. He said the Governor of California attempted to use the National Guard to counter illegal growing. California is now attempting to export its excess marijuana to other states that have legalized marijuana, a violation of federal law. The former Governor of Colorado said that the revenue from marijuana taxation is a drop in the bucket. He said the Chinese cartels are promoting the infusion of poison into American society in order to bring America down. He said there is a difference between freedom and hedonism.

Representative Lilli Walsh said that the UNH poll cited did not survey the entire State, so the 70% support figure is inaccurate. She said her constituents are overwhelmingly opposed to HB 639-FN-A.

mjs
Date Hearing Report completed: April 25, 2023

Speakers

Senate Judiciary Committee
SIGN-IN SHEET

Date: Thursday April 20th, 2023 **Time:** 2:15 p.m.

HB 639-FN-A AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

Name/Representing *(please print neatly)*

	Support	Neutral	Oppose	Speaking?	Yes	No
Sen Regina Birdsell	☐	☐	☒		☐	☒
Former State Rep Pat Abrami	☐	☐	☑		☑	☐
Anne Hassel PT *	☐	☐	☑		☑	☐
Dan Allegretti	☑	☐	☐		☑	☐
Dr. Omar Shah *	☐	☐	☑		☑	☐
Kandyce Tucker	☐	☐	☒		☑	☐
Emily Shanahan	☐	☐	☑		☒	☐
Aubree Adams *	☐	☐	☒		☒	☐
Elli Englund	☐	☐	☒		☒	☐
Addi Englund	☐	☐	☒		☒	☐
Arianne Lee	☐	☐	☒		☒	☐
Mckenzie Huckins	☐	☐	☒		☒	☐
Denise Coolidge	☐	☐	☒		☐	☒
Rep Jason Osborne						

(2)

Senate Judiciary Committee
SIGN-IN SHEET

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HB 639-FN-A AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

Name/Representing *(please print neatly)*

	Support	Neutral	Oppose	Speaking?	Yes	No
Alexandria Ramos	☐	☐	☒		☐	☒
Jim Riddle	☒	☐	☐		☒	☐
Matt Simon	☑	☐	☐		☑	☐
Rep. Margaret Drye	☐	☐	☒		☐	☒
Amy Turncliff *	☐	☐	☒		☒	☐
Former State Rep. Deb Ward	☐	☐	☒		☒	☐
Chief John Bryfonski NH Assoc of Chiefs of Police	☐	☐	☒		☒	☐
William Bright NH State Police	☐	☐	☒		☒	☐
Bob Dunn Roman Catholic Diocese of Manchester	☐	☐	☒		☒	☐
Kaysea McGlynn RCFT	☐	☐	☒		☒	☐
Celeste Clark	☐	☐	☒		☒	☐
Scott Gagnon *	☐	☐	☒		☒	☐
John Reagan	☒	☐	☐		☐	☒

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Name/Representing *(please print neatly)*

Elizabeth Broche	Support ☐	Neutral ☐	Oppose ☑	Speaking?	Yes ☑	No ☐
Lily Jackson / ACLU-NH	Support ☒	Neutral ☐	Oppose ☐	Speaking?	Yes ☒	No ☐
Harriet E Cady	Support ☐	Neutral ☐	Oppose ☑	Speaking?	Yes ☑	No ☐
Joe Hannon	Support ☑	Neutral ☐	Oppose ☐	Speaking?	Yes ☑	No ☐
Richard VanWickler ACLU & LAW LEAP Enforcement	Support ☑	Neutral ☐	Oppose ☐	Speaking?	Yes ☑	No ☑
Stephanie Wolff	Support ☐	Neutral ☐	Oppose ☑	Speaking?	Yes ☐	No ☒
Kaithyn Acciardo	Support ☐	Neutral ☐	Oppose ☒	Speaking?	Yes ☐	No ☑
Ross Connolly AFP	Support ☒	Neutral ☐	Oppose ☐	Speaking?	Yes ☒	No ☐
OLIVER SAMSON, DO, FAAP	Support ☐	Neutral ☐	Oppose ☑	Speaking?	Yes ☒	No ☐
TIMOTHY T. EGAN - NHCANN	Support ☑	Neutral ☐	Oppose ☐	Speaking?	Yes ☑	No ☐
Elliot Axelman	Support ☑	Neutral ☐	Oppose ☐	Speaking?	Yes ☑	No ☐
Jared Sullivan / Grafton 02	Support ☑	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☑
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐

Senate Judiciary Committee
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HB 639-FN-A AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

Name/Representing *(please print neatly)*

Name/Representing	Support	Neutral	Oppose	Speaking?	Yes	No
Rep Tim Cahill	☐	☐	☑		☑	☐
Rep Erica Layon Cosponsor	☒	☐	☐		☒	☐
Keen Meng Wong, DRA	☐	☑	☐		☑	☐
Paula Minnehan NH Hosp. Assoc	☐	☐	☒		☐	☒
Hon Sue Homola	☐	☐	☒		☒	☐
Tom Pelosa New Futures	☐	☐	☒		☒	☐
Mitch Greyes NHMA	☐	☐	☒		☒	☐
Devyn Smith, DHHC	☐	☐	☒		☒	☐
Hon Bob Giuda Last	☐	☐	☒		☒	☐
Zephan Wood	☒	☐	☐		☒	☐
Laurie Sanborn Chair, House Ways & Means	☐	☐	☐		☒	☐
Brian Harlow	☐	☐	☑		☑	☐
	☐	☐	☐		☐	☐

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Senate Judiciary Committee
SIGN-IN SHEET

Date: Thursday April 20th, 2023 **Time:** 2:15 p.m.

HB 639-FN-A AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

Name/Representing *(please print neatly)*

Robert Clegg Both Sides	Support ☐	Neutral ☑	Oppose ☐	Speaking?	Yes ☑	No ☐
	Support ☐	Neutral ☐	Oppose ☒	Speaking?	Yes ☒	No ☐
Jason Osborne (introducing)	Support ☒	Neutral ☐	Oppose ☐	Speaking?	Yes ☒	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐

Senate Judiciary Committee
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HB 639-FN-A AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

Name/Representing *(please print neatly)*

Rep. Matt Wilhelm	Support ☒	Neutral ☐	Oppose ☐	Speaking?	Yes ☒	No ☐
Nathaniel Gurney NH Cannabis Party	Support ☑	Neutral ☐	Oppose ☐	Speaking?	Yes ☑	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐

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HB 639-FN-A AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

Name/Representing *(please print neatly)*

Rep. Yury Polozov Merrimack-10	Support ☑	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☑
Rep. Jonah Wheeler Hills. 33	Support ☑	Neutral ☐	Oppose ☐	Speaking?	Yes ☑	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐
	Support ☐	Neutral ☐	Oppose ☐	Speaking?	Yes ☐	No ☐

Senate Remote Testify

Judiciary Committee Testify List for Bill HB639 on 2023-04-20

Support: 143 Oppose: 69

Name	Title	Representing	Position
Johnston, Kiernan	A Member of the Public	Myself	Support
King, Jordan	A Member of the Public	Myself	Support
Smith, Deryn	A Member of the Public	Myself	Oppose
Bernitz, Steven	A Member of the Public	Myself	Support
Murphy, Kevin	A Member of the Public	Myself	Oppose
Grogan, Edward	A Member of the Public	Myself	Support
Sajeev, Narayan	A Member of the Public	Myself	Support
Burbank, JASON	A Member of the Public	Myself	Support
Lack, Richard	A Member of the Public	Myself	Support
Ouellette, Bruce	A Member of the Public	Myself	Support
Lewis, Cornell	A Member of the Public	Myself	Support
Caggiula, Brandon	A Member of the Public	Myself	Support
Fogarty, Margaret	A Lobbyist	American Friends Service Committee - NH Program	Support
Perusse, Kerri	A Member of the Public	Myself	Support
Scott, Stella	A Member of the Public	Myself	Oppose
Pugh, Barbara	A Member of the Public	Myself	Support
Coon, Kate	A Member of the Public	Myself	Support
Valladares, Rachel	A Member of the Public	Myself	Support
rabas, Jill	A Member of the Public	Myself	Support
alladares, Dany	A Member of the Public	Myself	Support
Morrison, Carol	A Member of the Public	Myself	Support
Morrison, William	A Member of the Public	Myself	Support
McAvinew, Dawn	A Member of the Public	Myself	Support
Hall, Mya	A Member of the Public	Myself	Support
Grossi, Anne	A Member of the Public	Myself	Support
Antonucci, Amy	A Member of the Public	Myself	Support
Casey, Caroline	A Member of the Public	Myself	Support
Podlipny, Ann	A Member of the Public	Myself	Support
Hackmann, Kent	A Member of the Public	Myself	Support
Casino, Joanne	A Member of the Public	Myself	Support
Wyatt, Timothy	A Member of the Public	Myself	Support
Keegan, John	A Member of the Public	Myself	Oppose
Lax, Jonathan	A Member of the Public	Myself	Support
Howland, Curtis	A Member of the Public	Myself	Support
Istel, Claudia	A Member of the Public	Myself	Support
Homer, Brian	A Member of the Public	Myself	Oppose
Cote, Lois	A Member of the Public	Myself	Neutral
Wade, Kimbly	A Member of the Public	Myself	Oppose
Moore, Susan	A Member of the Public	Myself	Support
Low, Emily	A Member of the Public	Myself	Support
Beaudoin, Jennifer	A Member of the Public	Myself	Support
Wood, Elizabeth	A Member of the Public	Myself	Support
Vingate, John	A Member of the Public	Myself	Support
Mathews, Janice	A Member of the Public	Myself	Oppose
Ferrara, Anna	A Member of the Public	Myself	Support
Bauer, Jenny	A Member of the Public	Myself	Support
Wood, Zephan	A Member of the Public	Myself	Support

Geary, Fiona	A Member of the Public	Myself	Support
HALLOCK, LINDA	A Member of the Public	Myself	Support
Pacheco, John	A Member of the Public	Myself	Support
campbell, karolyn	A Member of the Public	Myself	Support
Widger, Barbara	A Member of the Public	Myself	Suppor
Haynes, Emily	A Member of the Public	Myself	Support
Nerbonne, Elizabeth	A Member of the Public	Myself	Support
Benham, Linda	A Member of the Public	Myself	Support
Heller, Aaron	A Member of the Public	Myself	Support
Smith, Hayden	A Lobbyist	New Hampshire Youth Movement	Support
Zaenglein, Barbara	A Member of the Public	Myself	Oppose
Waris, Hannah	A Member of the Public	Myself	Support
Mannion, Tom	An Elected Official	Pelham	Support
Gardner, James	A Member of the Public	Myself	Support
Bousquin, Alison	A Member of the Public	Myself	Oppose
Nixon, Sherrill	A Member of the Public	Myself	Support
Robbins, Adriane	A Member of the Public	Myself	Support
Medeiros, Jesse	A Member of the Public	Myself	Support
Towle, Lynne	A Member of the Public	Myself	Oppose
Trousdale, Frances	A Member of the Public	Last Prisoner Project	Support
Mitchell, Scott	A Member of the Public	Myself	Oppose
Mott-Smith, Wiltrud	A Member of the Public	Myself	Support
Bacchus, Heather	A Member of the Public	Myself	Oppose
Chickering, Frances	A Member of the Public	Myself	Support
Ward, Ruth	An Elected Official	Myself	Oppose
Burroughs, Kristin	A Member of the Public	Myself	Support
Robbins, Annie	A Member of the Public	Myself	Support
McDonald, Mikko	A Member of the Public	Myself	Suppor
Smith, Andrea	A Member of the Public	Myself	Oppos
Ethier, Amanda	A Member of the Public	Myself	Support
Wikstrom, Kathleen	A Member of the Public	Myself	Support
Foss, Lily	A Member of the Public	Myself	Support
Larson, Ruth	A Member of the Public	Myself	Support
Shea, Corinne	A Member of the Public	Myself	Oppose
Keskinen, Vicki	A Member of the Public	Myself	Oppose
Hanson, Pete	A Member of the Public	Myself	Oppose
Giunta, Joseph	A Member of the Public	Myself	Oppose
Reardon, Maureen	A Member of the Public	Myself	Oppose
Sheppard, Kristen	A Member of the Public	Myself	Support
Newman, Arnold	A Member of the Public	Myself	Oppose
O'Brien, Lily	A Member of the Public	Myself	Support
Southworth, Benjamin	A Member of the Public	Myself	Support
MacLeod, Tyler	A Member of the Public	Myself	Support
Wheeler, Megan	A Member of the Public	Myself	Support
Dow, Lindsey	A Member of the Public	Myself	Oppose
Morin, Jennifer	A Member of the Public	Myself	Oppose
Feole, Sarah	A Member of the Public	Myself	Support
Schechter, Ari	A Member of the Public	Myself	Support
Geraci, Kimberly	A Member of the Public	Myself	Support
Tarbell, Valerie	A Member of the Public	Myself	Oppose
Woody, Savannah	A Member of the Public	Myself	Support
Provencher, Emily	A Member of the Public	Myself	Suppor
Ahern, Jr., Omer	An Elected Official	Myself	Oppose
George, Ruth	A Member of the Public	Myself	Support
Tynan, Amber	A Member of the Public	Myself	Support
Tynan, Christopher	A Member of the Public	Myself	Support

Stagnone, Leah	A Member of the Public	Myself	Support
Fouts, Kayley	A Member of the Public	Myself	Support
Allen, Mary Grace	A Member of the Public	Myself	Support
Manion, Alicia	A Member of the Public	Myself	Support
Allen, Sandra	A Member of the Public	Myself	Support
Moran, Jacob	A Member of the Public	Myself	Support
Lewis, Damon	A Member of the Public	Myself	Support
Caruana, Alyssa	A Member of the Public	Myself	Support
Fuentes, Sebastian	A Lobbyist	Myself	Support
Cilley Foisy, Michelle	A Member of the Public	Myself	Support
Watkins, Dan	A Member of the Public	Myself	Support
Kane, Erin	A Member of the Public	Myself	Support
Scott, Charlotte	A Member of the Public	Myself	Oppose
Robinson, Jonathan	A Member of the Public	Myself	Support
Leal, Brittany	A Member of the Public	Myself	Support
Mower, Elizabeth	A Member of the Public	Myself	Support
Shanahan, Emily	A Member of the Public	Myself	Oppose
Chooljian, Carrie	A Member of the Public	Myself	Oppose
Marquis, Crystal	A Member of the Public	Myself	Oppose
Ojendyk, Christine	A Member of the Public	Myself	Oppose
Ely, Alice	A Member of the Public	Myself	Oppose
Stone, Patricia	A Member of the Public	Myself	Oppose
Walsh, Lilli	An Elected Official	Myself	Oppose
Sandholm, Thomas	A Member of the Public	Myself	Support
AREY, DALE	A Member of the Public	Myself	Support
Jakows, Linds	A Member of the Public	Myself	Support
Perry, Adam	A Member of the Public	Myself	Support
Paltzman, Michael	A Member of the Public	Myself	Support
Therian, Elise	A Member of the Public	Myself	Support
Qualter, Patricia	A Member of the Public	Myself	Oppose
Kingsbury, Lisa	A Member of the Public	Myself	Support
Antman, Alyssa	A Member of the Public	Myself	Support
Prescott, Anna	A Member of the Public	Myself	Support
Lawton, Anthony	A Member of the Public	Myself	Support
Reynolds, Ashley	A Member of the Public	Myself	Support
Brown, Pam	A Member of the Public	Myself	Oppose
Vuich, Lisa	A Member of the Public	Myself	Support
Turner, Stephanie	A Member of the Public	Myself	Support
Aldenberg, Chief Allen	A Member of the Public	Myself	Oppose
Goldstein, David	A Member of the Public	Myself	Oppose
Ring, Jessica	A Member of the Public	Myself	Support
Croft, David	An Elected Official	Myself	Oppose
Smith, Theodore	A Member of the Public	Myself	Oppose
Fisher, Gary	A Member of the Public	Myself	Oppose
Morris, Chad	A Member of the Public	Myself	Oppose
Simonds, John	An Elected Official	Sullivan County Sheriff's Office	Oppose
Bilodeau, Michael	A Member of the Public	Myself	Oppose
Sullivan, Patrick	A Member of the Public	Myself	Oppose
Chase, Mark	A Member of the Public	Myself	Oppose
Bialosky, Elisabeth	A Lobbyist	Myself	Support
Winand, William	A Member of the Public	Myself	Oppose
Winand, Sierra	A Member of the Public	Myself	Oppose
Billingham, Carla	A Member of the Public	Myself	Support
Baiocchetti, Vinnie	A Member of the Public	Myself	Oppose
Hoebeke, Joseph	A Member of the Public	Hollis Police Department	Oppose
McGillen, Mike	A Member of the Public	Myself	Oppose

Wright, Cameryn	A Member of the Public	Myself	Support
Maloney, James	A Member of the Public	Myself	Oppose
Feole, George	A Member of the Public	Myself	Oppose
Hultgren, Lisa	A Member of the Public	Myself	Suppor
Neault, Jeremiah	An Elected Official	Myself	Opposi
Thomas, Maureen	A Member of the Public	Myself	Support
Kahn, Kevin	A Member of the Public	Myself	Support
Centner, Sue	A Member of the Public	Myself	Oppose
Gulla, Victoria	A Member of the Public	Myself	Oppose
Connolly, Shane	A Member of the Public	Myself	Support
Torosian, Peter	A Member of the Public	Myself	Oppose
Dionne, Tad	A Member of the Public	Myself	Oppose
Rigo-Reilly, Danielle	A Member of the Public	Myself	Support
Langlois, Douglas	A Member of the Public	Myself	Oppose
Shagoury, Andrew	A Member of the Public	Myself	Oppose
MonierI, Stephen	A Member of the Public	Myself	Oppose
Long, Cora	A Member of the Public	Myself	Oppose
Connelly, Christopher	A Member of the Public	Myself	Oppose
Morris, Gail	A Member of the Public	Myself	Oppose
Stacey, Cathy	A Member of the Public	Myself	Oppose
Langlois, Katrina	A Member of the Public	Myself	Oppose
MacLeod, Jason	A Member of the Public	Myself	Support
Torosian, Mary Beth	A Member of the Public	Myself	Oppose
Andelman, Robert	A Member of the Public	Myself	Oppose
Allen, Makenna	A Member of the Public	Myself	Support
Sargent, Tina	A Member of the Public	Myself	Support
Gildersleeve, Darlene	A Member of the Public	Myself	Support
Manzo, Richard	A Member of the Public	Myself	Suppor
Lui, Gabrielle	State Agency Staff	Myself	Suppor
Courchaine, Sarah	A Member of the Public	Myself	Support
Alleman, Bill	A Member of the Public	Myself	Support
Courchaine, Nicholas	A Member of the Public	Myself	Support
Berube, Maeghen	A Member of the Public	Myself	Support
Schuett, Dianne	An Elected Official	Myself and my constituents in Merr. Dist. 12	Oppose
Preston, Alicia	A Lobbyist	Myself	Support
Goudin, Mallory	A Member of the Public	Myself	Support
Martel, Charlotte	A Member of the Public	Myself	Support
Wampler, Kali	A Member of the Public	Myself	Support
Lui, Abby	A Member of the Public	Myself	Support
Ledoux, Cody	A Member of the Public	Myself	Support
Lui, Tammy	A Member of the Public	Myself	Support
Durkee, Peyton	A Member of the Public	Myself	Support
Loughlin, Brandee	A Member of the Public	Myself	Support
Pike, Jennifer	A Member of the Public	Myself	Support
Paradis, Crystal	A Member of the Public	Myself	Support
Brown, Kristen	A Member of the Public	Myself	Support
Richards, Paul	A Member of the Public	Myself	Support
Wampler, Travis	A Member of the Public	Myself	Support
Harriott-Gathright, Linda	An Elected Official	Myself	Support
Hunt, Janet	A Member of the Public	Myself	Oppose
Hayes, Ariel	A Member of the Public	Myself	Support
Figueroa, Nico	A Member of the Public	Myself	Suppor
Harlow, Brian	A Member of the Public	Myself	Oppose
boudman, roberta	A Member of the Public	Myself	Support

Testimony

Matthew Schelzi

From: Lois Cote <lcote06@outlook.com>
Sent: Monday, April 17, 2023 8:29 AM
To: Sharon Carson; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Subject: HB 639

Follow Up Flag: Follow up
Flag Status: Flagged

Caution! This message was sent from outside your organization.

Dear Committee Members,

I originally supported HB 639, but have changed my vote to neutral in order to request that you amend it, to conform to the guidelines from *New Futures* as outlined in their information and graphics:

Principles for Cannabis Policy & Regulation by New Futures

Assessing HB 639 by Alisha Proctor

These are strong principles that assure protection of children and public health.
These also firmly address principles of social justice and equity.

Please develop an amendment that reflects these principles. I have concluded that I cannot after all support HB 639 without it, and would need to OPPOSE it.

Thank you,
Lois Cote
Retired Child and Family Therapist
Manchester

Sent from Mail for Windows

Matthew Schelzi

From: Bryan Richardson <bryan-richardson@live.com>
Sent: Wednesday, April 19, 2023 1:47 AM
To: Sharon Carson; William Gannon; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Subject: Please ITL HB639

Follow Up Flag: Follow up
Flag Status: Completed

Caution! This message was sent from outside your organization.

Dear Senators Carson, Gannon, Chandley, Whitley, Abbas, and Schelzi;

I am to you as a parent who lost his son on March 10, 2010. Mark A. Richardson lost his life as a result of an accidental prescription opioid overdose. Mark began the slippery slope toward Substance Use Disorder with recreation use of marijuana. Recently, The NH Journal had an article pertaining to this issue. One of the bullet points in this article states, "Of teens ages 15–19 who died of suicide in 2018, marijuana was present in 37 percent of the cases where toxicology was performed." Please ITL HB639

Thank You

Bryan L Richardson Sr.
Alexandria

https://nhjournal.com/homola-legalized-recreational-marijuana-lessons-learned-from-other-states/

HOMOLA: Legalized Recreational Marijuana – Lessons Learned from Other States - NH Journal

New Hampshire - HOMOLA: Legalized Recreational Marijuana – Lessons Learned from Other States - NH Journal - Politics

nhjournal.com

Matthew Schelzi

From: Michael J. Cohen <michael@mjchealthsolutions.com>
Sent: Wednesday, April 19, 2023 4:13 PM
To: Sharon Carson; William Gannon; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Subject: Vote NO on HB 639

Caution! This message was sent from outside your organization.

Honorable Senators,
I am writing as a former Executive Director of NAMI NH, a member of New Futures, Policy Committee and an uncle who has experienced his nephew developing serious psychological problems from marijuana misuse.
Do the right thing, protect our youth and young adults from the hazards of commercialization of marijuana. To make cannabis so broadly available, will impact the health and development of our young population. Evidence shows that marijuana affects brain development and can exacerbate psychosis. Even though there is a vague statement that " Some of the tax revenue generated from legal cannabis sales will be used to support programs for education, prevention, treatment, and recovery related to the use of both legal and illegal drugs" in the proposed bill, the revenue generated from commercial sales is not worth the potential negative health impact on NH population. This is especially true because the bill does not put any potency limits on the active ingredient, THC, in the product, so that high potency products are more likely to lead to serious health and psychological problems. In addition, without key public health expertise in leadership roles on and regulatory body overseeing commercial sales, the legislation falls short of this necessary input into decisions about potency, distribution, access and safety.
Protect our public health. Vote NO on HB639. Thank you.

With respect,

Michael J. Cohen
4 Upper Flanders Rd.
Amherst NH 03031
603.496.1657
michael@mjchealthsolutions.com

Matthew Schelzi

From: jennifer.morin@comcast.net
Sent: Wednesday, April 19, 2023 9:56 PM
To: Sharon Carson; William Gannon; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Subject: Please Oppose SB629 Legalization of Marijuana in NH

Caution! This message was sent from outside your organization.

Dear Honorable Senate Committee Members,

As a Republican that values family and community, I've been fairly shocked at the Republican-led agenda to legalize and tax recreational marijuana. I could discuss what has happened in states and cities legalizing the use of weed, but I hope your due diligence has brought you the stark realities of increasing overall drug use and the associated sequelae of crime, overdose and childhood drug use in these states/cities. Scientific research clearly indicates that weed use (particularly in those under the age of 25) is associated psychosis including inducing the horrific, debilitating mental illness of schizophrenia. In nearly every case of drug addiction and life ruin that I read, the story begins with... "I started with weed...". More recently, I've been reading of the horrors of potentiated GMO weed causing full-on paranoia and suicide in beautiful young adult lives. All of what I have just mentioned is freely available in the public information and should absolutely be considered when making such serious and consequential decisions as legalizing marijuana. Today's weed is not the weed of yesteryear. It is potentiated, ultra-concentrated and adulterated. It is harmful to brains of all ages (particularly those 25 and under according to the most recent research.)

https://medicine.yale.edu/psychiatry/step/early-intervention-services/cannabis%20use%20and%20psychosis_380524_284_53825_v2.pdf

What I want to do to take time to discuss my family's introduction to the pervasive 420 culture. You see, we are a homeschooling family full of passions, interests and pursuits. We value family and community. We are involved in everything from beautiful community art to artisan French chocolate-making to building NH and Vt. Fire Engines as just a few of the things that we love. We fuel our bodies with healthy foods and live well-balanced lives. We have never turned to weed or other drugs to "cope" with life because we strive to create lives we enjoy and that bring us meaning every day.

When my homeschooled daughter was admitted to Keene State College with an academic scholarship for all four years (she wanted to go to a small NH college for both Graphic Design and Studio Art), we had no idea that weed would infiltrate every aspect of her college life. The door signs said Trap House and 420 Culture. Our daughter's dorm was known as "Hotbox Huntress". At any given time, pungent weed smoke filled the halls and adjoining rooms to such a degree that her own room was filled with weed smoke despite towels stuffed under the door, rags stuffed around pipes and air purifiers. Students smoke weed in the kitchen and common areas. They gathered 8 to a room and smoked while blocking door and window cracks. The Huntress snapchat was filled with comments about weed, weed coming in through the mailroom and the USPS, smoking weed and (easily) evading the campus safety. My daughter felt sick in her room and couldn't sleep. Her clothes reeked of weed. She reached out to her dorm supervisor and to campus safety and to community living... she was gaslit, ridiculed and called a liar. (I called and wrote emails, too.) Meanwhile, students smeared blood and feces on walls, tore off and crumbled up my daughter's door decorations on their way to the party room, were 3D printing actual guns and threatening violence, were stealing and breaking the possessions of others, disabled the entire smoke detector system in Huntress (!!!), vomited in sinks, trashed the kitchen, broke furniture and were generally loud, self-absorbed and inconsiderate in all ways. Students spoke of being addicted to the weed, unable to stop smoking. The misery, apathy, frenzy and destruction due to weed was visible to anyone looking. Of course this

pervasive weed culture bled into the classroom where students missed classes on the regular, reeked like weed, put forth almost no effort and generally made the classroom experience an extreme disappointment for a student wishing for academic integrity and rigor. This was just my daughter's first year experience and in her own dorm. What has happened this year and in other dorms is equally as shocking (or worse).

When discussing my daughter's experience with other parents, it seems that UNH, Plymouth and other NH Colleges are no different. Weed is pervasive and is altering the lives of NH's young adults in very serious ways.

If this is all happening now, I can't bring myself to imagine what legalizing weed will do. I truly fear the future of our great state with this drug clouding and altering the minds of our young people. Especially as we know that weed is often the gateway to even more serious, deadly and catastrophic drugs. Who will pay the ever increasing costs associated with mental illness, crime, apathy and decay?

Instead of legalizing weed, we should be working on strengthening families and communities. We should be encouraging passions and unique interests, especially in our young people. We should be modeling examples of well-balanced lives which do NOT require drugs - weed- to "get by". Legalizing weed will only have further serious and disastrous effects on our great State.

Please OPPOSE the legalization of recreational Marijuana use in New Hampshire. Please Oppose SB 629! Let's keep New Hampshire a State of Integrity- A State to be proud of!

Thank you kindly,

Dr. Jennifer R. Morin, B.S. (Cornell '93 with Honors and Distinction), D.V.M. Cornell '97

Meriden, New Hampshire
603-510-0410

LAST PRISONER PROJECT

Testimony from Gracie Johnson
State Policy Director
Last Prisoner Project

RE: Last Prisoner Project Calls on New Hampshire to Prioritize Criminal Justice Measures in HB 639 This Session

April 20, 2023

Dear Members of the Senate Judiciary Committee,

When a state legalizes adult-use cannabis, it is acknowledging that public interest has shifted on the criminalization of cannabis. The magnitude of this shifting perception is clear in the landscape of national legalization, as adult-use cannabis is now legal in 21 states. However, simply repealing the prohibition of cannabis is insufficient: millions of individuals across the U.S. still bear the lifelong burden of having a cannabis record, and tens of thousands are actively serving sentences for cannabis-related convictions.

While LPP was thrilled to see that HB 639 includes an avenue to vacate specific pending cannabis charges, we urge the legislature to go further. Upon analyzing HB 639, we understand that because prosecutors file cannabis-related charges under a wide variety of criminal statutes, identifying these cases and offering relief to these individuals is a difficult task. As a policy organization that specializes in providing technical assistance to offer relief for individuals harmed by past cannabis prohibition, we would like to offer our expertise in overcoming these identified obstacles. With this assistance in mind, we encourage the General Court of New Hampshire to ensure that HB 639 provides avenues for retroactive relief through state-initiated record clearance and resentencing.

State-initiated record clearance is an evidence-based policy that is key to redressing the lasting harm caused by cannabis criminal records and the significant and lingering barriers they impose to success. The negative effects of a criminal record on an individual's life are well-documented. Even minor offenses, such as nonviolent drug possession, carry lifelong consequences that can impact an individual's access to employment, housing, voting, financial stability, social assistance programs, and other opportunities, despite the debt that has already been paid to society. State-initiated record clearance is a process in which local and state agencies identify and clear eligible records, with no action or payment required by the record holder.

State-initiated resentencing is another cornerstone of comprehensive cannabis policy. The War on Drugs and the criminalization of cannabis-related activities have created a racially inequitable criminal legal system where people of color are nearly four times more likely than their white counterparts to be arrested for cannabis, despite similar consumption rates. Requiring New Hampshire courts to reconsider cannabis-related sentences upon prohibition's repeal provides a pathway to relief for individuals whose continued incarceration will no longer be in the interests of justice.

We urge the General Court of New Hampshire to ensure that HB 639 include a state-initiated record clearance process for cannabis records and guarantee the reconsideration of cannabis-related sentences in light of prohibition's repeal. It is essential that New Hampshire's legalization allows those trapped in jails, prisons, or on supervision for cannabis-related activities to have a fair pathway to relief.

About Last Prisoner Project

The Last Prisoner Project, 501(c)(3), is a national nonpartisan, nonprofit organization focused on the intersection of cannabis and criminal justice reform. Through policy campaigns, direct intervention, and advocacy, LPP's team of policy experts works to redress the past and continuing harms of unjust cannabis laws. We are committed to offering our technical expertise to ensure a successful and justice-informed pathway to cannabis legalization in New Hampshire.

Matthew Schelzi

From: cojend@tds.net
Sent: Thursday, April 20, 2023 10:57 AM
To: Becky Whitley; Sharon Carson; William Gannon; Shannon Chandley; Daryl Abbas; Matthew Schelzi
Subject: Vote "No" on HB 639

Dear Senators,

Below is a written follow-up to my remote Senate sign-in sheet for HB 639.

I am writing to ask you to vote against HB 639 as the bill does not fulfil many of the "Principles for Responsible Cannabis Policy and Regulation" advocated by New Futures (100 N Main St, Suite 400, Concord, NH 03301).

Also, a few years ago, I participated in a parent's education program at Massachusetts General Hospital (MGH) in Boston which addressed addiction treatment and counseling specifically for adolescents and young adults (up to age 26). I learned from the MGH health professionals that the brains of young adults are developing, and we do not understand the long-term effects of THC on them. This is especially true of the newer high concentrations of THC manufactured today. Moreover, in listening to other parents, I realized that many states are ill equipped to deal with the social and legal problems of large-scale commercialization of marijuana.

A substance being "legal" affects a young adult's way of thinking about it, particularly when it's socially acceptable. What what escapes many young adults is the understanding of its impact on brain development, and for some, its exacerbating effect on Serious Mental Illness (SMI). New Hampshire has a high rate of substance use among young adults many of whom are blind to the risks and harm. Therefore, it is critical that New Hampshire has a cannabis policy that protects its youth and educates the public.

Thank you for your consideration in voting "No" on HB 639.

Christine Ojendyk
Hopkinton, New Hampshire

Senate Judiciary Committee Testimony for HB639
Susan Homola
20 Apr 2023

Here are the promises made to each states' citizens when legalization is discussed:

- It will reduce black market activity for marijuana.
- It will help fund education, provide resources for drug prevention programs, and be a revenue generator.
- It will only be sold to adults over 21 and it will not be available to teens.

Fortunately, we now have 10 years of data to see how legalization promises are panning out. Here is a recap of what is happening in two states after they legalized marijuana:

Colorado
- Legalized marijuana has not reduced black market activity as expected.
- A 2020 CO law enforcement intelligence report stated there were 278 black market cases in 2019 involving the seizure of 7.5 tons of marijuana and over 15,000 marijuana edibles, destined for 29 U.S. states.
- In 2021 law enforcement disrupted an operation involved millions of dollars of illegal marijuana that involved twenty-one individuals funneling money to China.
- In addition to this transnational black market activity, other marijuana drug busts have included Mexican and Colombian cartels, as well as gangs from Cuba and Russia.
- It is estimated that for every $1 dollar of revenue generated in Colorado, it costs the state $4 in public health mitigation through an increased in substance abuse treatment, increased hospital visits, and increased policing costs.
- After CO legalized, emergency room visits due to Cannabis Use Disorder tripled over the following five years at the University of Colorado Hospital, which is one of Colorado's largest hospitals.
- Hospitalizations with marijuana exposures, diagnoses, or billing codes per 100,000 hospitalizations increased by approximately 200% after recreational legalization.
- The number of calls to poison control mentioning human marijuana exposure has increased over 400% from 2006 to 2015.
- The National Veteran Suicide Prevention Report indicates Colorado's veteran suicide rates are significantly higher than the national average, with an increase of 25% from 2018-2019 alone.
- In Colorado, where the legal age of marijuana use is 21 years or older, daily marijuana use by high school students increased by 65 percent between 2017 and 2019.
- Teen suicide rates have increased significantly over the past over the past few years, and marijuana is the number one drug found when toxicology is reported.
- Since legalization, marijuana use by children twelve years and older has risen 30%, which is 76% above the national average.
- Among college-age young adults (20–25), "past-month marijuana use" is 50% higher than the average, while past-month use for ages 12–17 is 43% higher.
- Colorado is also first in the nation for the highest percentage of adults who need drug treatment but aren't getting it.

- In 2021, approximately ten years after legalization, Colorado is starting to come to grips with this public health emergency and their legislature began steps to mitigate the negative effects from legalization with the passage of HB1317. This bill was a bipartisan effort, sponsored by the Democratic Speaker of the House and signed by the Democratic Governor. Colorado's new law limits marijuana THC concentrate purchases, adds more labeling requirements, and cracks down on underage medical cannabis relationships with physicians.
- Colorado legislators are moving forward with these risk mitigation measures after warnings by many health experts. One health profession, the Medical Director at the state's largest non-public psychiatric hospital, the Medical Center of Aurora, said the emerging epidemic of marijuana addiction "threatens to swallow the lives of a whole generation of Coloradans."

Vermont
- In 2020, two years after recreational legalization was passed into law, the Vermont Department of Health issued the following statement: "Marijuana use is a significant public health problem in Vermont, and it is getting worse."
- In 2021 the Vermont Medical Society released a resolution to advocate for a number of measures, to include:
1) A prohibition on the advertising, marketing and promotion of marijuana in the state of Vermont.
2) A requirement that all marijuana grown, produced or sold, whether through dispensaries or retail establishments, in the state be less than 15% THC cannabis as there is significant morbidity associated with its use, and as all research in the United States addressing any medical benefit of THC cannabis has been conducted on strains with potency less than or equal to 15% THC cannabis.
3) A requirement that all written and internet advertising of cannabis display up-to-date evidence-based warnings in large typeface which should include the following conditions: psychosis, impaired driving, addiction, suicide attempt, uncontrolled vomiting, and harm to fetus/nursing babies.

- In addition to the somber information provided by Vermont's health agencies and medical care professionals, it has also earn the sad distinction of being the state with the highest rates of youth marijuana use in the U.S.
- With regard to the relationship between marijuana and addiction, a 2021 University of Vermont presentation on childhood mental health cited the following:
- - Approximately 9% of people who use marijuana become dependent.
- - The rate increases to 1 in 6 (17%) of those who start before the age of 18.
- - The risk increases to between 25-50% in daily users.
- - It is likely that 30% of those who currently use marijuana may meet criteria for having a Cannabis Use Disorder
- - 2.8% of 12-17 year-olds have Cannabis Use Disorder.

In addition to the public health crisis happening in these states, which does not get discussed widely enough, legislatures across the country who grapple with this issue are regularly told by marijuana proponents that legalization is inevitable and the public wants it.

Across the U.S. we have 21 states who have legalized, and 29 who have not.

It is noteworthy to recognize that over the past two years there have been five states who have said no to this bad idea; North Dakota, South Dakota, Arkansas, Delaware, and Oklahoma. Oklahoma's recent decision was particularly interesting because voters decisively rejected a recreational legalization ballot measure by over 61% - despite the marijuana lobby outspending the pro-public health groups by millions of dollars.

On a side note – it is important to know that Oklahoma enacted very liberal laws regarding medical marijuana grow, and that state is currently the number one supplier for US black market product. I actually work for the Oklahoma State Department of Emergency Management in the hazard mitigation division, and I would be happy to provide additional detail if requested.

One thing we often hear cited in NH by legalization proponents is the one, tired UNH poll that supposedly reflects public support for legalization. It is important to consider that just as legislators have either been mal-educated on the public health downsides of legalization, or choose to ignore it, so has the public been deprived of an honest evaluation of this issue. At this point it is fair to say that legislators, on both sides of the political aisle, have already failed their constituents with their lack of objectivity and their ability to discuss this honestly with voters.

Consider this last solemn point: In order for the HB629 legalization plan to make a substantial profit off marijuana, our state is going to have to sell *a lot* of it to its citizens. Moving this drug into the hands of the highest number of consumers *is* the business plan, which is objectively shocking from a public health standpoint. And based off the data from other legalized states, it is clear that this becomes an issue for our youngest, most vulnerable citizens.

There used to be a time when adults and the government did what was best for their community's children, but with HB639 we are risking the health of our children to do what is best for the government.

I respectfully request that the members of the Senate hold the line on this important issue and vote down HB639.

Resource links:

Colorado:
https://legiscan.com/CO/bill/HB1317/2021

https://www.hudson.org/technology/the-colorado-experiment-legalized-marijuana-s-impact-in-colorado

https://www.cpr.org/2019/09/17/the-rate-of-teen-suicide-in-colorado-increased-by-58-percent-in-3-years-making-it-the-cause-of-1-in-5-adolescent-deaths/

Vermont:

https://www.med.uvm.edu/docs/echo_cannabis_2021_03_18/ahec-documents/echo_cannabis_2021_03_18.pdf?sfvrsn=1a9e98a6_2

https://ccb.vermont.gov/sites/ccb/files/2021-11/2021%20VMS%20Cannabis%20Resolution%20-%20As%20Passed%20by%20Board.pdf

https://www.healthvermont.gov/sites/default/files/documents/pdf/ADAP_Data_Brief_Marijuana.pdf

Additional Resources:

2020-2021 report compiled by the policy organization Smart Approaches to Marijuana which has been reviewed by many researchers, to include those from the University of Colorado in Denver, Harvard Medical School, Boston Children's Hospital, University of Connecticut, Yale University, and the University of Kansas.
https://learnaboutsam.org/wp-content/uploads/2020/12/2020-Impact-Report1.pdf

https://www.cnn.com/2022/06/27/health/marijuana-emergencies-hospitalization-study-wellness/index.html

Emergency Department Treatment of Cannabinoid Hyperemesis Syndrome: A Review:
https://pubmed.ncbi.nlm.nih.gov/28953512/

Cannabinoid Hyperemesis Syndrome Fatalities:
https://pubmed.ncbi.nlm.nih.gov/29768651/

Cannabinoid Hyperemesis Syndrome:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6690288/

The Colorado Experiment:
https://www.hudson.org/technology/the-colorado-experiment-legalized-marijuana-s-impact-in-colorado

https://www.nbcnews.com/health/health-news/er-visits-linked-marijuana-rose-colorado-hospital-after-legalization-study-n987161

All States
One issue that all states are dealing with following the legalization of medical and/or recreational marijuana law is the emergence of a relatively new syndrome, which is Cannabinoid Hyperemesis Syndrome, a severe vomiting condition associated with heavy cannabis use.
- A retrospective analysis of patients who were treated for this syndrome in a variety of locations across the US estimated the cost per patient to be just over $76,000 per hospital visit.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6339733/

2023 Cannabis Industry Projections

To: NH Committee on Ways & Means
Fr: (Hon.) Timothy Egan, NHCANN, Board of Advisors Chair
Dt: April 3, 2023
Re: Feedback on HB 639-A

Benchmark on Cannabis as of March 31, 2023:
The U.S. Cannabis Spot Index decreased 0.6% to $992 per pound.
https://www.cannabisbenchmarks.com/reports/u-s-cannabis-spot-index-march-17-2023/

Cannabis Benchmarks® US Spot Weighted Avg (Week Ending Mar 31, 2023)

	This Week	Last Week	Week on Week Δ
Total	$992	$998	-0.6%
Indoor	$1,251	$1,239	1.0%
Greenhouse	$671	$673	-0.4%
Outdoor	$472	$486	-2.8%

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April 2023 Implied Forward assessed up $15 to close at $1,015 per pound represents a premium of 2.3% relative to the current U.S. Spot Price of $992 Lb.

NH Cannabis Revenue Estimate

First full year Gross based on population:

CT $82M on 3.606M pop.

RI $80M on 1.096M pop.

ME $82M on 1.372M pop.

VT $16-24M on 645K pop.

Net Multiplier: 18-20% of Net revenue to a state based on estimated gross sales of cannabis. The average of New England States calculated on population & tax rate.

First full year Gross NH:

Based upon 1.38M population, NH DOR 2022 Projection of 8.5% Retail, but re-calculating at 12.5% Wholesale

If mirrored to Mass Sales, NH would Net $35.3M & If mirrored to Maine Sales, NH would Net $17.5M. So the average for first year is Net $25.4.

Therefore NH 2025-2027 estimates are:

New Hampshire
Period 2025
Revenue - First Year $ 25.4M
Tax - 12.5% on Wholesale/Final Form

NH Comparison - Est. State Net:
Gross $127M by 2025, translates to Net $25.4M
Gross $252M by 2026, translates to Net $50.4M *
Gross $428M by 2027, translates to Net $85.3M **
**(CT, ME, RI & VT all estimate Year 1 revenue doubling in Year 2)*
***(CT, ME, RI & VT all estimate Year 2 revenue up avg 70% in Year 3)*

New Markets

Connecticut
Period 2023
Revenue - First Year $82M
Tax - 20% on retail : 6.35% by sales, 3%dedicated to the city or town where the sale occurs, and a tax based on THC content that will cost approximately 10 to 15 percent of the sale price.
NH Comparison - Est. State Net:
Gross $82M by 2023, translates to Net $16.4M
Gross $174M by 2025, translates to Net $38.8M
https://www.mpp.org/states/connecticut/revenue-projections-for-connecticuts-sb-1201-equitable-cannabis-legalization/

Rhode Island
Period 2023
Revenue - First Year $80M
Tax - 13% on retail: 10% on retail by State, 10% on retail by City/Town
NH Comparison - Est. State Net:

Gross $80M by 2023, translates to Net $16M
Gross $300M by 2026, translates to Net $60M
https://mjbizdaily.com/rhode-island-set-to-launch-recreational-cannabis-market-thursday-dec-1/

Existing

Vermont
Period 2023
Revenue - First Year $16M now $24M (Updated 1/20/23)*
Tax - 14% on retail
NH Comparison - Est. State Net: Gross $225M by 2025, translates to Net $46M
https://mjbizdaily.com/vermont-recreational-cannabis-sales-total-2-6-million-in-first-month/#:~:text=According%20to%202022%20MJBiz%20Factbook,%2D%24145%20million%20by%202026

* https://legislature.vermont.gov/Documents/2024/WorkGroups/House%20Ways%20and%20Means/Cannabis%20Revenue/W~Ted%20Barnett~Cannabis%20Revenue%20Update~1-20-2023.pdf

Maine
Period 2022
Revenue - $158.9M sales & (Up from $82M in 2021)
Tax -10% on retail
NH Comparison - Est. State Net 2022: Gross $158.9 translates to Net $16M
https://www.centralmaine.com/2023/01/09/maines-adult-use-cannabis-sales-nearly-doubled-in-2022/#:~:text=The%20state's%20licensed%20adult%2Duse,%2416%20million%20in%20tax%20revenue

Mass
Period 2022
Revenue - $1.4B
Tax - A 10.75% excise tax is imposed on transfers of marijuana and marijuana products from a retailer. Massachusetts sales tax (6.25%) also applies to all sales of cannabis and cannabis-infused products. A city or town may impose a tax of up to 3% of marijuana sales in its locality.
https://greengrowthcpas.com/wholesale-cannabis-flower-price-q1-2022/#:~:text=Massachusetts%20Market,pound%20in%20the%20current%20quarter

Matthew Schelzi

From: jennifer.morin@comcast.net
Sent: Thursday, April 20, 2023 11:13 AM
To: Sharon Carson; William Gannon; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Subject: Please Oppose HB639 Legalization of Marijuana in NH

Caution! This message was sent from outside your organization.

Dear Honorable Senate Committee Members,

As a Republican that values family and community, I've been fairly shocked at the Republican-led agenda to legalize and tax recreational marijuana. I could discuss what has happened in states and cities legalizing the use of weed, but I hope your due diligence has brought you the stark realities of increasing overall drug use and the associated sequelae of crime, overdose and childhood drug use in these states/cities. Scientific research clearly indicates that weed use (particularly in those under the age of 25) is associated psychosis including inducing the horrific, debilitating mental illness of schizophrenia. In nearly every case of drug addiction and life ruin that I read, the story begins with... "I started with weed...". More recently, I've been reading of the horrors of potentiated GMO weed causing full-on paranoia and suicide in beautiful young adult lives. All of what I have just mentioned is freely available in the public information and should absolutely be considered when making such serious and consequential decisions as legalizing marijuana. Today's weed is not the weed of yesteryear. It is potentiated, ultra-concentrated and adulterated. It is harmful to brains of all ages (particularly those 25 and under according to the most recent research.)

https://medicine.yale.edu/psychiatry/step/early-intervention-services/cannabis%20use%20and%20psychosis_380524_284_53825_v2.pdf

What I want to do to take time to discuss my family's introduction to the pervasive 420 culture. You see, we are a homeschooling family full of passions, interests and pursuits. We value family and community. We are involved in everything from beautiful community art to artisan French chocolate-making to building NH and Vt. Fire Engines as just a few of the things that we love. We fuel our bodies with healthy foods and live well-balanced lives. We have never turned to weed or other drugs to "cope" with life because we strive to create lives we enjoy and that bring us meaning every day.

When my homeschooled daughter was admitted to Keene State College with an academic scholarship for all four years (she wanted to go to a small NH college for both Graphic Design and Studio Art), we had no idea that weed would infiltrate every aspect of her college life. The door signs said Trap House and 420 Culture. Our daughter's dorm was known as "Hotbox Huntress". At any given time, pungent weed smoke filled the halls and adjoining rooms to such a degree that her own room was filled with weed smoke despite towels stuffed under the door, rags stuffed around pipes and air purifiers. Students smoke weed in the kitchen and common areas. They gathered 8 to a room and smoked while blocking door and window cracks. The Huntress snapchat was filled with comments about weed, weed coming in through the mailroom and the USPS, smoking weed and (easily) evading the campus safety. My daughter felt sick in her room and couldn't sleep. Her clothes reeked of weed She reached out to her dorm supervisor and to campus safety and to community living... she was gaslit, ridiculed and called a liar. (I called and wrote emails, too.) Meanwhile, students smeared blood and feces on walls, tore off and crumbled up my daughter's door decorations on their way to the party room, were 3D printing actual guns and threatening violence, were stealing and breaking the possessions of others, disabled the entire smoke detector system in Huntress (!!!), vomited in sinks, trashed the kitchen, broke furniture and were generally loud, self-absorbed and inconsiderate in all ways. Students spoke of being addicted to the weed, unable to stop smoking. The misery, apathy, frenzy and destruction due to weed was visible to anyone looking. Of course this

pervasive weed culture bled into the classroom where students missed classes on the regular, reeked like weed, put forth almost no effort and generally made the classroom experience an extreme disappointment for a student wishing for academic integrity and rigor. This was just my daughter's first year experience and in her own dorm. What has happened this year and in other dorms is equally as shocking (or worse).

When discussing my daughter's experience with other parents, it seems that UNH, Plymouth and other NH Colleges are no different. Weed is pervasive and is altering the lives of NH's young adults in very serious ways.

If this is all happening now, I can't bring myself to imagine what legalizing weed will do. I truly fear the future of our great state with this drug clouding and altering the minds of our young people. Especially as we know that weed is often the gateway to even more serious, deadly and catastrophic drugs. Who will pay the ever increasing costs associated with mental illness, crime, apathy and decay?

Instead of legalizing weed, we should be working on strengthening families and communities. We should be encouraging passions and unique interests, especially in our young people. We should be modeling examples of well-balanced lives which do NOT require drugs - weed- to "get by". Legalizing weed will only have further serious and disastrous effects on our great State.

Please OPPOSE the legalization of recreational Marijuana use in New Hampshire. Please Oppose HB 639! Let's keep New Hampshire a State of Integrity- A State to be proud of!

Thank you kindly,

Dr. Jennifer R. Morin, BS. (Cornell '93 with Honors and Distinction), D.V.M. Cornell '97

Meriden, New Hampshire
603-510-0410

Matthew Schelzi

From: Jonathan Lax <jonathanlaxa2@gmail.com>
Sent: Thursday, April 20, 2023 3:23 PM
To: Sharon Carson; William Gannon; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Cc: Donna Soucy; Lou D'Allesandro
Subject: SB639

Follow Up Flag: Follow up
Flag Status: Flagged

Caution! This message was sent from outside your organization.

I am writing in support of SB639.
I urge you to recommend passage of and ultimately to vote in favor of SB639.
Enough is enough. New Hampshire is an outlier among its neighbors and has already lost millions of dollars of tax revenue to our neighbors who have taken the reasonable step of legalizing recreational cannabis.

I grew up in a town where cannabis was initially decriminalized in 1968, Ann Arbor, MI. The sky did not fall as many predicted it would. Ann Arbor is routinely listed as one of the best cities to live and raise a family anywhere in the country. Nearly fifty years later Michigan legalized recreational cannabis. The tax revenues that creates, both from the tax on the sale of cannabis, and through business taxes on the numerous entrepreneurial businesses the cannabis ndustry has spawned are immense.

Whenever I hear somebody in New Hampshire complaining about the lack of state funding for any project or initiative, or the need for budget cuts to important state programs, I am embarrassed. It is nonsensical for the Live Free or Die State to continue consciously choosing to forgo what has proven to be a significant source of tax revenue in every state where recreational cannabis has been legalized.

Law enforcement's objections to expanded access to cannabis are based on decades old and largely debunked questionable social science research and are largely remnants of the misguided (and failed) war on drugs.

We have serious issues in this state related to drug addiction and mental health, and a lack of resources to address those issues. Legalizing recreational cannabis will not make those problems worse, will likely help many who are trying to deal with their addiction to much more dangerous and deadly substances, and will generate revenue that can be used for drug education, drug use prevention, and vital recovery services.

I appreciate your consideration.

-Jonathan Lax, Concord, NH

NHMA
NEW HAMPSHIRE MUNICIPAL ASSOCIATION
EST. 1941

April 20, 2023

Senator Carson
Senate Judiciary Committee
State House
Concord, New Hampshire

Via Electronic Mail Only

Re: HB 639, legalization and sale of cannabis

Dear Senator Carson and Members of the Judiciary Committee:

I write to express the New Hampshire Municipal Association's position on HB 639 and offer an amendment which would satisfy our concerns with the portion of this legislation relative to municipal regulation. While NHMA has no position on the legalization of cannabis, we do have a detailed policy position adopted by our members during our September 2022 legislative policy conference on the sale of cannabis. (A copy of that policy position also follows this letter.) The proposed amendment, which is attached to this letter, would seek to replace Lines 25-34 on Page 13 of the bill as amended. Those lines consist of the first two sections of newly created RSA 318-F:11 with language that clarifies municipal authority and more closely aligns with our member-adopted policy position.

While we applaud the House for inclusion of language allowing municipalities to enact ordinances relative to cannabis establishments, we wish to note a potential technical issue that our amendment would address. A portion of the current language allows for "time, place, and manner" restrictions. These types of restrictions are traditionally used in the context of the First Amendment and regulations related to gatherings such as parades, not particular land uses. As the thing to be regulated is a particular use of land, we believe that shifting the regulatory framework to the existing land use statutes would be more appropriate. In reviewing our policy and the language of HB 639, we believe that local adoption of an innovative land use control, *i.e.* a conditional use permit, pursuant to existing RSA 674:21 is the best option. This would allow the town meeting to determine what, if any, conditions are appropriate for local regulation of cannabis establishments and empower the local land use board to review applications to ensure conformity with the wishes of the local voters.

NHMA recognizes the need for both those seeking to build cannabis establishments and the state regulatory body, *i.e.* the liquor commission or its successor agency, to know what, if any local regulations exist prior to beginning the process of investigating whether a cannabis establishment is

appropriate for a particular location. Therefore, we are proposing a two-step process: (1) a vote at the next general election which would determine what municipalities would allow a cannabis establishment nearly identical to the November 1964 vote on liquor, and (2) an implementation period that gives those municipalities that have voted to allow cannabis establishments time to consider what, if any, local regulations their voters would like to see included in their zoning ordinances. The implementation period we propose would see cannabis establishments may start applying for approval on or after July 1, 2025. This would give municipalities sufficient time – no matter their form of government – to follow the existing zoning ordinance amendment laws to create and consider a conditional use permit for cannabis establishments at their legislative body meeting following the November 2024 vote. Failure to pass a local ordinance in any community that voted to allow cannabis establishments would result in only those regulations at the local level for other commercial establishments, and whatever state regulatory rules that may be adopted pursuant to RSA 541-A.

Although the proposed timeline may appear long for those favoring legalization and retail sale of cannabis, we expect that it will take approximately a year for the state agency to formulate and propose rules relative to cannabis establishments and additional time to setup and prepare its own regulatory processes, including the hiring of new personnel. At the same time, those wishing to create cannabis establishments would need to begin the process of a market analysis, secure product, and take the steps necessary to ensure the success of their business. As such, if this bill were to pass the legislature and be signed by the governor, we would anticipate that the timeline would not be an undue burden on the legalization and sale of cannabis.

We also wanted to make the committee aware that we did not propose this amendment in the House, but we did provide an advance copy of our proposal to the leadership of both parties in the House and have not received any negative or positive feedback.

Thank you for your consideration and we look forward to working with you on this legislation.

Sincerely,

Natch Greyes

Natch Greyes
Government Affairs Counsel

Current Legislation Language

I. A municipality may enact an ordinance prohibiting or limiting the number and type of cannabis establishments that may be permitted within the municipality and regulating the time, place, and manner of operation of a cannabis establishment, which is permitted within the municipality. A locality's prohibition on cannabis establishments may not prohibit transportation through the locality or deliveries within the locality by cannabis establishments located in other jurisdictions.

II. A municipality may enact an ordinance specifying the entity within the municipality that shall be responsible for reviewing applications submitted for a registration to operate a cannabis establishment within the municipality. The entity designated by the municipality shall be responsible for indicating whether the application is in compliance with municipal ordinances.

Proposed Amendment Language

I. The voters of any city or town shall vote on whether to allow cannabis establishments in the municipality at the biennial election held in November 2024. The wording of the question shall be substantially as follows: "Shall we allow the operation of cannabis establishments within this city or town?" If a majority of the qualified voters present and voting in a municipality signal their approval of the operation of cannabis establishments, then cannabis establishments may start applying for approval on or after July 1, 2025. The recount of any local option vote, the procedures for holding such a recount, the declaration of the results of such a recount and the procedure for an appeal from such a recount shall be as provided in RSA 660:13-15. A municipality's prohibition on cannabis establishments may not prohibit transportation through the municipality or deliveries within the municipality by cannabis establishments located in other jurisdictions.

II. In a municipality that voted to permit cannabis establishments, if the municipality has a zoning ordinance, it shall consider adoption of an innovative land use control pursuant to RSA 674:21, II specifying where a cannabis establishment will be a permitted use and further provide what, if any, conditions will be placed upon cannabis establishments. If a municipality has passed an innovative land use control relative to cannabis establishments, it shall notify the liquor commission within 90 days of passage. Municipalities without zoning ordinances or which have failed to pass an innovative land use control relative to cannabis establishments will be governed by the provisions of RSA 318-F and administrative rules relating to cannabis establishments enacted pursuant to RSA 541-A. No local ordinance may be less restrictive than the provisions of RSA 318-F or administrative rules enacted pursuant to RSA 541-A.

Proposed language based on an amalgamation of the statutes related to "dry" municipalities (RSA 175:7 & RSA 663) and Keno (RSA 284:51) along with existing bill language.

NHMA's Policy Position

NHMA opposes legislation that authorizes the sale of cannabis unless the following provisions are included:

- Local opt-in (not opt out). The legislation must state that the processing, manufacture, refinement or sale of cannabis products in any municipality shall only be permitted after the legislative body of that municipality has adopted the provisions of enabling state legislation permitting such activities ("opt-in," not "opt out").
- Funding. Legislation that legalizes the sale of cannabis must include provisions for adequate and sustained funding to municipalities to address the costs associated with legalization because municipalities will be the governmental entities that will have to directly deal with the impacts of legalization.
- Host Community Agreement. Any legislation allowing for retail establishments for the sale of cannabis or cannabis products shall include a requirement for a host community agreement with the municipality in which a marijuana establishment is located, which may include provisions such as a community impact fee; a limit on the percentage of sales of total gross receipts that are related to cannabis sales; security measures for premises; agreements to fund police details when necessary; for crowd or traffic control; and termination of business provisions.

Without these provisions, NHMA must oppose any legislation permitting the sale of cannabis.

April 20, 2023

The Honorable Sharon Carson, Chair
Senate Judiciary Committee
State House, Room 100
Concord, NH 03301

Re: New Futures Opposition to Cannabis Commercialization Legislation (HB 639)

Dear Senator Carson and Honorable Members of the Committee,

New Futures is a nonprofit, nonpartisan organization that advocates, educates and collaborates to improve the health and wellness of all New Hampshire residents through policy change. In this role, we work extensively with policy makers, stakeholders, and prevention partners to prevent and reduce alcohol and drug problems in our state.

At New Futures, we believe that it is imperative to get cannabis commercialization policy right from the start. Optimal policy for our state must utilize the best available scientific evidence to reduce public harm, limit youth and problematic use, and purposefully advance social justice and equity in the state. That's why we've created the Principles for Cannabis Policy & Regulation guide and we track how each bill aligns with the principles.
The principles include:

- **Protecting Children and Youth**
- **Promoting Social Justice and Opportunities for Equity**
- **Protecting Public and Population Health**
- **Ensuring Appropriate Funding from Cannabis Revenue Directed to Efforts to Reduce Harms**

Attached to our testimony today is a copy of New Futures principles along with a detailed side by side of each principle and how they measure to the House passed version of HB 639. The side by side also offers resolutions to meet those principles.

While there have been some improvements made to HB 639 on the House side to include some of New Futures principles, as you can see by the side by side there needs improvements in the areas of:

- Protecting Children and Youth- there is nothing in HB 639 which regulates THC potency limits in cannabis products. This policy is needed to reduce harm and addictions and the risk of dependency, psychosis, and other harmful effects.
- Promoting Social Justice and Opportunities for Equity-HB 639 lacks a process for annulment or expungement for past criminal convictions for nonviolent cannabis-related

crimes. The bill also does not include any licensure opportunities or economic benefits for communities most negatively impacted by the war on drugs.

- Protecting Public and Population Health-the legislation lacks public health and prevention representation on a regulatory and/or advisory board and defers the development of the program to a consultant hired by the NH Liquor Commission with limited opportunities for participation by industry, public health and safety and social justice experts.

New Futures opposes HB 639 because this bill fail to include New Futures principles required for responsible cannabis commercialization policy and regulation. New Futures would be happy to provide the committee with language to ensure all principles are included in these bills.

Sincerely,

Kathryn Frey

Kathryn (Kate) Frey
Vice President of Advocacy

Principles for Cannabis Policy & Regulation

If New Hampshire moves in the direction of legalizing recreational cannabis through a commercial model, it is imperative to get the policy right from the start. Optimal cannabis commercialization policy for our state must utilize the best available scientific evidence to reduce public harm, limit youth and problematic use, and purposefully advance social justice and equity in the state.

The following principles must be included in a commercial policy and regulatory framework.

Principle #1 Protect Children and Youth



- Limit the potency of THC in flower cannabis and cannabis products to reduce the risk of dependency, psychosis, and other harmful effects.
- Prohibit any products, packaging or marketing that is attractive to children or youth, such as cannabis-infused beverages, flavored products intended for inhalation, flavored wrappers and products that resemble candy.
- Require buffer zones between retail outlets and schools (including colleges), public libraries and other youth-serving facilities.

Principle #2 Promote Social Justice and Opportunities for Equity



- Expunge past criminal convictions for non-violent cannabis-related crimes.
- Make equity and social justice a priority in the cannabis industry. Create economic benefits for communities most negatively affected by the war on drugs and ensure representation on cannabis governing bodies.
- Prioritize equity in licensing applicants and hiring requirements (e.g. residents of communities impacted by high drug incarceration rates, people with past cannabis convictions).

Principle #3 Protect Public and Population Health



- From the start of the regulatory process, place public health authorities in leadership roles and widely limit industry presence on regulatory bodies.
- Require health warnings in stores and provide safer use information to consumers.
- Inform vulnerable groups of the risks of use, such as low birth weight when used during pregnancy, psychosis and schizophrenia and other mental health effects.
- Extend smoke-free air restrictions to consistently prohibit smoking and vaping cannabis indoors in workplaces, multi-unit housing and public outdoors spaces.

Principle #4 Ensure Appropriate Funding from Cannabis Revenue Directed to Efforts to Reduce Harms



- Apply tax revenue for substance misuse education, prevention, treatment and recovery and ensure an informed, adequately paid behavioral health workforce.
- Create mass media and social media campaigns from the start, before law is effective, to address (including, but not limited to);
  - Growing false perceptions of harmlessness and impact of use for youth.
  - Safe storage of cannabis and use around children.
  - Increased motor vehicle accidents.
  - Increased risk of psychosis and dependence.
  - Use during pregnancy and associated low birth weight.

newfutures

**Principles based on recommendations from the Public Health Institute's Getting It Right From The Start program.*

PRINCIPLES FOR RESPONSIBLE CANNABIS POLICY & REGULATION

ASSESSING HB 639

PRINCIPLE #1 PROTECTS CHILDREN AND YOUTH	Limits potency of THC to reduce risk of dependency, psychosis, among others. ✗	Prohibits any products, packaging or marketing that is attractive to youth. ✓	Requires buffer zones between retail outlets and other youth-serving facilities. ✓
PRINCIPLE #2 PROMOTES SOCIAL JUSTICE & EQUITY	Expunges past criminal convictions for non-violent cannabis-related crimes. ✗	Makes equity and social justice a priority in the cannabis industry. ✗	⚖
PRINCIPLE #3 PROTECTS PUBLIC AND POPULATION HEALTH	Places public health authorities in leadership roles and limits industry presence on regulatory bodies. ✗	Informs vulnerable groups of the risks of use, such as psychosis and schizophrenia and other mental health effects. ✓	Extends smoke-free air restrictions to prohibit smoking and vaping cannabis indoors. ✓
PRINCIPLE #4 ENSURES FUNDING FROM CANNABIS REVENUE TO HARM REDUCTION EFFORTS	Applies revenue for substance misuse education, prevention, treatment and recovery and a behavioral health workforce. +	Creates mass media and social media campaigns from the start, before the law is effective. ✓	

KEY:

- ✓ ***Included in the bill***
- ✗ ***Not included in the bill***
- \+ ***Partially in the bill but needs revisions***

newfutures

HB-639 FN Bill Hearing
Kaylee McGlynn Raymond Coalition for Youth

Thank you Senator President and everyone here for serving on the New Hampshire Senate. I am Kaylee McGlynn, a 16 year old senior at Raymond High School. I am here to offer a perspective that might have otherwise gone unexplored. Through the eyes of a highschool student in 2023. I park my car in the student parking lot and walk in, trying to ignore the overwhelming whiff of marijuana emanating from the cars in the next row over. I have told administrators before and nothing has been done, so now I just keep walking. Flag 1 the adult complacency regarding the use of substances has paved a path for our youth to be desensitized from the danger of this drug. This is a place of learning.

It is early Monday morning, I walk into my block 1 class. The girl I sit next to is stoned out of her mind, giggling to herself. She looks over to me, and slurred and incoherently says "It's fine! Hahahaha oh my god. I just had a little bit of a different breakfast, stole some of my mom's stuff". I look over nervously and try to make some sense out of what I just heard. Flag 2, kids and adults are not mature enough to understand the effects of marijuana, and are too overcome by the high it provides that it's "just another thing to do".

I wait until 9:30 to go use this bathroom, that's usually when all the girls clear out from their first hang out session. To my disappointment, they are still there. As I wash my hands, they are all silent and as I turn in the sink, one of them speaks "You know you better not tell right? I'll give you a hit". Flag 3, this isn't a sparse thing, it is a common and prominent issue. This story is not unique. She hands me a dab pen and I politely decline. "Whatever but you better not tell still". I turn off the water and look at her "Yeah sure, you're entitled to ruining your own life". And then I remember, she's not just ruining her own life, but these are my peers, this is my generation, the future of society. Flag 4, if this doesn't scare you what does?

I want to be able to walk through the student parking lot and smell nothing but cold New England air. I want our youth to walk into their block 1 class, and sit next to a conscious and coherent classmate. Our kids need to be able to use the bathroom without fear or judgment of tattling due to illicit and illegal activities on school grounds. When did the BATHROOM become synonymous with drug use? Sadly many of our peers have not received the crucial support from the adults in their lives. But they can with your help. Do you know what goes on in your local high school?

Thank you and I am open to any and all questions.

Testimony of Communities for Alcohol-and Drug-free Youth
Youth Advisory and Advocacy Council (YAAC)
HB 639 New Hampshire Senate

To Honorable Members of the New Hampshire Senate:

We are the **Youth Advisory and Advocacy Council (YAAC)** of Communities for Alcohol- and Drug Free-Youth (CADY) located in Plymouth, New Hampshire. The YAAC program encourages youth to educate communities, and our peers, on problems and solutions related to substance misuse.

We would like to thank you for your service to the state of New Hampshire and hope you will help us continue our work in youth alcohol and drug prevention. As youth advocates, we support a prevention-focused agenda and ask you to vote NO on HB 639.

We feel that actions speak louder than words and the New Hampshire State Legislature's past decisions to prevent commercialization of marijuana and potent THC products has demonstrated the commitment to promote healthy and safe lifestyles for all New Hampshire citizens. Your position helps limit *increased* access of marijuana, as well as the ever-growing pressure on youth to try marijuana and other dangerous drugs. We thank you for your commitment to protecting NH's children and public safety.

Commercializing recreational marijuana would send the message that it is harmless when research and data support that it is just the opposite. Beyond fact-based evidence, more than 70% of high school seniors do not view regular marijuana use as harmful (NIDA). Students in sixth through eighth grade who saw ads for medical marijuana were twice as likely as others to have used the drug or to say they intended to use in the future (Partnership for Drug-Free Kids). NH youth are already seeing a lot of misinformation on marijuana over social media and seeing it as a cool drug to try. NH is currently in the top ten states for marijuana use among 12–17-year-olds (2017, Youth Risk Behavior Survey). With NH youth use already being one of the highest in the country, legalizing recreational marijuana will only increase youth use, and add to the progression of addiction.

Adolescent substance use is America's number one public health problem. The Center of Substance Abuse and Addiction (CASA) states, "90% of Americans with a substance use disorder started smoking, drinking, or using other drugs before the age of eighteen." HB 639 does not consider the health and wellbeing of NH's youth. In fact, the bill does not have limits on commercialization of marijuana with no restriction on social media advertising, or other advertising, which we know from other legal substances (alcohol and tobacco/vaping products) take full advantage of targeting young people.

Marijuana use continues to advance, and social norms are changing; we know marijuana is a drug that has a very high abuse rate. THC harms developing brains, yet, due to misinformation and confusion, our peers struggle to understand the risks and perception of harm continues to decline. This is true for many adults as well; either they don't understand the harm this drug has on a developing brain, or they don't care. Marijuana use is becoming riskier with the higher THC levels, and different methods of use. Marijuana smoke contains more carcinogenic hydrocarbons than tobacco smoke and exposes users to the same health problems as tobacco smoke. HB 639 puts no limits on THC – this is extremely dangerous to the public health of NH, and NH's youth.

Our generation's potential is limitless, but youth today are struggling. We don't have clear information and messaging from adults who should be leading by example. We need sound policy and practice, and we must have clarity around healthy choices - not more confusion. Our peers are confused and continue to experiment with marijuana because they believe that it's harmless. Commercializing recreational marijuana won't make the drug any less harmful, but it will increase the number of younger kids wanting to try it and making easier than ever before to access.

Testimony of Communities for Alcohol-and Drug-free Youth

Youth Advisory and Advocacy Council (YAAC)

HB 639 New Hampshire Senate

We know representing our state is a serious and sometimes difficult responsibility, and we want to thank you again for your service. When you make decisions on legalizing recreational marijuana, please think about the future of New Hampshire residents, with special consideration given to children and youth. To create lasting and long-term change with NH's drug crisis, we must hold strong and refuse amnesty to any drug that leads to impairment and addiction. We ask you to invest in educating our state on the dangers of use and protecting the kids and the communities of NH and vote NO on HB639. Thank you for taking time out of your busy schedule to read our letter.

Sincerely,

The CADY Youth Advisory and Advocacy Council

DIOCESE OF MANCHESTER

April 20, 2023

Senator Sharon Carson, Chair
And Members of the Senate Judiciary Committee
State House
Concord NH 03301

Re: HB 639 (Legalization of Marijuana)

Dear Senator Carson and Members of the Committee:

As Director of the Office of Public Policy of the Roman Catholic Diocese of Manchester, and on behalf of Bishop Peter Libasci, I write to respectfully register our **opposition to HB 639**, which legalizes marijuana. (We take no position with respect to the sections of the bill that only concern the corporate form of alternative treatment centers.)

Over the years, the Diocese of Manchester has consistently opposed proposals to legalize the recreational use of marijuana because, in our view, the common good would be harmed by the passage of this type of legislation. We hope that you will look at this legislation in the light of that foundational principle, which as you know undergirds the body politic that was established by the constitution.

Our state continues to struggle with a substance misuse crisis that has cost the lives of thousands of people and devastated the lives and health of countless more of our neighbors. Catholic ministries around the state are seeing the effects of this first-hand. With that perspective in mind, we urge you not to pass a bill that would legalize yet another drug that potentially harms those who are most in need of our protection and which would be the cause of unnecessary financial costs to the State of New Hampshire, local governments, and New Hampshire families. The information for the HB 639 fiscal note as supplied by the Department of Safety and the NH Municipal Association (which according to the FN was based on the legalization experiences of Colorado, Illinois, and Washington State) includes some instructive examples concerning the types of problems that are likely to flow from the legalization of marijuana in this state.

153 ASH STREET, MANCHESTER, NH 03104 (603) 669-3100 FAX (603) 669-0377 WWW.CATHOLICNH.ORG

As you conduct your review of this legislation, we respectfully suggest that the following questions must be answered:

1. Will the passage of this law protect our youth and improve family life?
2. Will the passage of this law improve public health?
3. Will the passage of this law improve communities?
4. Will the passage of this law make people better workers and strengthen our business workforce?

In our view, the answer to all these questions is decidedly "no". We think that any revenue that might come to the State from the enactment of this sort of legislation is sure to be outweighed by the financial cost -and even more, the social cost – of the measure. Therefore, we respectfully urge you to recommend ITL on HB 639.

Thank you as always for your kind consideration of our views.

Very truly yours,

Robert E. Dunn, Jr., Esq.
Director, Office of Public Policy

Amy Turncliff, PhD
Neuroscientist & Public Health Advocate
Testimony Opposing HB639
April 20, 2023

Dear Chair Carson, Vice-Chair Gannon, and Members of the New Hampshire Senate Judiciary Committee,

Thank you for the opportunity to provide testimony, in opposition to HB639 – "AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor." My name is Amy Turncliff. I hold a PhD in neuroscience from the University of North Carolina at Chapel Hill and completed post-doctoral training with Dr. Bertha Madras at Harvard Medical School. My area of expertise is mental health and substance use disorders, with a focus on the impact of cannabis use and cannabis policy on adolescent and young adult behavioral health. Since 2010, I have used my knowledge and expertise to build coalitions and to advocate for policies that prioritize youth substance use prevention and behavioral health promotion at the local, regional, and state level. I have testified many times over the past 8 years, in my home state of Massachusetts, to educate policy makers on the well-established body of scientific literature showing serious risk of health harms from marijuana, specifically the main psychoactive component THC, and the worsening of those health harms caused by marijuana legalization and commercialization. As the New Hampshire legislature deliberates the legalization and commercialization of marijuana, New Hampshire's drug free communities like CADY and the Raymond Coalition for Youth have asked me to help inform your hearing as your neighbor to the south, where as you know, marijuana has been legal since November 2016. Protecting public health, especially the health and safety of New Hampshire's young people is not my only motivation for being here. I am a 4th generation property owner in NH, as I am now co-owner of a beautiful rustic cabin on Millen Pond in Washington, NH. A property that was bought by my great-grandparents in the 1940s. My children, 16, 14, and 11, are now the 5th generation to enjoy summers on tranquil Millen Pond. My heart is truly in NH, with the White Mountains being my family's favorite playground in all seasons, so much so, that my husband and I purchased a property in Waterville Valley, 5 years ago. So, this is not only professional, but is also very personal for me.

While I understand that many believe that legalization and regulation of cannabis will reduce cannabis-related harms of all kind, I can tell you that marijuana legalization and

commercialization comes with MANY unintended consequences, that range from merely annoying to significant health harms. Marijuana legalization changes the look and feel of states, including Massachusetts, in a negative way. Although public consumption is a civil offense, there is inevitably more public consumption and the smell of high THC weed (also known as "skunk") permeates, as marijuana use becomes more normalized with legalization and commercialization. More public health and safety harm, not less, is a consequence of marijuana legalization and commercialization in every state that has chosen to loosen marijuana policy. Based on my experience and expertise, I outline several concerns below.

Marijuana, specifically THC, has significant negative impacts for many users, including adults but particularly for adolescents and young adults whose brains are still maturing until the age of 25 or even 30yrs old. Adult behavior influences the behavior of children and adolescents; a recent study showed that maternal cannabis use during a child's lifetime is associated with earlier initiation of use by that child.[1] Based on public health and prevention science, we know that access and availability, perception of harm, perception of peer and parental disapproval, and social norms all contribute to youth decisions about substance use. It is well established in the scientific literature that adolescents and young adults who regularly use marijuana are at increased risk for addiction (to marijuana and other substances including opioids), serious mental health harms (e.g., cannabis-induced psychosis, schizophrenia, bipolar disorder, and suicidal thoughts and attempts), cannabinoid hyperemesis syndrome (CHS), negative impacts on cognition, and poor academic performance (including decreased student engagement, student success, and increased school failure at the high school and college level).[2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18] The high THC products, defined as greater than 10% THC, that are appealing to young people and make up the majority of the commercial market, pose significantly increased risks to physical and mental health.

It is now well accepted that THC can induce acute psychosis and is an independent risk factor for chronic psychotic disorders such as schizophrenia. This association meets Bradford Hill criteria for causation. Centuries of case-based evidence, and dozens of peer-reviewed scientific publications, show that THC can induce acute episodes of psychosis in a dose-dependent manner, and newer studies show that the conversion rate from cannabis-induced psychosis to

schizophrenia or bipolar disorder is higher than for any other drug-induced psychosis, at nearly 50%.[5] In human laboratory studies, concerning healthy adults being administered THC, it has been approximated that 35–50% will experience psychotic symptoms. Further, a recent analysis by leaders in the cannabis-psychosis field, found that if high-potency cannabis, defined as >10% THC, were no longer available, 50% of cases of first-episode psychosis could be prevented in Amsterdam.[6] Independent evidence comes from Portugal which has registered a steady increase in the rate of hospital admissions for psychotic disorders with comorbid cannabis use disorder (CUD).[7] This is consistent with a 2021 paper citing findings from Denmark that include: "The increase in [the incidence of] cannabis-induced psychosis follows both the increase in the level of THC in cannabis, and the increase in cannabis use. The change in diagnostic practice does not appear to explain the increase in incidence of cannabis-induced psychosis."[8] Both countries have seen a rise in the potency of available cannabis over the same period.

Recent student survey data collected in Massachusetts show that nearly 1 in 4 (23%) surveyed high school students, and nearly 1 in 2 (43%) surveyed middle school students, who report ever having used cannabis reported experiencing cannabis-induced hallucinations, at least "from time to time" (MGH CAM school-based student survey, 2022). Nearly half of students (45%) surveyed in Hampshire County (Western) Massachusetts who reported using cannabis said the cannabis they used originated from a licensed marijuana dispensary. Further, data from this same MA county, make the case that cannabis commercialization is tied to higher rates of youth use. It compares teen use rates in 2015 (pre-legalization) to those in subsequent years, after multiple retailers opened in some municipalities but not others and found that there was a 60% increase in high schoolers' past 30 day cannabis use in a town where multiple retailers opened. A Massachusetts epidemiologist recently said about these data that "These results are not unique to Hampshire County, MA. Systematic, published reviews of the scientific evidence to date show that adolescent cannabis use increases following legalization in several geographical jurisdictions…Commercialization increases availability of cannabis products, and the shifting norms and ease of access that results from retailer openings has a lasting influence on our youth and their decision-making regarding cannabis use."

Consistent with the science, in testimony to the MA Legislative Joint Committee on Cannabis Policy, a clinical psychologist affiliated with Boston Medical Center, Boston University, and Harvard Medical School said…"I see many patients who have developed psychosis after using high potency THC products. The average age that my patients begin using THC is 15, and the average age that they develop psychosis is 21. Earlier age of first use, frequent use, and higher THC concentration are well known risk factors for developing psychosis. While some of my patients are "lucky" in that they are able to stop using THC and eventually recover from their psychotic episode, most are not so lucky. For some, the psychosis does not go away even though they stop using marijuana (i.e., the changes in brain function are irreversible). For others, they are addicted to THC and cannot abstain from using, and thus cannot recover from their psychoses. Such histories are typical of a larger and larger proportion of our schizophrenia patients. A growing body of research demonstrates that these individuals are NOT necessarily people who would have developed schizophrenia without using marijuana"…she goes on to say… "I love my job, but I hope you never need to bring anyone in your family to my clinic because they have developed schizophrenia."

At a time when many educators, clinicians, parents, and communities are having conversations about meeting the complex social, emotional, and mental health needs of our nation's youth, it is important to think critically about legalizing another addictive drug that has been shown to have significant acute and lasting effects on the development of adolescent brains. With the mental health of New Hampshire's youth being a major public health concern, it is a high priority to consider the impact of marijuana legalization on the future well-being of youth and young adults. Indeed, a recent article in the Wall Street Journal was titled "Legal Weed Feeds the Teen Mental-Health Crisis". The science supports this statement. However, many who advocate for the legalization of marijuana indicate that a "regulated market" will reduce access and availability to youth. I can confidently say that this is not the case. Commercialization of marijuana brings more high THC products that are appealing to young people and increases the amount of product that can, and will, be diverted to youth and young adults.

I am sure that youth-focused stakeholders (parents and guardians, mothers, fathers, aunts, uncles, grandparents, foster parents, clinicians, educators, civic leaders, clergy members, and many

others) working hard to raise healthy children in New Hampshire communities, want fewer drugs with addiction potential and reduced risk of other behavioral health issues in their communities, not more. Where there is more marijuana commercialization, more people use the drug, and more youth use the drug.[16,17,18]

I have no doubt that legalizing and commercializing recreational marijuana in New Hampshire would have serious and deleterious unintended consequences that will negatively impact many young people in this beautiful state. Please don't be fooled by an industry that uses age-old tactics to hide the science that shows the very serious consequences of legalizing and commercializing today's high THC marijuana. Please oppose HB639.

Thank you for your time.
Sincerely,

Amy KJ Turncliff, PhD
Neuroscientist & Public Health Advocate
Cell: 617-784-9404

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Statement by - **Scott M. Gagnon, MPP, PS-C – Gray, Maine**
scott.m.gagnon@gmail.com
Member Representing Public Health, Maine Cannabis Advisory Commission

To
Members of the Senate Judiciary Committee

April 20th, 2023

Madam Chair and members of the senate judiciary committee. My name is Scott M. Gagnon, I am a Certified Prevention Specialist in Maine, and the member representing public health on Maine's Cannabis Advisory Commission, a seat I was appointed to by Maine's Speaker of the House in 2018. I have been in the field of substance use prevention for over 16 years and have been intimately involved in cannabis policy advocacy in Maine since 2013. I lead a coalition of public health, behavioral health, and healthcare professionals who opposed Maine's legalization ballot initiative in 2016, on the premise that the mass commercialization of cannabis would harm Maine's youth and communities. Sadly, these concerns have proven accurate as Maine has struggled with many issues since legalization.

I am here before you today at the request of New Hampshire's drug free communities, such as CADY and Raymond Coalition for Youth, to help inform this hearing about the public health and regulatory challenges faced in my state, to hopefully provide pause about the wisdom of proceeding with the legalization and mass commercialization of cannabis in New Hampshire.

One of the biggest pitfalls of cannabis legalization is the inability of states to regulate the industry sufficiently to prevent public health and public safety harms. Not one state in this country has been successful in this regard. States simply aren't equipped with the capacity, bandwidth, and I would add, expertise, to successfully avert negative public health outcomes.

Some examples from Maine.

One failure out of the gate was the Maine Cannabis Advisory Commission. It was established in Maine's law implementing adult-use legalization, as a vehicle to provide expert advice to the Maine legislature, and to the Maine Office of Cannabis Policy, as the rules and regulations were crafted, adopted, and implemented. This includes expertise from myself in the public health seat, along with a representative from Maine CDC's Substance Use Prevention unit. Since 2018, the Commission has met only twice, and these meetings were, at best, perfunctory. The result is our Commission has had no ability to weigh in on Maine's cannabis rules and regulations.

Another failure is the stewardship and utilization of Maine's Public Health and Safety Fund. This fund is fed by 12% of the tax revenues from adult-use cannabis in Maine. Half of this fund goes to law enforcement for training, the other half is intended to fund cannabis education and prevention initiatives, to prevent underage use, and high-risk use amongst of-age populations.

Instead of having this fund managed by the actual public health experts in Maine Center for Disease Control and Prevention, the purse strings for this fund are held by the Office of Cannabis Policy, which has no staff with any expertise in public health principles. The result, to date the only initiative being funded is a media campaign, while not one penny has gone into communities, to fund local-level prevention efforts. Prevention science is clear, media campaigns have limited impact on preventing underage use of substances, policies and programs at the local level have far more impact. This is a huge failure, and another example of how states simply cannot set themselves up to manage this properly.

There are many aspects of the commercial cannabis industry pose risk factors to young people, when it comes to underage substance use. These risk factors include[1]:

- Widespread availability of cannabis
- Greater cannabis outlet density
- More days and hours of cannabis sales
- Exposure to cannabis marketing
- Youth exposure to cannabis marketing on social media
- Products such as candy edibles that are attractive to youth

Unfortunately, when cannabis is legalized in a state, the floodgates for these items are opened, and the track record thus far, is that no state has been able to meaningfully constrain the industry from impacting kids and communities. Large states like California and New York fail in this regard, but also fail to reign in the black market, despite the promises of legalization proponents. Illegal cannabis operations flourish in both of these states. These issues prove that capacity to regulate is an issue for all states, large and small. Given this unavoidable truth, I would strongly encourage New Hampshire to not move forward with cannabis legalization, for the health and safety of your youth and communities.

[1] Source: SAMHSA Evidence-Based Resource Guide Series: Preventing Marijuana Use Among Youth

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Geographical variation in hospitalization for psychosis associated with cannabis use and cannabis legalization in the United States

Lauren V. Moran, MD, MPH[1,2,3,*], **Erica S. Tsang, MD, MPH**[2,4], **Dost Ongur, MD, PhD**[1,3], **John Hsu, MD, MBA**[5,6,7], **May Y. Choi, MD, MPH**[2,8]

[1]Division of Psychotic Disorders, McLean Hospital, Belmont, MA

[2]Harvard T.H. Chan School of Public Health, Boston MA

[3]Department of Psychiatry, Harvard Medical School, Boston, MA

[4]Division of Medical Oncology, BC Cancer and University of British Columbia, Vancouver, British Columbia, Canada

[5]Mongan Institute, Massachusetts General Hospital, Boston, MA

[6]Department of Medicine, Harvard Medical School, Boston, MA

[7]Department of Health Care Policy, Harvard Medical School, Boston, MA

[8]Division of Rheumatology, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada

Abstract

The 2017 National Inpatient Sample database was utilized to investigate the association between cannabis legalization in the United States and hospitalizations for psychosis associated with cannabis use. We compared the odds of hospital discharges for psychosis associated with cannabis use in adults between the Pacific census division (where most states legalized recreational cannabis use) and other divisions using multivariable logistic regression, adjusting for confounders. We calculated a score for each census division representing cannabis legality as the population-weighted sum of state scores: 1=illegal or cannabidiol/low potency cannabis; 2= medical marijuana; and 3=recreational and medical marijuana legalized. Pearson's correlation coefficients (*r*) quantified the relationship between scores and the proportion of hospitalizations

*Correspondence to: Lauren V. Moran, MD, MPH, McLean Hospital, 115 Mill Street, AB3S, Belmont MA, 02478, United States, lmoran4@partners.org.

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All authors edited and approved the final manuscript.

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with psychosis associated with cannabis. In 2017, there were an estimated 129,070 hospital discharges for psychosis associated with cannabis use. The Pacific census division had significantly higher odds of discharges than other divisions (adjusted odds ratio 1.55; 95% confidence interval 1.25 – 1.93). There was a significant correlation between the cannabis legality score and proportion of hospital discharges for psychosis associated with cannabis use (r=0.67, $p<0.05$). In conclusion, we observed a higher proportion of hospital discharges for psychosis associated with cannabis use in areas with more liberal cannabis legalization laws.

Keywords

cannabis; marijuana; legalization; psychosis; schizophrenia

1. INTRODUCTION

Cannabis is the most prevalent illicit substance in the United States (Substance Abuse and Mental Health Services Administration, 2018). As more states are legalizing cannabis for recreational and/or medical purposes in the US, the prevalence of cannabis use has increased. Among persons aged 18 years or older, the prevalence of current users in the past month increased from 6.0% in 2002 to 9.9% in 2017 (Center for Behavioral Health Statistics and Quality, 2018). Approximately 20–30% of individuals who use cannabis meet criteria for a cannabis use disorder (Hasin, 2018). As of November 2020, thirty-six states and the District of Columbia (D.C.) legalized medical marijuana use, with fifteen states and D.C. also legalizing recreational use in adults 21 years and older (Marijuana Policy Project website, 2021). Prior studies found increased marijuana use and cannabis use disorders among adults residing in states that have implemented medical and recreational marijuana laws compared to states without legalization (Cerdá et al., 2020; Hasin et al., 2017). Benefits of cannabis include improvement of chronic non-cancer pain and pain associated with cancer, multiple sclerosis, arthritis and human immunodeficiency virus (HIV)-associated neuropathy (Claflin et al., 2018; Johal et al., 2020; Phillips et al., 2010; Zajicek et al., 2012). Although the evidence for the use of medical cannabis is growing (Haffajee, 2021; Hesketh et al., 2017; Zajicek et al., 2012), so is the concern for the association between cannabis use and psychotic disorders (Andréasson et al., 1987; Henquet et al., 2005; van Os, 2002). There is currently a paucity of research on the impact of cannabis legalization on the risk of psychosis.

Psychotic disorders typically start in adolescence or young adulthood, with a substantial proportion of patients having difficulty completing education, maintaining employment and living independently as well as an increased risk of suicide and homelessness (Chong et al., 2009; Folsom et al., 2005; Marwaha and Johnson, 2004; Palmer et al., 2005; Ramsay et al., 2012). Increased cannabis use could lead to a higher rate of hospitalizations for psychosis by increasing the risk of developing an initial episode of psychosis, precipitating acute toxic reactions with psychotic symptoms, or increasing the likelihood of hospitalization for those with pre-existing psychotic disorders. There is nearly a four-fold risk increase in risk of developing schizophrenia or other psychotic disorders among heavy users of cannabis compared to non-users (Marconi et al., 2016). Daily use and higher potency

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cannabis with greater levels of tetrahydrocannabinol (THC) confers the highest risk of developing a psychotic disorder (Di Forti et al., 2009). Randomized controlled studies reveal that acute administration of THC in healthy individuals is associated with induction of psychotic symptoms (D'Souza et al., 2004). Finally, existing research shows that patients with schizophrenia who use cannabis are more likely to experience relapses requiring hospitalization (van Dijk et al., 2012).

We conducted a cross-sectional nationwide study to examine the association between geographical variation in hospitalizations for psychosis associated with cannabis use and cannabis legalization policies in 2017. We hypothesized that census divisions with more liberal cannabis legalization policies would have a greater rate of hospitalizations for psychosis with cannabis use. If our hypothesis is confirmed, this initial study will justify the need for follow-up studies using longitudinal state-level data to examine impact of state policies on trends in psychosis associated with cannabis use.

2. METHODS

2.1 Data Source and Study Population

This cross-sectional study used hospital discharge data from the 2017 National Inpatient Sample (NIS), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality (Agency for Healthcare Research and Quality, 2017). The NIS utilizes a complex sampling design that samples 20% of hospital discharges from state hospital discharge databases in 47 states and D.C. Hospital discharges are stratified by census division, hospital location (urban or rural), teaching status, ownership and bed size. The complex sampling design allows for national estimates, as the sampling frame covers 96% of hospital discharges and more than 97% of the U.S. population. Billing data submitted by hospitals provide *International Classification of Diseases, Tenth Revision, Clinical Modification* (ICD-10-CM) diagnosis codes for each hospitalization. The study population includes hospital discharges for adults between the ages of 18 and 64 years. This research is exempt from Institutional Review Board approval as it is minimal risk and limited to use of previously collected de-identified information.

2.2 Exposure

The NIS provides geographical data on census divisions but lacks information on individual states. The United States is composed of nine census divisions defined by the U.S. Census Bureau: New England, Mid-Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain and Pacific (Figure 1A). Exposure was categorized as hospital discharges in the Pacific census division compared to the reference group of all other census divisions. The Pacific census division was the only division where most states legalized recreational and marijuana use by 2017 (Figure 1B). The Pacific division is comprised of five states including four states that have legalized recreational use in adults 21 years and older as well as medical marijuana use (California, Oregon, Washington and Alaska) and one state (Hawaii) that has legalized medical marijuana only.

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2.3 Cannabis Legalization

The status of implementation of cannabis legalization in each state by 2017 was determined by review of the National Conferences of State Legislature website on medical marijuana laws, individual state statutes and the Marijuana Policy Project's state information websites (Marijuana Policy Project, 2021; National Conference of State Legislatures, 2021). We categorized each state based on implementation of legalization into three groups: 1) cannabis was illegal or medical cannabis programs restricted to cannabidiol (CBD)/low potency cannabis, 2) standard medical marijuana legalized (no potency restrictions), and 3) recreational and marijuana use was legalized. States where laws allowed personal cultivation were considered to have implemented cannabis legalization. For states restricting access to dispensaries, if dispensaries were open by 2017, they were considered to have implemented cannabis legalization. We grouped states that only legalized CBD/low potency cannabis with illegal states as these states generally restricted access to a small group of patients with refractory seizure disorders that failed conventional therapies. Cannabis legalization status established by this methodology is consistent with prior publications on medical and recreational cannabis legalization covering 2017 time period (Borodovsky et al., 2017; Shi and Liang, 2020). A detailed table of 2017 legalization status for each state can be found in Supplementary Table 1.

2.4 Outcome

The outcome of interest was the proportion of hospitalizations for psychosis associated with cannabis use out of all hospital discharges in individuals aged 18 to 64 years. We defined psychosis associated with cannabis use with ICD-10-CM diagnosis codes for cannabis-induced psychotic disorder (F12.15x, F12.25x, F12.95x) OR a combination of cannabis use disorder/poisoning (F12.x, T40.7x) and psychosis. Psychosis was defined as unspecified psychosis (F28, F29), brief psychotic disorder (F23), delusional disorder (F22), schizophrenia spectrum disorders (F20), schizoaffective disorder (F25), hallucinations (R44.0–3) and major depressive disorder or bipolar disorder with psychotic features (F32.3, F33.3, F30.2, F31.2, F31.5, F31.64).

2.5 Potential Confounders

Covariates included age, sex, race, and hospital location (rural, urban non-teaching or urban teaching), socioeconomic status (income quartile based on median household income for patient's ZIP code) derived from NIS variables. We included binary variables denoting presence or absence of disorders based on ICD-10-CM codes for substance use and psychiatric disorders: alcohol use disorder, other substance use disorder, nicotine use disorder, depression or anxiety, post-traumatic stress disorder (PTSD) and other psychiatric illness. We also included covariates for illnesses consistently identified in medical marijuana laws as debilitating conditions that are prerequisites for treatment: arthritis, cancer, HIV or acquired immunodeficiency syndrome (AIDS), multiple sclerosis, Parkinson's disease, epilepsy, cachexia, nausea/vomiting, inflammatory bowel disorders (Crohn's disease or ulcerative colitis) and chronic pain. ICD-10-CM codes used to define these covariates can be found in Supplementary Table 2.

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2.6 Statistical Analysis

Survey techniques were used for all analyses to account for the complex survey design. Sampling weights for discharges were provided by the NIS to obtain national estimates with unbiased standard errors. Analyses were performed with STATA version 15.1. Missing indicators were used to handle missing data from three variables: sex (0.01%), race (3.75%), and income quartile (1.89%).

2.6.1 Primary Analysis: Demographic factors and characteristics of the hospital discharges from the Pacific and other census divisions were compared. For the primary analysis, odds ratios (OR) and 95% confidence intervals (CI) were computed using logistic regression to compare the odds of hospital discharges for psychosis associated with cannabis use in the Pacific versus other census divisions. Univariable and multivariable models that include covariates specified above were used to provide unadjusted and adjusted estimates, respectively.

2.6.2 Secondary Analysis: For each census division, we calculated a Census Division Cannabis Legality Score as the population-weighted sum of state legality scores for each state within a division. State population and census division population for individuals age 18 – 64 years were obtained from U.S. Census data for 2017 (U.S. Census Bureau, 2017). Each state was assigned a cannabis legality score of 1 = illegal or CBD/low potency cannabis only, 2 = standard medical marijuana (no potency restrictions) and 3 = recreational and medical use. The Census Division Cannabis Legality Score was calculated as

$$\sum_{n=1}^{k}\left(\frac{state\ population}{total\ population\ of\ census\ division}\right) * State\ legality\ score$$

where k = number of states within a census division. The possible range of values for the Census Division Cannabis Legality Score is 1 to 3, where 1 represents all states within a division have not implemented legalization of cannabis or are restricted to CBD/low potency cannabis, and 3 represents all states within a division have implemented legalization of recreational and medical cannabis use. Scores for each state and census division are provided in Supplementary Table 1. Pearson's correlation coefficients were calculated to estimate the relationship between the proportion of hospitalizations within each census division with diagnosis of psychosis associated with cannabis use (model adjusted) and the Census Division Cannabis Legality Score. This analysis is considered exploratory; due to the complex sampling design, the proportion of hospitalizations in a census division from a given state may not precisely reflect state's proportion of hospitalizations.

To validate the Census Division Cannabis Legality Score, we used state-wide estimates of cannabis measures obtained from the National Survey on Drug Use and Health (NSDUH) estimates for 2017–2018 (Substance Abuse and Mental Health Services Administration, 2019). For each census division, we used these estimates to calculate the proportion of adults in each census division reporting past month use of cannabis, initial cannabis use, and perception of great harm from past month use of cannabis (see Supplementary Material for

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details). Pearson correlation coefficients were performed to estimate relationship between the Census Division Cannabis Legality Score and each of these measures.

2.6.3 Subgroup Analyses: Additional analyses included interaction terms for age and exposure (Pacific vs. other census divisions) and sex and exposure. Subgroup analyses were performed by age and sex. We divided age into categories by decade with additional division of younger patients into 18 – 20 and 21 – 29 years of age as recreational marijuana legalization is limited to adults 21 years and older.

2.6.4 Sensitivity Analyses: Modified Exposure/Outcome Definitions: As a sensitivity analysis, we defined the exposure as a categorical variable with each census division compared to the reference East South Central division, where all states only legalized CBD or low potency cannabis with limited THC content limited to patients with refractory seizures. Univariable and multivariable logistic regression models using the pre-specified covariates were used to estimate odds ratios comparing the odds of risk of psychosis associated with cannabis use for each census divisions compared to the reference East South Central division.

As prior literature demonstrates a relationship between cannabis use and development of non-affective psychotic disorders (Løberg et al., 2014), we repeated the primary analysis excluding diagnoses for affective psychosis or hallucinations from the outcome definition (i.e., excluded F32.3, F33.3, F30.2, F31.2, F31.5, F31.64, R44.0–3). In addition, cannabis use may be inconsistently coded when individuals are hospitalized for psychosis. We compared the odds of psychosis and non-affective psychosis between the Pacific versus other census divisions overall, regardless of whether a cannabis use disorder/poisoning diagnosis was present.

3. RESULTS

3.1 Study Population

The sample included 25,814 discharges for psychosis associated with cannabis use, yielding a national estimate of 129,070 hospital discharges for psychosis associated with cannabis use in the year 2017 alone. Demographic and clinical characteristics associated with hospital discharges in the Pacific and other census divisions are presented in Table 1. There were 479,071 hospital discharges (13.9%) within the Pacific census division, compared to 2,979,171 in other census divisions. Age distribution and gender were comparable between the two groups. Rates of alcohol use disorder were similar at 7.9% and 8.3% in the Pacific and other census divisions, respectively. Hospital discharges from the Pacific census division were more likely to occur in an urban location, involve patients of Hispanic or Asian/Pacific Islander race and of higher income quartile, were less likely to involve patients of Black race and more commonly had diagnosis codes for smoking or depression/anxiety. Rates for conditions for which medical cannabis is indicated including arthritis, cancer, HIV/AIDS, multiple sclerosis, and nausea/vomiting were largely comparable between the Pacific and other census divisions.

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3.2 Primary Analysis

Hospitalizations for psychosis associated with cannabis use were more likely to occur in the Pacific division than other census divisions with an unadjusted OR of 1.32 (95% CI 1.01 – 1.72) and adjusted OR of 1.55 (95% CI 1.25 – 1.93), after adjusting for demographics, hospital characteristics and presence of other disorders (Table 2).

3.3 Census Division Cannabis Legality Score

The division with the highest Census Division Cannabis Legality Score was the Pacific division (2.97) while the divisions with the lowest scores were East South Central and West South Central (1.00) (Supplementary Table 1). We found a significant correlation between the proportion of hospitalizations for psychosis associated with cannabis use and the Census Division Cannabis Legality Score (Figure 2; r=0.67, p<0.05).

There were significant positive correlations between the Census Division Cannabis Legality Score and NSDUH estimates of the proportion of individuals with past month cannabis use (r=0.90, p=0.0008) and initial use of cannabis (r=0.80, p=0.01) (Supplementary Figure 1). We also observed a trend between the Census Division Cannabis Legality Score and perception of great harm from past month use of cannabis (r=−0.61, p=0.08), where divisions with more liberal cannabis legalization had a lower perception of harm. These findings from NSDUH estimates support the validity of the Census Division Cannabis Legality Score.

3.4 Subgroup Analyses

We identified a significant interaction between age and exposure (Pacific vs. other census divisions; p=0.02). Subgroup analyses by age category are presented in Supplementary Table 3 and indicated a greater association between census division and psychosis associated with cannabis use as age increased. Interestingly, hospital discharges from the Pacific census division had a significantly greater odds of having diagnosis of psychosis in all age groups except for age 18 – 20 years (OR 1.22, 95% CI 0.98 – 1.53). There was no significant interaction between exposure and sex (p=0.47) with similar adjusted OR for females and males (OR 1.60, 95% CI 1.27 – 2.02 for females; OR 1.52, 95% CI 1.22 – 1.89 for males).

3.5 Sensitivity Analyses

Hospitalizations for psychosis associated with cannabis use were significantly more likely to occur in all census divisions compared to East South Central, with the notable exception of West South Central (Table 3). Of note, East and West South Central are the only two census divisions where all states had not implemented legalization of medical or recreational cannabis or restricted medical use to CBD/low potency cannabis.

Hospitalizations for non-affective psychosis associated with cannabis use were also more likely to occur in the Pacific division than other census divisions with an unadjusted OR of 1.47 (95% CI 1.10 – 1.97) and adjusted OR of 1.75 (95% CI 1.38 – 2.22). Hospitalizations for psychosis and non-affective psychosis, regardless of whether cannabis use diagnosis was present, were also more likely to occur in the Pacific division compared to other

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census divisions [psychosis overall: adjusted OR 1.32 (95% CI 1.12 – 1.57); non-affective psychosis: adjusted OR 1.45 (95% CI 1.21 – 1.73)].

4. DISCUSSION

This nationwide study identified a greater proportion of hospital discharges for psychosis associated with cannabis use in the Pacific census division, the area with the most liberal cannabis legalization policies in the United States. We found a significant correlation between the proportion of hospitalizations for psychosis associated with cannabis use within each division and the Census Division Cannabis Legality Score, a novel score that we developed and validated to represent the status of cannabis legalization within each census division, suggesting that areas that implemented more liberal cannabis legalization policies were more likely to have a greater proportion of discharges for psychosis associated with cannabis use. Consistent with our hypothesis, each census division had a greater proportion of hospitalizations for psychosis associated with cannabis use compared to the East South Central division, the region with the most restrictive laws, except for the West South Central division. The West South Central division was the only other census division where all states only legalized CBD/low potency cannabis use or cannabis use was fully illegal.

Our findings are consistent with studies identifying an increase in cannabis use and cannabis use disorders in states that have legalized medical and/or recreational marijuana (Cerdá et al., 2020; Haffajee, 2021; Hasin et al., 2017), as well as studies finding an increased risk of poisoning following commercialization of recreational cannabis use and increased hospitalizations associated with cannabis legalization (Davis et al., 2016; Shi and Liang, 2020). However, this is the first study to specifically examine the association between cannabis legalization and hospital discharges for psychosis associated with cannabis use. Increased hospitalizations for psychosis in areas experiencing an increase in cannabis use or cannabis use disorders associated with legalization could be due to multiple reasons. First, multiple cohort studies have found that individuals who are daily users of cannabis have an increased risk of psychosis and schizophrenia (Andréasson et al., 1987; Henquet et al., 2005; van Os, 2002). A case control study identified an increased risk of heavy cannabis use in those with first episode psychosis, with a greater association in those who used cannabis with high levels of THC (Di Forti et al., 2009). In a study of European cities, the incidence of psychosis in various cities was correlated with local prevalence of daily cannabis use and high potency cannabis use (Di Forti et al., 2019). Secondly, patients without pre-existing history of psychosis may experience an acute self-limited toxic reaction to cannabis with psychotic symptoms, consistent with studies showing that acute administration of THC in healthy individuals leads to an increase in psychotic-like symptoms (D'Souza et al., 2004). Finally, patients with pre-existing psychotic disorders such as schizophrenia have been shown to be more likely to experience a relapse requiring hospitalization if they are using cannabis (van Dijk et al., 2012). By studying hospitalizations, this study focuses on serious cases of psychosis with diagnosis codes that link psychosis to cannabis use.

Multiple studies have consistently shown that legalization of medical marijuana and recreational marijuana are associated with an increase in cannabis use and cannabis use disorders in adults (Cerdá et al., 2020; Haffajee, 2021; Hasin et al., 2017), but not

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adolescents (Sarvet et al., 2018). In our study, the proportion of hospitalization discharges for psychosis associated with cannabis use was significantly higher in the Pacific Division than other census divisions in all age groups except for those 18 – 20 years of age. Since legalization of recreational use is limited to adults 21 years and older, this finding is suggestive of a possible association between hospitalizations for psychosis and recreational legalization more so than medical marijuana legalization. A previous study of the impact of recreational legalization on cannabis use did not find any changes in cannabis use or use disorders in adults 18 – 25 years but did not divide this group of adults into those legally impacted (21 years and older) (Cerdá et al., 2020). This same study found no increase in use or frequent use in the past month in adolescents age 12–17 years after recreational legalization with a slight increase in cannabis use disorders, which the authors acknowledged may have been due to time-varying confounding. In contrast, in adults 26 years and older, legalization of recreational marijuana was associated with an increase in past month use, past-month frequent use, and cannabis use disorders. This constellation of findings suggest that recreational legalization increases cannabis use and adverse consequences of cannabis use in adults who are legally impacted by laws.

A strength of this study is the large sample size that facilitates detection of rare events. The complex sampling design allows for national estimates, with an estimated 129,070 hospitalizations for psychosis associated with cannabis use in the year 2017 alone. Our findings are strengthened by consistency of results from primary, secondary and sensitivity analyses even after adjusting for covariates reflecting demographic factors, hospital characteristics and presence of other disorders associated with psychosis or cannabis use. We constructed a novel Census Division Cannabis Legality Score and found a significant correlation between these scores and the proportion of hospital discharges for psychosis associated with cannabis use within census divisions. This score was validated by correlations with NSDUH estimates of cannabis use measures. If confirmed, the finding of increased psychosis with cannabis legalization is an important consideration when weighing the risks and benefits of such policies, with appropriate education of the public of such risk and strengthening of support programs for psychosis associated with cannabis use when laws are enacted.

This study has several limitations including the cross-sectional design and restriction to one year of hospital data. The database of hospital discharges does not have subject-level data, such that a patient hospitalized more than once in 2017 will be represented as multiple hospital discharges. Diagnoses were limited to ICD-10-CM billing data, and hospital discharges for psychosis may have under-reporting of cannabis use or other medical comorbidities. NIS data has no information on the potency of cannabis used by patients, and strains of cannabis differ in terms of the quantity of THC and CBD (ElSohly et al., 2016). This study is also limited by the lack of state-specific data, as there is heterogeneity in state cannabis policies within census divisions. Any association between legalization policies and hospitalizations for psychosis associated with cannabis use may be due to other factors such as increased potency of cannabis over time (National Academies of Sciences, Engineering, and Medicine et al., 2017) or increases in perceived safety of cannabis (Compton et al., 2016; Pacek et al., 2015). It is possible that other unmeasured factors may be responsible for our findings; for example, California, the largest state in the Pacific census division,

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has a high rate of homelessness, with 1.9 times the national rate (The Council of Economic Advisers, 2019). Individuals who are homeless are disproportionately afflicted with substance use disorders and serious mental illnesses such as schizophrenia (Fischer and Breakey, 1991; Folsom and Jeste, 2002). Future studies employing a longitudinal design using state data to examine trends in psychosis over time associated with cannabis use and legalization are required.

In summary, this is the first cross-sectional population-based study of hospital discharges that revealed there is geographic variation in hospitalizations for psychosis associated with cannabis use that was associated with implementation of cannabis legalization policies. Given the rapid changes in legislative landscape, there is a need for further longitudinal research to better understand the nature of the relationship between cannabis legalization and the risk of psychosis.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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HIGHLIGHTS:

- Hospitalizations for psychosis/cannabis use more likely in areas where cannabis legalized.
- Recreational cannabis legalization associated with greater rate of hospitalization.
- Findings warrant future longitudinal studies to evaluate psychosis in U.S. states.

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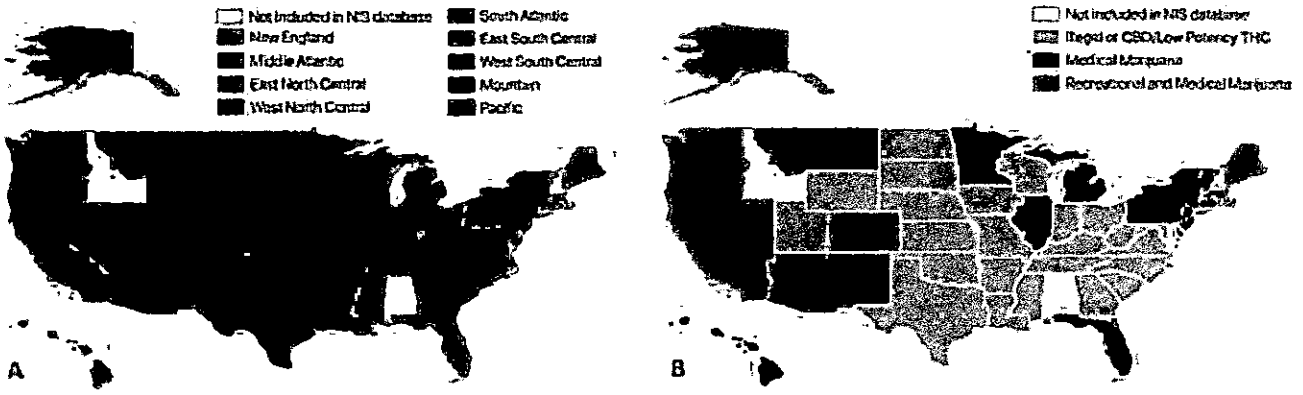


Figure 1:

A. Nine hospital census divisions represented in the National Inpatient Sample (NIS). **B.** Status of implementation of cannabis legalization laws in the United States in 2017 by state: illegal or cannabidiol (CBD)/low potency cannabis; standard medical marijuana, recreational and medical marijuana.

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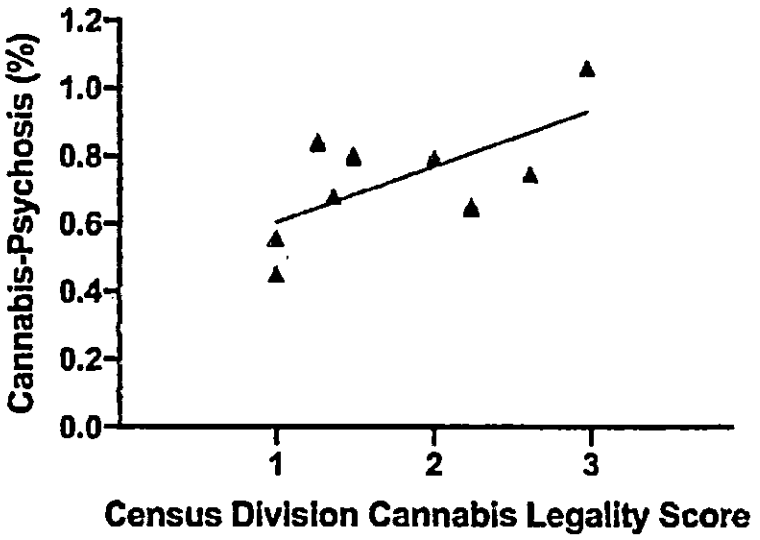


Figure 2:

Correlation between percentage of hospitalizations with diagnosis of psychosis associated with cannabis use (adjusted for covariates) in each census division and Census Division Cannabis Legality Score (r=0.67, p<0.05). The Census Division Legality Score was calculated as sum of state legality scores weighted by proportion of state population in census division. State legality scores were defined as: 1 = illegal or cannabidiol/low potency cannabis, 2 = standard medical marijuana and 3 = recreational and medical marijuana. Census Division Cannabis Legality Scores ranged from 1 – 3.

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Table 1:

Baseline characteristics of hospital discharges by census division

	Pacific Census Division *N* = 479,071	Other Census Divisions *N* = 2,979,171
Age, *n* (%)		
18 – 20 years	16,031 (3.4)	102,232 (3.4)
21 – 29 years	90,194 (18.8)	540,128 (18.1)
30 – 39 years	111,962 (23.3)	604,979 (20.3)
40 – 49 years	73,964 (15.4)	477,670 (16.0)
50 – 59 years	115,634 (24.1)	778,788 (26.1)
60 – 64 years	71,286 (14.9)	475,374 (16.0)
Female sex, *n* (%)	293,599 (61.3)	1,795,345 (60.3)
Race, *n* (%)		
White	221,464 (46.2)	1,764,239 (59.2)
Black	44,045 (9.2)	586,004 (19.7)
Hispanic	139,579 (29.1)	327,467 (11.0)
Asian/Pacific Islander	45,339 (9.5)	55,605 (1.9)
Other	20,870 (4.4)	124,087 (4.2)
Income level, *n* (%)		
0–25th percentile	95,934 (20.0)	1,017,201 (34.1)
26–50th percentile	110,583 (23.1)	782,419 (26.3)
51–75th percentile	128,247 (26.8)	642,765 (21.6)
76–100th percentile	124,952 (26.1)	490,647 (16.5)
Location of hospital, *n* (%)		
Rural	14,398 (3.0)	268,578 (9.0)
Urban (non-teaching)	144,580 (30.2)	607,256 (20.4)
Urban (teaching)	320,093 (66.8)	2,103,337 (70.6)
Alcohol use disorder, *n* (%)	37,735 (7.9)	247,929 (8.3)
Other substance use disorder, *n* (%)	44,928 (9.4)	234,912 (7.9)
Smoking, *n* (%)	76,397 (16.0)	686,336 (23.0)
Depression/Anxiety, *n* (%)	84,954 (17.7)	704,686 (23.7)
PTSD, *n* (%)	10,835 (2.3)	90,279 (3.0)
Other psychiatric disorder, *n* (%)	2,570 (0.5)	18,737 (0.6)
Debilitating conditions required for medical cannabis use		
Arthritis, *n* (%)	28,935 (6.0)	231,609 (7.8)
Cancer, *n* (%)	23,707 (5.0)	146,841 (4.9)
HIV/AIDS, *n* (%)	2,709 (0.6)	19,808 (0.7)
Multiple sclerosis, *n* (%)	2,164 (0.5)	18,973 (0.6)
Parkinson's Disease, *n* (%)	1,076 (0.2)	6,658 (0.2)
Epilepsy, *n* (%)	17,820 (3.7)	125,476 (4.2)

	Pacific Census Division $N = 479,071$	Other Census Divisions $N = 2,979,171$
Nausea and vomiting, *n* (%)	9,194 (1.9)	66,581 (2.2)
Cachexia, *n* (%)	2,840 (0.6)	17,001 (0.6)
Glaucoma, *n* (%)	2,134 (0.5)	14,788 (0.5)
Inflammatory bowel disease, *n* (%)	4,865 (1.0)	38,381 (1.3)
Chronic pain, *n* (%)	37,417 (7.8)	237,036 (8.0)

PTSD = post-traumatic stress disorder. *n* is the study sample size with weighted %.

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Table 2:

Psychosis Associated with Cannabis Use and Pacific vs. Other Census Divisions in the 2017 National (Nationwide) Inpatient Sample

	Study Sample		National Estimates			
	Pacific Census Division *N*=479,071	Other Census Divisions *N*=2,979,171	Pacific Census Division *N*=2,395,348	Other Census Divisions N=14,895,853	Unadjusted OR (95% CI)	Adjusted OR* (95% CI)
Psychosis associated with Cannabis Use Hospitalizations, *n* (%)	4,502 (0.94)	21,312 (0.72)	22,510 (0.94)	106,560 (0.72)	1.32 (1.01, 1.72)	1.55 (1.25, 1.93)
Other Hospitalizations (Not psychosis associated with cannabis use), *n* (%)	474,569 (99.1)	2,957,859 (99.3)	2,372,838 (99.1)	14,789,293 (99.3)	-	-

OR = odds ratio, CI = confidence interval.

*Adjusted for age, sex, race, income quartile, hospital location, alcohol use disorders, other substance use disorders, smoking, depression/anxiety, post-traumatic stress disorder, other psychiatric disorders, arthritis, cancer, HIV/AIDS, multiple sclerosis, Parkinson's disease, epilepsy, nausea/ vomiting, cachexia, glaucoma, inflammatory bowel disease and chronic pain. Survey methods were used to derive weighted percentages and standard errors.

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Table 3:

Psychosis Associated with Cannabis Use and Census Division vs. East South Central in the 2017 National Inpatient Sample

Census Division	Unadjusted OR (95% CI)	Adjusted OR (95% CI)*
Pacific	2.03 (1.33, 3.10)	2.46 (1.75, 2.09)
New England	1.55 (1.06, 2.27)	1.70 (1.24, 2.32)
Mid-Atlantic	1.86 (1.30, 2.66)	1.81 (1.35, 2.44)
East North Central	1.78 (1.24, 2.58)	1.83 (1.36, 2.47)
West North Central	1.92 (1.32, 2.80)	1.92 (1.42, 2.58)
South Atlantic	1.62 (1.13, 2.33)	1.54 (1.15, 2.07)
Mountain	1.28 (0.83, 1.98)	1.45 (1.01, 2.09)
West South Central	0.98 (0.67, 1.45)	1.25 (0.91, 1.71)
East South Central	-	-

OR = odds ratio, CI = confidence interval.

*Adjusted for age, sex, race, income quartile, hospital location, alcohol use disorders, other substance use disorders, smoking, depression/anxiety, post-traumatic stress disorder, other psychiatric disorders, arthritis, cancer, HIV/AIDS, multiple sclerosis, Parkinson's disease, epilepsy, nausea/vomiting, cachexia, glaucoma, inflammatory bowel disease and chronic pain.

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Timing of Cannabis Exposure Relative to Prodrome and Psychosis Onset in a Community-Based First Episode Psychosis Sample

Emily R. Kline[1,2,3,4], **Maria Ferrara**[5], **Fangyong Li**[5], **Deepak Cyril D'Souza**[5], **Matcheri Keshavan**[1,2], **Vinod H. Srihari**[5]

[1]Harvard Medical School, Department of Psychiatry

[2]Beth Israel Deaconess Medical Center, Department of Psychiatry

[3]Boston University School of Medicine, Department of Psychiatry

[4]Boston Medical Center

[5]Yale University School of Medicine, Department of Psychiatry

Abstract

Cannabis has been implicated as both a potential cause and adverse prognostic factor in psychotic disorders. Investigating the contributory role of cannabis toward the overall burden of psychotic illnesses may represent an important step toward psychosis prevention and treatment. The current study samples consecutive admissions (N = 246) to two community based first-episode psychosis services to characterize timing of cannabis use relative to psychosis and attenuated symptom onset, differences between those with and without cannabis exposure, and the association of age at first cannabis exposure with clinical and demographic variables. Both cannabis exposure (78%) and cannabis use disorders (47%) were highly prevalent at admission. In 94% of participants, cannabis use preceded the onset of both attenuated and full-threshold psychosis symptoms by several years. Earlier age at first exposure to cannabis was associated with younger age at prodrome and psychosis onset, worse premorbid functioning, and greater severity of cannabis use disorder at admission. The timing of first exposure to cannabis may have individual prognostic as well as public health significance. Documenting the prevalence and impact of cannabis use in early psychosis samples, as well as the overall incidence of psychotic disorders, will be of vital public health significance as the United States enacts cannabis legalization and cannabis products become more widely available.

Corresponding Author: Dr. Emily Kline, Assistant Professor of Psychiatry, Boston University, School of Medicine, 720 Harrison Avenue, Boston, MA, USA, 02118. Emily.Kline@bmc.org, Telephone: +1 (617) 752-1457.

Dr. Kline conducted the analyses, drafted the manuscript, and prepared the manuscript for publication. Dr. Ferrara, Mr. Li, and Dr. D'Souza contributed content expertise and assisted with manuscript preparation. Drs. Keshavan and Srihari designed the study and supervised all aspects of data collection and analysis. All authors have contributed to and reviewed this manuscript.

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Keywords

cannabis; marijuana; first episode psychosis; prodrome; schizophrenia

1. Introduction

Cannabis use is common and consequential in the early phases of schizophrenia. A history of cannabis use among adolescents and young adults receiving treatment for a first episode of psychosis is common, both in the immediate circumstances leading to the onset of psychosis as well as more habitually throughout adolescence (Myles et al., 2016). Ongoing cannabis use in the context of first episode psychosis (FEP) is also common (Marino et al., 2020). Cannabis use in patients with diagnosed illness can exacerbate symptoms and serves as a very strong predictor of relapse and/or chronicity of illness (Patel et al., 2016; Schoeler et al., 2016a; Schoeler et al., 2016b; Seddon et al., 2016).

Cannabis, specifically the delta-9-tetrahydrocannabinol (THC) constituent, has been implicated as a cause of transient psychotic symptoms and a risk factor for schizophrenia (Radhakrishnan et al., 2014; Patel et al., 2020). Recent research has highlighted cannabis use prevalence and THC content as important population-level risk factors for chronic psychosis (Di Forti et al., 2019). However, the absolute risk of psychotic disorders for cannabis users remains small, and many individuals with psychosis have no history of cannabis use. Cannabis use is neither necessary nor sufficient for psychosis development; rather, the cannabis "route" can be conceptualized as one among several possible pathways to psychosis within a diathesis-stress framework (Loberg et al., 2014; Wilkinson et al., 2014).

The role of cannabis use in the worsening of prodromal symptoms preceding FEP onset remains unclear. Studying cannabis use among individuals at "clinical high risk" (CHR; that is, expressing sub-threshold symptoms representing a prodromal stage of psychosis) has yielded limited insights. In a meta-analysis of prospectively followed individuals at CHR for psychosis, cannabis use did not significantly predict conversion to a psychotic disorder (Oliver et al., 2020). Critiques of the CHR paradigm, however, have pointed out that the low and/or uneven progression to psychotic disorders within this population limits useful inferences about the relationship between cannabis and schizophrenia from CHR samples (Ajnakina et al., 2018; Malhi et al., 2021). So, although cannabis appears to pose risks to both the general population and individuals experiencing psychosis, the impact of cannabis on the initiation and worsening of subthreshold psychosis symptoms for those who do progress to schizophrenia remains obscure.

Over the past decade, the United States has enacted policies of cannabis liberalization, with full legal access to cannabis for adult non-medical ("recreational") users in some states (Pacula & Smart, 2019). At the same time, use among young adults has become more prevalent (Odani et al., 2019), and cannabis products have increased in potency (ElSohly et al., 2016). Taken together, these trends could result in higher incidence of FEP onset, thereby placing greater demands on clinical services. In summary, there is an urgent need to better understand the prevalence, impact, and timing of cannabis use in early phase clinical samples. Few such studies have been conducted in the United States (Marino et al., 2020).

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The growth of specialty team-based coordinated specialty care (CSC) services for FEP across the United States (Dixon et al., 2018) provides an opportunity to better understand the role of cannabis in early course schizophrenia spectrum disorders. The current study utilized an ecologically relevant U.S. community-based sample of patients admitted to two CSC services between 2014–2019. Specific aims are to characterize the timing of cannabis exposure relative to the attenuated positive syndrome and psychosis onset, and to evaluate demographic and clinical differences between those with and without cannabis exposure.

2. Methods

2.1. Setting and sampling

Subjects were recruited from consecutive admissions to CSCs based in two public community mental health centers in the Northeastern United States: the clinic for Specialized Treatment Early in Psychosis (STEP) at the Connecticut Mental Health Center in New Haven (Srihari et al., 2009) and the clinic for Prevention and Recovery in Early Psychosis (PREP®) at the Massachusetts Mental Health Center in Boston (Caplan et al., 2013). The neighborhoods surrounding both the STEP and PREP clinics are densely populated, racially diverse urban and suburban areas with significant immigrant populations. As part of a two-site study of early detection, both CSCs used the same broad and simple eligibility criteria to inclusively engage individuals between 16–35 years, with a putative primary non-affective psychotic disorder of onset within the prior three years. Exclusions were made for psychosis established as secondary to a medical condition, primary affective disorder or substance-induced psychotic disorder (including cannabis). Antipsychotic exposure of any duration was not an exclusion or inclusion criteria, though patients who had already received CSC treatment at another clinic were excluded. An early detection campaign targeted STEP's catchment for four years, after an initial year of usual detection, while PREP continued to offer usual detection throughout. The current analysis includes subjects enrolled across the entire study period (February 1st 2014 to January 31st 2019). A detailed protocol has been published (Srihari et al., 2014).

All study procedures were approved and monitored by the Institutional Review Boards of Yale University, Beth Israel Deaconess Medical Center, and Massachusetts Department of Mental Health. Patients provided informed consent to participate in this study.

2.2 Measures

2.2.1 Baseline characteristics—Age, race, ethnicity, educational attainment of patients and their parents, type of health insurance (an indication of socioeconomic status in the United States; recorded as public or none vs. private) and country of origin was recorded at clinic enrollment at each site.

2.2.2 Premorbid functioning—Interviewers administered the Premorbid Adjustment Scale (Cannon-Spoor et al., 1982) and the Wide Range Achievement Test Word Reading Task (Wilkinson & Robertson, 2006)

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2.2.3 Cannabis use—Participants were asked, "have you ever used cannabis/marijuana?" and "at what age did you first try cannabis/marijuana?" Answers were recorded as expressed. Raters also completed the "Drug Use Scale" (DUS), an interview-rated 5-point scale based on DSM criteria for severity of substance use disorder over the prior six months: 1 = abstinence, 2 = use without impairment, 3 = abuse, 4 = dependence, and 5 = dependence with institutionalization (Drake et al., 1990).

2.2.4 Diagnosis, age of prodrome and psychosis onset, and duration of untreated psychosis—Primary and substance use related diagnoses were determined via Structured Clinical Interview for the DSM-IV (SCID-IV; First et al., 2002). Criteria established within the scale for Structured Interview of Psychosis-Risk Syndromes (SIPS; McGlashan et al., 2010; Yovienne Sykes et al., 2019) were used to differentiate psychosis from the prodrome or Attenuated Psychosis Syndrome (APS), and to date the onset of each illness phase (Ferrara et al., 2021). Collateral information was obtained for nearly all participants from parents or other family members as well as review of medical records. Based on available literature, we expected variability in ascertainment of information about the prodrome: e.g., that some participants would not be able to confirm this phase, or that others might report attenuated symptoms but without a defined onset (Schultze-Lutter et al., 2015; Shah et al., 2017). Therefore, each participant was classified into one of four mutually exclusive categories: (i) Very acute onset psychosis (no prodrome); (ii) Prodrome identified with estimate of APS syndrome onset date; (iii) Prodrome identified but unable to estimate APS syndrome onset date; and (iv) Unable to determine presence or absence of APS.

Interviewers wrote a narrative describing each participant's current symptoms, psychiatric history, APS categorization, dates of treatment initiation, and the interviewer's determination as to dates of onset of APS and full psychosis. Narratives were presented on weekly calls with at least one lead investigator from each site present to ensure consensus regarding diagnosis, APS and psychosis onset dates, and DUP. Age at APS and psychosis onset was calculated for each participant using birthdate and consensus dates of APS/psychosis onset. Duration of Untreated Psychosis (DUP) was calculated as the elapsed time between psychosis onset and CSC admission.

2.2.5 Clinical status and functioning—Participants were assessed at enrollment with the Positive and Negative Syndrome Scale for Schizophrenia (PANSS; Kay et al., 1987), the SIPS Global Assessment of Functioning (GAF; McGlashan et al., 2010), the Global Functioning Social and Role Scales (GF-S/GF-R; Piskulic et al., 2011), the Hopkins Verbal Learning Test (three-trial immediate recall only; Brandt & Benedict, 2001), the Symbol Coding task from the Brief Assessment of Cognition in Schizophrenia battery (Keefe et al., 2008), and the Managing Emotions subtest from the Myers-Salovey-Caruso Emotional Intelligence Test (Mayer et al., 2003). For these three neuro/social cognitive tests, age and gender normed t-scores were obtained using Matrics Consensus Cognitive Battery (Nuechterlein et al., 2008) scoring software. Interviewers participated in quarterly reliability training to ensure consistent scoring on clinician-rated assessments across sites.

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2.3 Analyses

Independent samples t-tests and chi-square tests were conducted to examine differences between participants with and without cannabis exposure. For t-tests, the assumption of equal variances was tested via Levene's test; reported statistics represent adjusted values when the assumption was violated. Pearson correlations were used to identify associations between age of cannabis exposure, current severity of cannabis use, DUP, and clinical and cognitive illness severity. Participants with a missing data point were excluded per analysis but retained within the sample overall.

3. Results

Two hundred forty-six subjects were enrolled. The majority were male (71%) with a mean age of 22.27. The sample was broadly representative of the clinic catchments, with a significant proportion who identified as black (45%), Hispanic/Latino (19%), or first-generation immigrant (16%). Median DUP was 224 days (25–75 IQR = 67–533). Primary diagnoses were schizophrenia (59%), schizoaffective disorder (19%), schizophreniform disorder (8%), brief psychotic disorder (1%), and unspecified psychotic disorder (13%). With regard to prodromal illness, 11 participants (4%) had a very acute onset with no APS period, 204 (83%) had a discernible APS onset ranging from 1 day to 12 years before psychosis onset, 12 (5%) had confirmed attenuated symptoms without an estimable date of onset, and 19 (8%) could not be categorized. Additional sample descriptors are summarized in Table 1.

For those with SCID substance use disorder data (n = 245), a majority (133, 54%) had a current or lifetime substance use disorder (SUD). The vast majority of SUDs (115 or 47% of the sample) involved cannabis use disorder (CUD) alone or in combination with other substances (including nicotine). Among those with CUD, 85 (70%) met criteria for a current CUD while the remainder were in remission. DUS ratings for cannabis aligned well with SCID diagnoses: 146 (59%) of participants acknowledged using cannabis at least once in the past six months, and 85 (35%) met abuse or dependence criteria within the past six months. Total cannabis exposure was bimodally distributed, with 54 participants (22%) reporting no lifetime use and 121 (49%) reporting 300+ episodes of lifetime use. None of the individuals with known cannabis use history (for example, by medical record) denied having used the substance on interview.

Individuals with a history of cannabis use were more likely to be male (χ^2 [1, 246] = 17.05, $p < .001$) and to have been born in the United States (χ^2 [1, 246] = 9.08, $p = .003$), but were otherwise indistinguishable from non-users in terms of other variables, including demographic factors (race, ethnicity, mother's education, and insurance status), premorbid functioning, clinical presentation at admission to CSC, age of APS and psychosis onset, APS duration, and DUP (see Table 2).

Of the 192 individuals who acknowledged any exposure to cannabis, 191 (99.5%) were able to report age of first use. The average self-reported age of first cannabis use was 15.67 and normally distributed (range, 5–25). First cannabis use for the vast majority (94%) occurred prior to FEP onset, for 5% at the same time as FEP onset, and for only 1% after FEP onset.

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Similarly, 80% reported first using cannabis prior to APS, 11% at the same time as APS onset, and 9% after APS onset. Figure 1 shows the distribution of age cannabis initiation, APS onset, and FEP onset.

Age at first use was normally distributed (range = 2–25) and significantly correlated with the general subscale of the premorbid adjustment scale (r=−.20, p=.005), current cannabis use severity (rated on the Drug Use Scale, r=−.16, p=.027), age at APS onset (r=.20, p=.014), and age at FEP onset (r=.20, p=.006). Age at first use was not significantly associated with other variables measured at admission (listed in Table 1).

4. Discussion

Cannabis use and abuse was highly prevalent in this sample of FEP patients served in these racially diverse, mostly urban United States settings. The vast majority (78%) of incoming FEP patients across these two programs acknowledged at least one prior episode of cannabis use, 59% had used cannabis in the past six months, and 47% met clinical criteria for a current or lifetime CUD. For context, in 2017 the prevalence of past-month cannabis use was estimated to be 22% of young adults ages 18–25 in the United States, and the prevalence of CUD in this age group was estimated at 5% (Bose et al., 2018). The elevated prevalence of cannabis use disorders in this sample may be a function of using the complete SCID, which includes the full range of severity of substance use disorders and may therefore have relatively few false negatives. That cannabis exacerbates psychosis symptoms for many users with FEP thus qualifies their use, by this definition, as disordered; however, study clinicians were able to differentiate between FEP participants with recent cannabis use (n = 146) and those with a current CUD (n = 85).

Nearly all cannabis users in the FEP sample reported that they began using cannabis prior to the onset of psychosis or psychotic-like symptoms. This is consistent with prior findings (Myles et al., 2016) and supports a growing consensus (Rey et al., 2004) that elevated cannabis use among those with psychosis and psychosis-risk syndromes is unlikely to be fully attributable to attempts to alleviate distress or confusion stemming from emerging psychosis. A small minority (9%) of patients did report that they began using cannabis after the onset of attenuated psychotic symptoms, for whom a self-medication role of cannabis is more plausible (Gill et al., 2015).

Within this sample, cannabis exposure was not associated with known socioeconomic determinants of health such as race, Hispanic/Latino ethnicity, mother's educational attainment, or private insurance (a proxy for socioeconomic status in the United States). This finding is consistent with general population research showing that cannabis use among adolescents and young adults in the United States is less socioeconomically determined relative to other substances such as alcohol (Haberstick et al., 2014).

Earlier age of first cannabis use was significantly associated with worse premorbid functioning, more problematic use at time of admission, and earlier age at both prodrome and psychosis onset: all factors known to predict poorer prognosis (Alvarez-Jimenez et al., 2012; Goldberg et al., 2011; Schoeler et al., 2016b; Tuulio-Henriksson et al., 2004).

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Other studies have found earlier age at illness onset for psychosis patients with a history of cannabis use vs. cannabis-naïve patients (Large et al., 2011). Our finding is slightly more nuanced and replicates the results obtained by DiForti and colleagues (2014), who showed that younger age at first cannabis use (rather than any history of use) predicts younger age at psychosis onset. Some have pointed out that the association of cannabis use with younger age of psychosis onset may be confounded by sex (Myles et al., 2012); however, in the current study, males were likelier to have ever used cannabis but did not differ from females regarding age at first use. These findings suggest that timing of first exposure to cannabis may be an important prognostic factor for individuals who go on to develop psychosis.

Strengths of this study include a well-defined early psychosis sample that is reflective of the kinds of patients targeted by United States CSCs, a rigorous consensus-based process for retrospective dating of APS and psychosis onset, and a long period of continuous enrollment. Few studies on the prevalence and impact of cannabis use prior to and during a first episode of psychosis have been conducted in the U.S. The timing of the study is also notable, as data collection took place immediately before full legalization of adult cannabis use in Massachusetts and much of the United States overall. The liberalization of cannabis laws in the United States constitutes a historic policy and culture change that may impact the incidence of psychosis as these policies take effect.

The primary weaknesses of the study are the reliance upon self-report data for cannabis exposure and ongoing use, as well as potential recall bias regarding age of first use and first psychotic symptoms. The exclusion of individuals with established "cannabis-induced psychotic disorder" from the FEP treatment sites at which the study was conducted may also represent a weakness, as there is emerging evidence that this diagnosis is often unstable and progressive toward chronic recurrent psychotic illness (Starzer et al., 2018). Additionally, it is important to note that several analyses, especially those involving dichotomous variables, may have been underpowered to detect significant effects.

Our findings suggest that delaying initiation of cannabis use among young adolescents may have substantial public health benefits, a conclusion shared by researchers and policy makers interested in a diverse array of social and psychiatric outcomes (Murray & Hall, 2020; Nguyen et al., 2020). This may involve policies such as prohibiting sales of cannabis preparations that are enticing to young consumers (e.g., edible cannabis candies) as well as public health interventions directed at general population settings such as schools or indicated settings such as general adolescent psychiatry clinics. The high prevalence of cannabis abuse noted within the FEP clinical population also suggests the need for specialty care sites to focus treatment more explicitly on cannabis reduction. Continuing to document the prevalence and impact of cannabis use in FEP samples, as well as the overall incidence of psychotic disorders, will be of vital public health significance as the United States enacts cannabis legalization and cannabis products become more widely available to American consumers.

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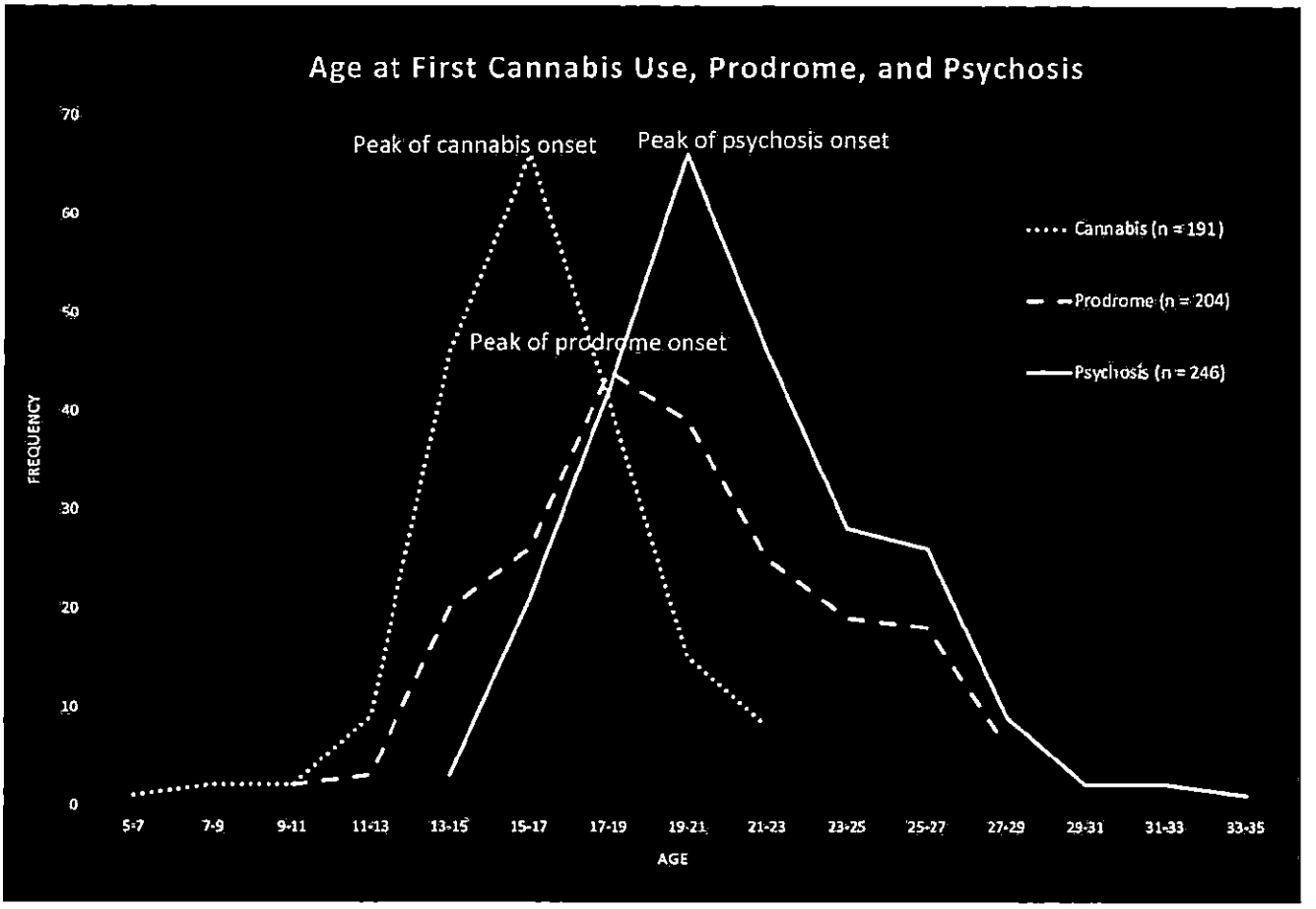


Figure 1.
Age at First Cannabis Use, Prodrome, and Psychosis

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Table 1

Sample Demographic and Clinical Characteristics (N= 246)

	N (%)		Mean (SD)
Gender		Age at Study Enrollment	22.27 (3.53)
Male	174 (71%)	Age at APS Onset[1]	19.80 (4.04)
Female	72 (29%)	Age at Psychosis Onset	21.28 (3.56)
Race		Clinical and Functional Assessments	
Native North American	1 (<1%)	PANSS Pos. Total	18.83 (6.23)
Asian	7 (3%)	PANSS Neg. Total	17.61 (6.78)
Black	110 (45%)	PANSS Gen. Total	35.08 (9.16)
White	79 (32%)	GAF	33.55 (11.15)
Middle Eastern	1 (<1%)	GF-Role	3.95 (2.20)
Central/South American	7 (3%)	GF-Social	5.09 (1.48)
Multiple Races	37 (15%)	HVLT T-Score	35.91 (8.51)
Refused	4 (2%)	BACS-SC T-Score	31.76 (11.67)
		MSCEIT-ME T-Score	40.44 (12.36)
Latino/Hispanic Ethnicity	46 (19%)		
		Days to FEP treatment service (DUP)	344.37 (321.69)
Born in United States/Puerto Rico	206 (84%)	APS Duration (years)	1.53 (2.09)
Socioeconomic Status		Premorbid Functioning	
Mother Completed College	88 (36%)	PAS Childhood Total	5.35 (3.87)
Private Insurance	80 (33%)	PAS Adolescence Total	8.15 (4.97)
		PAS General Total	15.98 (7.51)
Prior Cannabis Exposure	192 (78%)		
		Educational Attainment	
		Years of Education	12.52 (1.92)
		WRAT Reading Standard Score	99.71 (16.30)
		Cannabis Use	
		DUS Cannabis Score	1.94 (1.04)
		Age at First Cannabis Use	15.67 (2.69)

[1]Time of onset of attenuated psychosis symptoms was determined for 204 participants via retrospective SIPS interview. Other participants reported no APS period preceding psychosis (n = 11) or a date of APS onset could not be estimated (n = 31).

APS = Attenuated Psychosis Syndrome

BACS-SC = Brief Assessment of Cognition in Schizophrenia Symbol Coding

DUS = Drug Use Scale

GAF = SIPS Global Assessment of Functioning Scale

GF = Global Functioning Scale

HVLT = Hopkins Verbal Leaning Test

MSCEIT-ME = Mayer-Salovey-Caruso Emotional Intelligence Test Managing Emotions Subscale

PANSS = Positive and Negative Syndrome Scale for Schizophrenia

PAS = Premorbid Adjustment Scale

WRAT = Wide Range Achievement Test

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Table 2.

Clinical and demographic differences between patients with and without exposure to cannabis

	No Exposure (n = 54)	Cannabis Exposed (n = 192)	Comparison of Means		
	Mean (SD)	Mean (SD)	*t*	*P*	*Cohen's d*
Age at assessment[1]	21.80 (4.16)	22.41 (3.33)	−0.99	.324	−0.17
Years of education	12.32 (2.00)	12.57 (1.90)	−0.85	.398	−0.13
Age at APS onset	19.03 (4.26)	20.02 (3.96)	−1.46	.146	−0.25
Age at psychosis onset[1]	20.60 (4.22)	21.47 (3.33)	−1.40	.166	−0.25
Prodrome duration (years)	1.31 (1.81)	1.59 (2.17)	−0.76	.450	−0.13
DUP (days to FEP treatment)	415.06 (284.46)	324.49 (329.36)	1.84	.067	0.28
Current GAF	34.28 (11.75)	33.34 (11.00)	0.54	.588	0.08
GF-Role	4.06 (2.32)	3.92 (2.17)	0.41	.683	0.06
GF-Social	5.02 (1.46)	5.11 (1.49)	−0.42	.675	−0.07
PANSS positive symptoms	17.93 (5.86)	19.08 (6.32)	−1.20	.231	−0.19
PANSS negative symptoms	18.74 (6.72)	17.30 (6.77)	1.39	.167	0.21
PANSS general symptoms	35.09 (8.15)	35.07 (9.45)	0.01	.989	<0.01
Premorbid adjustment - childhood	5.38 (4.23)	5.35 (3.77)	0.05	.958	0.01
Premorbid adjustment - early adol.	9.02 (5.04)	7.91 (4.93)	1.44	.151	0.22
Premorbid adjustment - general[1]	15.73 (5.97)	16.05 (7.89)	−0.32	.750	−0.04
WRAT Reading standard score	101.27 (16.46)	99.28 (16.27)	0.78	.437	0.12
HVLT T-score	34.09 (8.27)	36.43 (8.52)	−1.77	.078	−0.28
BACS symbol coding T-score[1]	30.28 (13.48)	32.18 (11.12)	−0.94	.352	−0.16
MSCEIT-ME T-score	40.75 (11.64)	40.36 (12.58)	0.20	.843	0.03

[1]Adjusted for unequal variances

APS = Attenuated Psychosis Symptoms

BACS = Brief Assessment of Cognition in Schizophrenia

GAF = Global Assessment of Functioning

GF = Global Functioning

HVLT = Hopkins Verbal Leaning Test

MSCEIT-ME = Mayer-Salovey-Caruso Emotional Intelligence Test Managing Emotions Subscale

PANSS = Positive and Negative Syndrome Scale for Schizophrenia

WRAT = Wide Range Achievement Test

Letters

RESEARCH LETTER

Acute Mental Health Symptoms in Adolescent Marijuana Users

Marijuana use is associated with acute psychotic symptoms,[1] but the prevalence of these symptoms in youth is not known, to our knowledge. We surveyed adolescents presenting for routine medical care to assess whether they had experienced acute psychotic symptoms during or right after marijuana use.

Methods | We analyzed data from a survey of health and substance use that was administered to a convenience sample of youths aged 14 to 18 years presenting for routine care; 1235 patients were approached and 527 consented for a response rate of 42.7%. Youths were enrolled with a waiver of parental consent under the approval of the Boston Children's Hospital Institutional Review Board. Measures included 2 questions about acute psychotic symptoms ("In the past 12 months, how often have you felt anxious or paranoid during or after using marijuana?" and, "In the past 12 months, how often have you seen, felt, or heard things that were not really there [ie, hallucinations] during or after using marijuana?") and standardized questions about symptoms of cannabis use disorder (based on the modified World Mental Health Composite International Diagnostic Interview),[2] anxiety (based on the 2-item Generalized Anxiety Disorder scale),[3] and depression (based on the Patient Health Questionnaire 2)[4] and sociodemographic characteristics. One hundred forty-six respondents who affirmed past-year marijuana use and had complete data for measures of interest were included in the analysis).

Descriptive statistics were used to characterize rates of marijuana-related psychotic symptoms by demographic variables, frequency of use, presence of cannabis use disorder, and symptoms of depression or anxiety. We used χ^2 tests to compare psychotic symptoms with the sociodemographic characteristics of the sample. We used logistic regression adjusted for age, sex, and race/ethnicity to examine associations between having experienced hallucinations or paranoia related to marijuana use and screen scores for depression, anxiety, and cannabis use disorder. We used SAS version 9.4 software (SAS Institute Inc) to perform statistical analysis.

Results | Mean (SD) age of respondents was 16.6 (1.1) years; 104 (71.2%) were female; 112 (76.7%) were of non-Hispanic white race/ethnicity. Overall, 40 respondents (27.4%) reported hallucinations, 49 (33.6%) reported paranoia or anxiety, and 63 (42.9%) reported having at least 1 symptom. Neither hallucinations nor paranoia or anxiety was associated with age, sex, race/ethnicity, general health status, or socioeconomic status. Respondents who met criteria for cannabis use disorder were more likely to report having experienced hallucinations or paranoia. Seventy respondents (47.9%) affirmed "monthly or more" marijuana use during the past year, and this group was more likely to report experiencing hallucinations and paranoia compared with youths who affirmed use "once or twice" in the past year (42 [60.0%] vs 28 [40%]). Respondents with results on mental health screens that were suggestive of depression were more likely to report experiencing paranoia (23 [65.7%] vs 12 [34.3%] of 35 respondents with positive results for depression) (Table).

Table. Demographic Characteristics; Frequency of Cannabis Use; Scores on Depression, Anxiety, and Cannabis Use Disorder Screens; and Associations With Experiencing Marijuana-Related Hallucinations or Paranoia

Cannabis Use/ Mental Health Variable	Total, No. (%) (N = 146)	Hallucinations in Past 12 mo, No. (%)			Paranoia or Anxiety in Past 12 mo, No. (%)		
		Never (n = 106)	Ever (n = 40)	OR (95% CI)[a]	Never (n = 97)	Ever (n = 49)	OR (95% CI)[a]
Cannabis use disorder							
CUD diagnosis	40 (27.4)	21 (52.5)	19 (47.5)	3.76 (1.69-8.34)	19 (47.5)	21 (52.5)	3.15 (1.46-6.78)
No diagnosis	106 (72.6)	85 (80.2)	21 (19.8)	1 [Reference]	78 (73.6)	28 (26.4)	1 [Reference]
Frequency of past-year marijuana use							
Monthly or more	70 (47.9)	42 (60.0)	28 (40.0)	3.81 (1.71-8.50)	37 (52.9)	33 (47.1)	3.30 (1.58-6.89)
Once or twice	76 (52.1)	64 (84.2)	12 (15.8)	1 [Reference]	60 (78.9)	16 (21.1)	1 [Reference]
Anxiety screen							
Positive, score ≥3 on GAD	26 (17.8)	16 (61.5)	10 (38.5)	1.84 (0.74-4.57)	13 (50.0)	13 (50.0)	2.32 (0.96-5.58)
Negative, score <3 on GAD	120 (82.2)	90 (75.0)	30 (25.0)	1 [Reference]	84 (70.0)	36 (30.0)	1 [Reference]
Depression screen							
Positive, score ≥3 on PHQ	35 (24.0)	23 (65.7)	12 (34.3)	1.51 (0.66-3.45)	15 (42.9)	20 (57.1)	3.75 (1.69-8.36)
Negative, score <3 on PHQ	111 (76.0)	83 (74.8)	28 (25.2)	1 [Reference]	82 (73.9)	29 (26.1)	1 [Reference]

Abbreviations: CUD, cannabis use disorder, determined by the modified World Mental Health Composite International Diagnostic Interview[2]; GAD, Generalized Anxiety Scale; OR, odds ratio; PHQ, Patient Health Questionnaire 2.

[a] Odds ratio (95% CI) logistic regression adjusts for age (continuous), sex, and race/ethnicity.

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Discussion | A sizeable proportion of adolescent marijuana users reported experiencing paranoia or anxiety or hallucinations in association with their marijuana use, with rates higher among those who used cannabis more regularly, met criteria for cannabis use disorder, or experienced symptoms of depression. Marijuana-related psychotic symptoms may become more common if rates of regular or heavy marijuana use continue to rise.[5]

The association between marijuana use during adolescence and poor adult outcomes has been well documented, and there is a strong association between its use and the development of mental health problems and psychotic disorders.[6] Marijuana use is also associated with psychotic symptoms related to intoxication. The association between these phenomena is poorly understood. Experiencing acute psychotic symptoms while using marijuana may be a marker of risk for developing a psychotic disorder in the future. Because some adolescents with psychotic disorders report first experiencing symptoms acutely with marijuana use, these experiences may represent prodromal symptoms in some individuals. A future longitudinal study could examine these questions. A limitation of our study was self-report, which is subject to recall and social desirability biases that could lead to underreporting and hence underestimation of the true nature of the phenomenon.

The mental health burden of adolescent marijuana use may be challenging to accurately estimate because adolescents do not always seek treatment for mental health problems. Our findings suggest that experience of marijuana-related acute psychotic symptoms may be considerable.

Sharon Levy, MD, MPH
Elissa R. Weitzman, ScD, MSc

Author Affiliations: Adolescent Substance Use and Addiction Program, Division of Developmental Medicine, Boston Children's Hospital, Harvard Medical School, Boston, Massachusetts (Levy); Division of Adolescent/Young Adult Medicine, Boston Children's Hospital, Harvard Medical School, Boston, Massachusetts (Weitzman).

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Corresponding Author: Sharon Levy, MD, MPH, Division of Adolescent/Young Adult Medicine, Boston Children's Hospital, 300 Longwood Ave, Boston, MA 02115 (sharon.levy@childrens.harvard.edu).

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Concept and design: Both authors.
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Drafting of the manuscript: Both authors.
Critical revision of the manuscript for important intellectual content: Both authors.
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Rates and Predictors of Conversion to Schizophrenia or Bipolar Disorder Following Substance-Induced Psychosis

Marie Stefanie Kejser Starzer, M.D., Merete Nordentoft, Dr.Med.Sc., Carsten Hjorthøj, Ph.D., M.Sc.

Objective: The authors investigated the rates of conversion to schizophrenia and bipolar disorder after a substance-induced psychosis, as well as risk factors for conversion.

Method: All patient information was extracted from the Danish Civil Registration System and the Psychiatric Central Research Register. The study population included all persons who received a diagnosis of substance-induced psychosis between 1994 and 2014 (N=6,788); patients were followed until first occurrence of schizophrenia or bipolar disorder or until death, emigration, or August 2014. The Kaplan-Meier method was used to obtain cumulative probabilities for the conversion from a substance-induced psychosis to schizophrenia or bipolar disorder. Cox proportional hazards regression models were used to calculate hazard ratios for all covariates.

Results: Overall, 32.2% (95% CI=29.7–34.9) of patients with a substance-induced psychosis converted to either bipolar or schizophrenia-spectrum disorders. The highest conversion rate was found for cannabis-induced psychosis, with 47.4% (95% CI=42.7–52.3) converting to either schizophrenia or bipolar disorder. Young age was associated with a higher risk of converting to schizophrenia. Self-harm after a substance-induced psychosis was significantly linked to a higher risk of converting to both schizophrenia and bipolar disorder. Half the cases of conversion to schizophrenia occurred within 3.1 years after a substance-induced psychosis, and half the cases of conversion to bipolar disorder occurred within 4.4 years.

Conclusions: Substance-induced psychosis is strongly associated with the development of severe mental illness, and a long follow-up period is needed to identify the majority of cases.

Am J Psychiatry 2018; 175:343–350; doi: 10.1176/appi.ajp.2017.17020223

The prevalence of substance abuse is higher among persons with mental illness than in the general population (1). The reasons for this are unclear, but many possible links have been proposed. A common hypothesis is that psychiatric patients use substances of abuse as a way of self-medicating. It has also been suggested that the use of cannabis can speed up the process of developing schizophrenia in vulnerable individuals and that there may be a dose-response association (2–5). Less is known about the link between the use of other substances of abuse and the development of schizophrenia or other psychiatric diagnoses.

Some substances themselves can cause psychosis. A substance-induced psychosis is a psychotic state occurring during intoxication or withdrawal and lasting at least 48 hours. New findings suggest that a large number of patients with a substance-induced psychosis later develop chronic psychotic conditions. It appears that cannabis-induced psychosis converts to schizophrenia in up to 50% of cases (6, 7). Because this percentage is high, some studies have set out to examine whether the diagnosis of cannabis-induced psychosis is distinguishable from schizophrenia combined with cannabis use. One study (8) showed that patients with a substance-induced psychosis more often had a family history of substance abuse and were diagnosed at an older age compared with patients with a primary psychosis. Not much is known about how psychoses induced by other substances may predict long-term chronic psychotic illness. Other types of substance-induced psychosis appear to have lower rates of conversion to schizophrenia—around 30% for amphetamines, 24% for hallucinogens, 21% for opioids, and 5% for alcohol (9). Another study showed that 23% of patients with substance-induced psychosis are diagnosed with schizophrenia within 3 years of follow-up (10).

Psychiatric patients who also have a substance abuse problem are often diagnosed later than those with no substance abuse, and consequently treatment is delayed (1). It would be of great interest to identify those at high risk so that treatment could be initiated earlier.

See related features: **Editorial** *by Dr. Ghose (p. 303),* **Clinical Guidance** *(Table of Contents),* **CME course** *(p. 387), and* **AJP Audio** *(online)*

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Testimony on HB639
NH Senate Judiciary Committee
Beth Scaer, Nashua
4/20/2023

Dear Committee Members,

Thank you for taking my testimony.

I am a huge fan of Americans for Prosperity. They truly care about helping marginalized people succeed, like the single mom struggling to pay the rent and the young man with a criminal record looking for work without success.

AFP believes that they can help these less well-off New Hampshire residents by supporting the legalization of recreational marijuana but the truth is that those people they want to help are the ones that will be hurt the worst by it.

From the article "Sociodemographic Characteristics Associated With and Prevalence and Frequency of Cannabis Use Among Adults in the US" published in JAMA, the Journal of the American Medical Association on November 30, 2021:

> In this survey study including 387,157 US adults residing in 21 states conducted in 2016 through 2019, **young, male, Black, and Native American individuals and individuals with low educational attainment and income were more likely to engage in higher frequency cannabis use.**
>
> **Cannabis use, in particular use at least 4 days per week, is associated with neurocognitive deficits and poor educational and other social outcomes,** especially in adolescents and young adults.

When I was handing out flyers to parents dropping off their children at our local elementary school recently in a neighborhood with a high density of impoverished families, I encountered a mom with slurred speech and her car wreaking of marijuana smoke. She was obviously not safe to drive. **It frightens me to think how often she drives her young daughter while she is high.**

From Alex Berenson's 2019 book "Tell Your Children: The Truth About Marijuana, Mental Illness, and Violence."

over →

Dozens of well-designed studies have linked marijuana with psychosis and schizophrenia. Researchers have found marijuana users are much more likely to develop schizophrenia. People with the disease suffer more frequent and severe relapses if they smoke.

Most people will never have a psychotic episode while using marijuana. Some will have temporary breaks from reality. But **an unlucky minority of users will develop full-blown schizophrenia. At this point, doctors have no way of predicting who they will be.**

In "How Weed Became the New OxyContin, published August 30, 2022, Dr. Christine Miller, an expert on psychotic disorders is quoted: **"One out of every 20 daily users can expect to develop schizophrenia if they don't quit."** (bit.ly/NH-HB639)

My brother started smoking marijuana at a young age and developed full-blown schizophrenia.

I haven't had contact with him since before my youngest was born 27 years ago. We searched for him online and found a mug shot from when he was arrested for squatting on someone's property. He can't take care of himself and he has been in and out of homeless shelters for decades.

I brought my young relative to St. Joseph's emergency room in Nashua a few years ago for severe vomiting where she was kept overnight until her condition was stabilized. She was suffering from cannabis hyperemesis syndrome, a serious condition commonly suffered by marijuana users where they vomit uncontrollably. The only cure is to quit.

On my drive to work in Massachusetts I go by multiple billboards promising me improved mental health, relaxation, and happiness if I shop at their cannabis stores. When I'm on my laptop at work I get digital ads from a nearby cannabis shop suggesting I stop in for a purchase. In Boston's Financial District I saw ads on almost every street corner offering to deliver cannabis to my door. Its horrifying. I know from painful, personal experience how much destruction Massachusetts has invited into their state.

Please vote ITL on HB639 to protect our state from the serious harms from the expansion of marijuana sales for recreational use.

Matthew Schelzi

From: Ian Freeman <ian@freetalklive.com>
Sent: Friday, April 21, 2023 3:26 PM
Subject: Please support HB360 - NOT HB639.

Caution! This message was sent from outside your organization.

Hello,

Yesterday your committee heard two bills on ending the insane war on cannabis that has destroyed countless of our neighbors' lives, HB360 and HB639. Please OTP HB360 and ITL HB639.

New Hampshire is the live free or die state. One should not need to ask permission via some government license in order to grow or sell a plant. This insanity needs to end.

Further, we do not need to tax cannabis. Keeping cannabis tax-free, as HB360 does, will ensure all NH's people stay in NH to buy their cannabis, bolstering the NH economy. As will all the cannabis related businesses and jobs that spring up.

HB360 would simply end cannabis prohibition for those 21+ while HB639 creates more unneeded bureaucracy. Please support live free or die, and support HB360.

Thank you,
'an Freeman
Host, "Free Talk Live"
+1-603-513-2449 office
+1-603-892-3805 cell
+1-815-550-1851 FAX

Support FTL via our AMPS Patreon for just $5 a month at http://AMPS.freetalklive.com

Free Talk Live: Talk Radio YOU Can Control!
http://freetalklive.com

Matthew Schelzi

From: Beth Scaer <bscaer@gmail.com>
Sent: Saturday, April 22, 2023 8:16 PM
To: Sharon Carson; William Gannon; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Cc: Cindy Rosenwald; Erica Layon; Keith Murphy; Ross Berry; avardsenate
Subject: Vote ITL on HB639: My testimony from 4/20 with links

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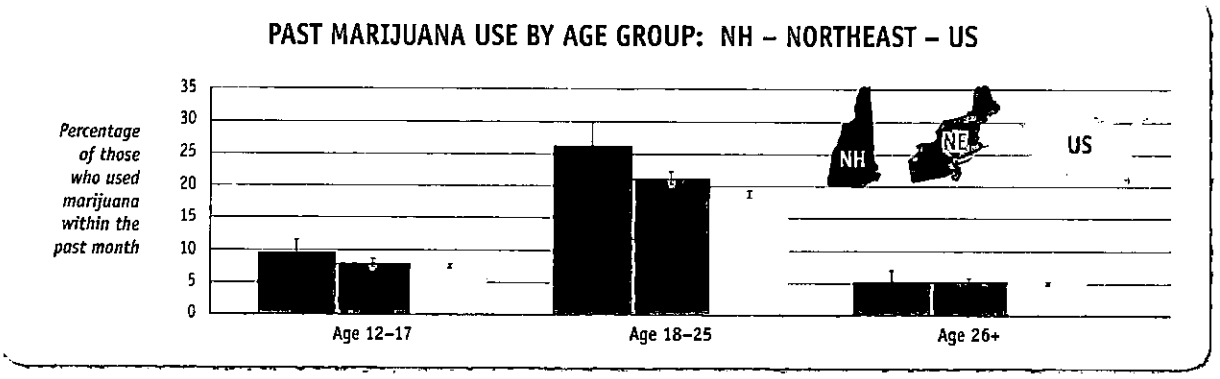
Beth Scaer
Nashua

Collective Action Issue Brief #4:
MARIJUANA USE IN NEW HAMPSHIRE

WHAT WE KNOW

In New Hampshire, adolescent and young adult marijuana use is a significant concern.

Rates of marijuana use among New Hampshire adolescents and young adults are significantly higher compared to the rest of the United States. The figures below show the percentage of New Hampshire youth and young adults who report smoking marijuana regularly (at least once in the past month) compared to averages rates in the northeast and nationally. Although New Hampshire has made significant progress in reducing rates of use, current rates continue to be significantly higher than the national average. In fact, the state rate for 12 to 17 year old use is the ninth highest in the country, and the state rate for 18 to 25 year olds is the fifth highest in the country.

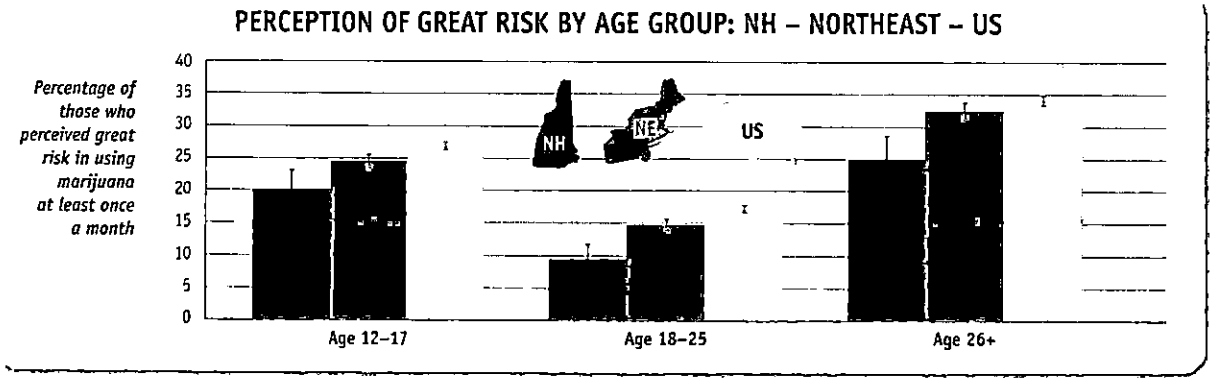


For NSDUH, the Northeast includes: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Source: NSDUH, 2012

WHAT THE RESEARCH SAYS

Research shows that when people don't perceive an action as risky, they are more likely to engage in that activity. Unfortunately, across all age categories, New Hampshire is statistically significantly below national and regional averages with regard to how risky regular marijuana use is perceived to be. This low perception of risk, shown in the graph below, may be one factor contributing to our high rates of marijuana use.



For NSDUH, the Northeast includes: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Source: NSDUH, 2012

WHY IT MATTERS

The research is clear. Adolescence and young adulthood are critical times for the physical development of the brain and central nervous system. Because changes are rapidly occurring within the body, the effects of marijuana can have long term health consequences for adolescents once they reach adulthood.

Contrary to popular myth and misconception, regular marijuana use also carries risk of addiction. National research indicates that of those who try marijuana, 1 in 6 will become addicted.

In state-funded treatment programs, far more 12 to 17 year olds seek treatment for marijuana use than for any other drugs combined, including alcohol. In 2012, of the 12 to 17 year olds who entered state-funded treatment programs, 80% reported they were seeking treatment for marijuana dependence.

PROBLEMS ASSOCIATED WITH MARIJUANA USE

- Impaired judgment and higher risk behavior such as driving under the influence and unprotected sex
- Injuries requiring hospitalization
- Lower cognitive functions, such as poor concentration, attention, memory, and problem-solving skills
- Difficulty with social relationships
- Respiratory problems
- Suicide and depression
- Crime and violence
- Anxiety and psychotic symptoms, especially in new users
- Physical dependence on the drug, including withdrawal symptoms

Also, heavy use before the age of 21 is associated with lower income, lower educational attainment, higher unemployment, and lower levels of satisfaction with life and relationships by age 21.

Research is consistent that the extent of these harmful effects is related to how much and how often a person uses marijuana; therefore, the more use, the more likely and more pronounced these effects are.

As states begin to consider permitting medicinal use of marijuana, there are potential impacts on youth access and use to be considered. As with other substances of abuse, reducing risk factors for youth includes controlling availability to prevent youth access and clearly communicating the risk of use to youth. Clearly communicating the risks associated with marijuana use and preventing unlawful access, particularly youth access to marijuana, are critical components of public health efforts.

Although Synthetic Marijuana and marijuana derived from the cannabis plant are often considered as the same, these substances are completely different, both chemically and in their effects. Despite these differences, Synthetic Marijuana is quickly becoming a major problem in New Hampshire. For more information on Synthetic Marijuana, please see the NH DHHS Bureau of Drug and Alcohol Services Synthetic Marijuana Fact Sheet (www.drugfreenh.org/images/10_Synthetic_Marijuana.pdf).

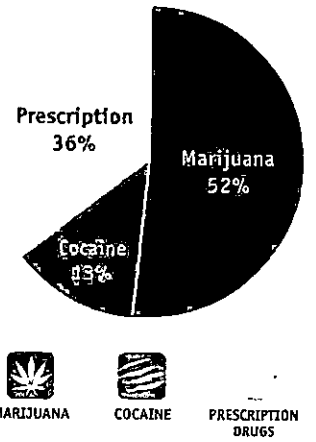
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IMPACTS OF MARIJUANA USE IN NH FATAL CRASHES

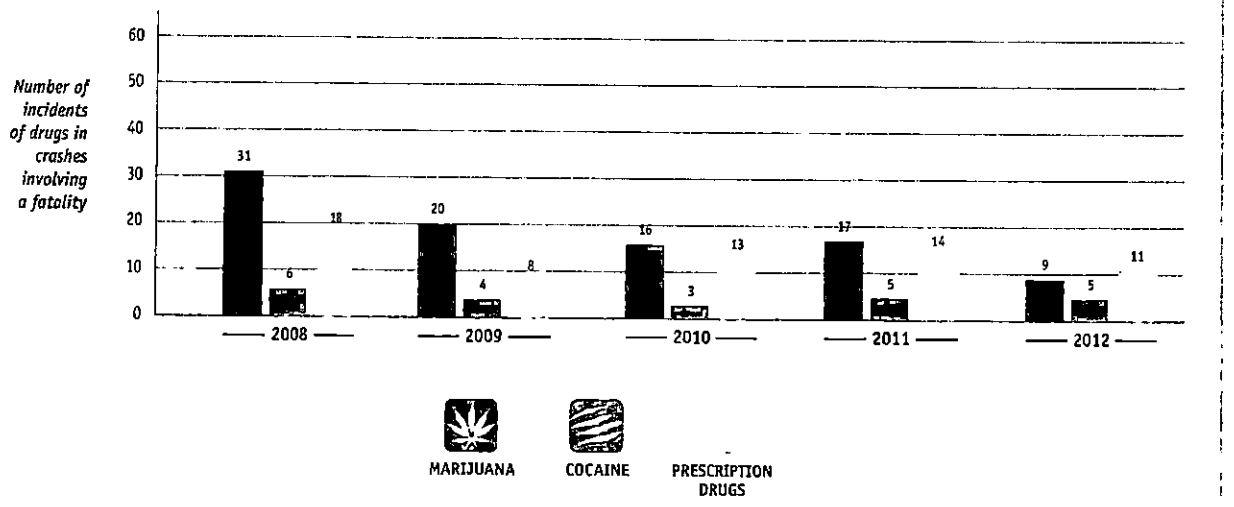
Marijuana use in New Hampshire is also having a negative impact on public safety, specifically related to motor vehicle crashes. In the past two years, 26 fatalities on New Hampshire road ways involved operators who had used marijuana before the crash. Since 2008, marijuana has played a role in 52 percent of drug-related crashes involving a fatality. Of the fatalities involved in the drug-related crashes, three out of four of the victims were the operator, while one out of four were victims through no fault of their own. In 2012, all drug-related motor vehicle fatalities on state roadways were New Hampshire residents.

FATAL NH CAR CRASHES INVOLVING DRUG USE
AVERAGES OVER A FIVE YEAR PERIOD (2008–2012)



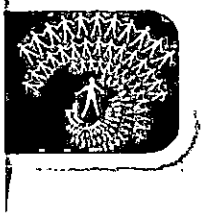
Source: NH Department of Safety

FATAL NH CAR CRASHES INVOLVING DRUG USE 2008–2012



Source: NH Department of Safety

"Since 2008, of all motor vehicle crash fatalities where the operator tested positive drug use, 52% tested positive for the use of marijuana."



WHAT WE CAN DO

BUSINESS

- Workplace policies can send clear messages about negative impacts of marijuana use on work productivity, safety, and physical well being.
- Policies can encourage early and confidential conversations about problems an employee may be experiencing as a result of marijuana misuse.
- Workplace health insurance can include substance abuse treatment for marijuana dependence.
- Workplaces can offer Employee Assistance Programs (EAP) and Wellness programs.

SAFETY & LAW ENFORCEMENT

- Safety and law enforcement can communicate the harm associated with driving under the influence of marijuana.
- Laws in place to prevent and deter marijuana use can be consistently enforced to support community awareness that marijuana use may compromise health and safety.

EDUCATION

- Universities, community colleges and adult education programs can establish ways to identify students who have problems with marijuana and refer them to appropriate intervention or treatment resources.
- Coaches, counselors, medical providers and faculty can talk with students about the impact of smoking marijuana on athletic performance, health and well being, academic performance, and goal attainment.
- Schools can provide both peer and professionally led educational programs and forums to talk about the legal implications and impact of marijuana use on brain development, school achievement, and later life and work satisfaction.
- Health or science curricula can educate students about the physical and psychological impacts of marijuana use.

HEALTH & MEDICAL

- Health and medical professionals in primary care settings can talk with parents, teens, and young adults about the harm associated with marijuana use.
- Health care settings can distribute materials about the harmful impact of marijuana use on physical and mental health.
- Health care settings can establish ways to screen patients for marijuana use and share resources for early intervention or treatment support.

GOVERNMENT

- Local, county and state government, and elected officials in towns and schools can support laws and policies that prevent and deter illicit marijuana use.
- Local, county and state government, and elected officials can help direct resources to preventing marijuana use and to providing treatment and recovery support services.

COMMUNITY & FAMILY SUPPORTS

- Local organizations can provide alternative activities for youth and young adults.
- Community-based organizations can provide educational programs and information about intervention, treatment and recovery support services in the community.
- Community-based organizations can help promote drug-free norms.

LEARN MORE TODAY

WHERE TO FIND OUT MORE

WHAT ELSE CAN WE DO? ***Get informed and stay informed.*** Below are just a few of the many resources available to communities and individuals who want to join in Collective Action for Collective Impact on marijuana use to protect our citizens and our future.

The White House Marijuana Prevention Initiative
nationalalliancefor marijuanaprevention.wordpress.com/

Marijuana Fact Sheet
www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/marijuana_fact_sheet_jw_10-5-10.pdf

Marijuana Policy Information: learnaboutsam.com/

Data on Marijuana Use and Schizophrenia: www.schizophrenia.com/prevention/streetdrugs.html

Youth Marijuana Prevention Campaign
www.cadca.org/resources/detail/coalitions-action-youth-marijuana-prevention-campaign-launched-movie-theater

A PBS Documentary on Marijuana: www.pbs.org/wgbh/pages/frontline/shows/dope/etc/cron.html

Substance abuse policy and advocacy resources and training: www.new-futures.org

Technical Assistance for organizations, schools and businesses interested in prevention and early intervention best practices: www.nhcenterforexcellence.org

NH substance abuse information and educational materials: www.drugfreenh.org

NH Bureau of Drug and Alcohol Services: www.dhhs.state.nh.us/dcbcs/bdas/

For more information about efforts to address marijuana use in New Hampshire, please contact the New Hampshire Bureau of Drug and Alcohol Services at (603) 271-6738 or the New Hampshire Center for Excellence at nhcenterforexcellence@jsi.com or (603) 573-3346.

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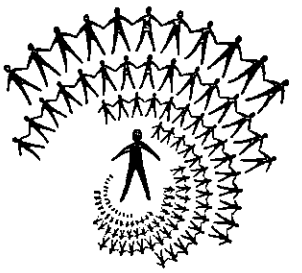
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This issue brief was produced and disseminated by the New Hampshire Bureau of Drug and Alcohol Services, New Hampshire Center for Excellence and the New Hampshire Charitable Foundation. Issue briefs share information from the state plan, Collective Action - Collective Impact: NH's Strategy for Reducing the Misuse of Alcohol and Other Drugs and Promoting Recovery. The plan is available at ***www.dhhs.state.nh.us/dcbcs/bdas/documents/collectiveaction.PDF*** *.*

NHBDAS

Promoting Prevention and Recovery

NEW HAMPSHIRE
CHARITABLE FOUNDATION

PLURIBUS NEWS

TAXES



Sophie QuiSophie Quinton

06:00 AM, Dec 22, 2022

Jars of marijuana line a shelf at The Flower Shop Dispensary in Sioux Falls, S.D. on Oct. 14, 2022. (AP Photo/Stephen Groves)

Marijuana tax collections dropped in several states this year as the cannabis industry struggles with low prices and a drop in demand.

California, Colorado, Nevada, Oregon and Washington all collected less marijuana tax money in fiscal 2022 than the year before, according to a report from the Urban-Brookings Tax Policy Center, a joint venture between two Washington, D.C. think tanks. Most states end their fiscal years on June 30.

That means those states had millions less this past fiscal year to pay for school buildings, drug treatment programs, law enforcement and other services partly funded by taxing pot sales.

Tax revenue may fall even further this fiscal year. Some analysts say the downturn is a reminder that cannabis is an agricultural crop, not a guaranteed moneymaker.

The potential tax revenue "was always oversold as sort of a panacea to state budgets," said Adam Koh, editorial director of Cannabis Benchmarks, a company that tracks wholesale cannabis prices.

Colorado collected about $370 million in marijuana taxes in fiscal 2022, about 13% less than fiscal 2021.

"We're anticipating another pretty sizable decline for [fiscal 2023] as well, close to 16%," said Jeff Stupak, a senior economist with the Legislative Council Staff, a nonpartisan team that advises the Colorado legislature.

Marijuana taxes have become a small but important source of revenue for states with longstanding legal markets. Marijuana excise taxes comprised between 1% and 2% of all revenue collected in many such states in fiscal 2022, according to the Tax Policy Center report.

"It's comparable to revenue from alcohol and cigarette taxes," said Richard Auxier, a senior policy associate in the Urban-Brookings Tax Policy Center. "And in Colorado and Washington, cannabis taxes are larger, now, than alcohol and cigarette taxes."

Marijuana sales are rising in states that legalized recently, such as Michigan and Illinois, Koh said. But sales growth is slowing even in those states, he said.

The recent revenue drop follows a boom early in the COVID pandemic. People rushed to stock up on legal weed when governments ordered businesses to close and people to stay at home.

"There was nothing else to do," said Truman Bradley, executive director of the Marijuana Industry Group, a business association that advocates for Colorado's cannabis industry. "We couldn't go to concerts, we couldn't go to bars, or hotels, or those kinds of things. I do think that prompted higher purchasing of cannabis."

Growers responded to the sales spike by rushing to plant more marijuana. "From what we've heard, a lot of operators in the industry anticipated that that elevated demand would stick around," Koh said.

Favorable weather contributed to a bumper crop in 2021. But by then, demand had ebbed. Growers were left with far more cannabis than people wanted to buy. Prices plummeted — dragging down tax revenue, which is generally based on sales.

The price drops have been staggering. California marijuana flower in October 2020 was selling for a wholesale price of $1,575 per pound, Koh said. It was selling for 60% less last week. Colorado marijuana flower dropped by half over the same period, from $1650 per pound to around $800.

Some shoppers may be cutting down on marijuana purchases as prices rise for other goods and services, Bradley said. "After people put gas in their tank and food on the table and pay for lodging, there's less money to go around."

Legal marijuana's expansion also may be contributing to the downturn. Twenty-one states now allow adults to possess small amounts of the drug.

Legalization in Arizona and New Mexico has depressed sales in southern Colorado, Bradley said, as people no longer need to cross Colorado's southern border to shop at a dispensary.

Stupak said the growth of multi-state cannabis companies may play a role in lowering prices, perhaps as those entities achieve economies of scale.

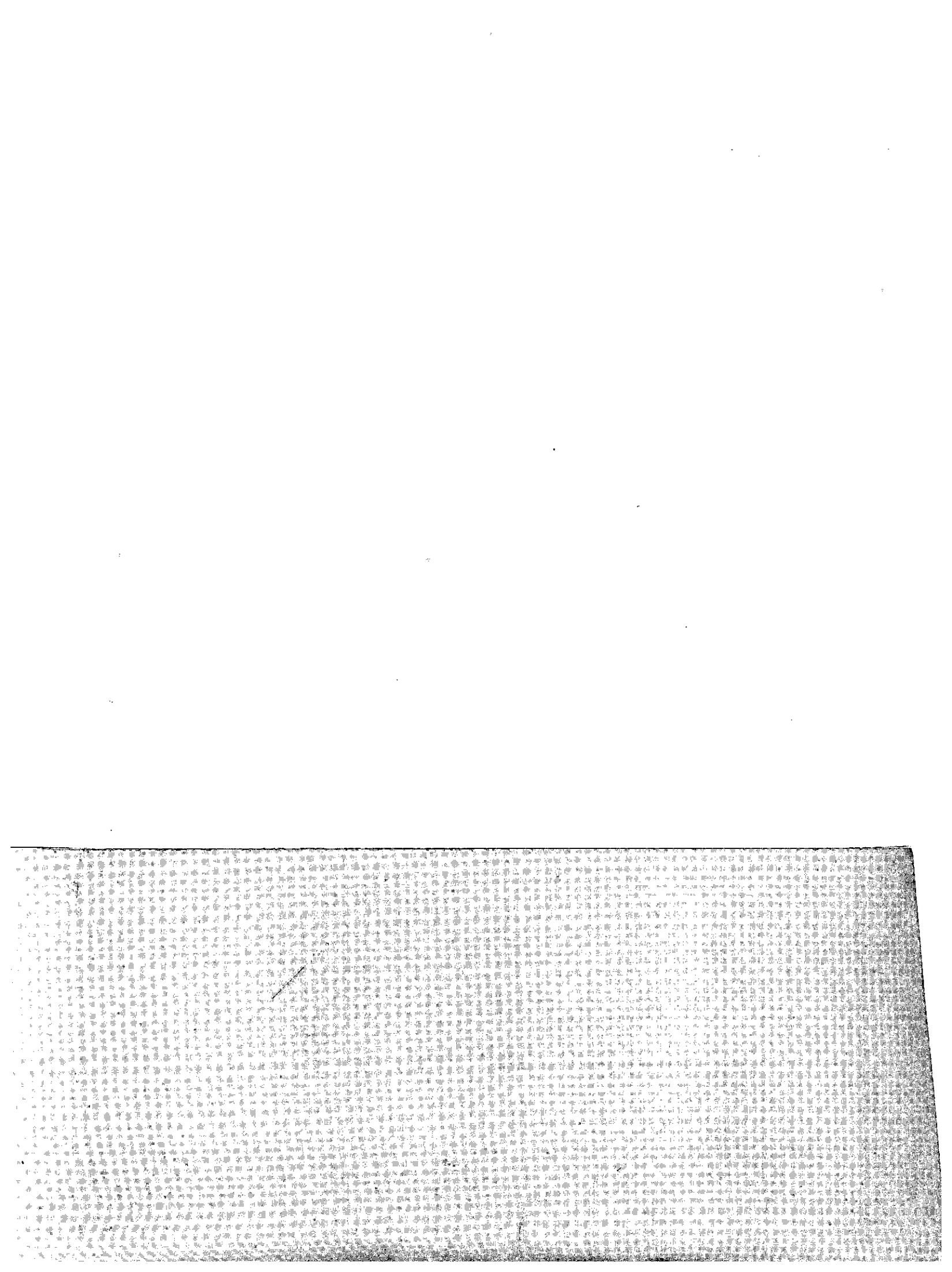
Whatever the cause, cannabis businesses have been hard-hit. "Cultivators have planted less, and unfortunately have had to shut down some facilities," Bradley said. "We've also seen layoffs and several companies have gone out of business."

Stupak's team expects marijuana tax revenue in Colorado to rise again starting in fiscal 2024. He noted that Colorado is still raking in hundreds of millions of dollars a year from legal weed. "There's a lot more money than we ever anticipated coming out of this," he said.

But Koh said his team expects marijuana prices to trend even lower over the long run — particularly if the federal government legalizes sales and eliminates federal laws that make it so expensive to run a cannabis business today.

"With states, I think they need to be realistic about revenue forecasts and what those will look like," Koh said. Colorado's marijuana prices seem low now, he said, but "I think maybe in 10 or 15 years those prices might seem high."


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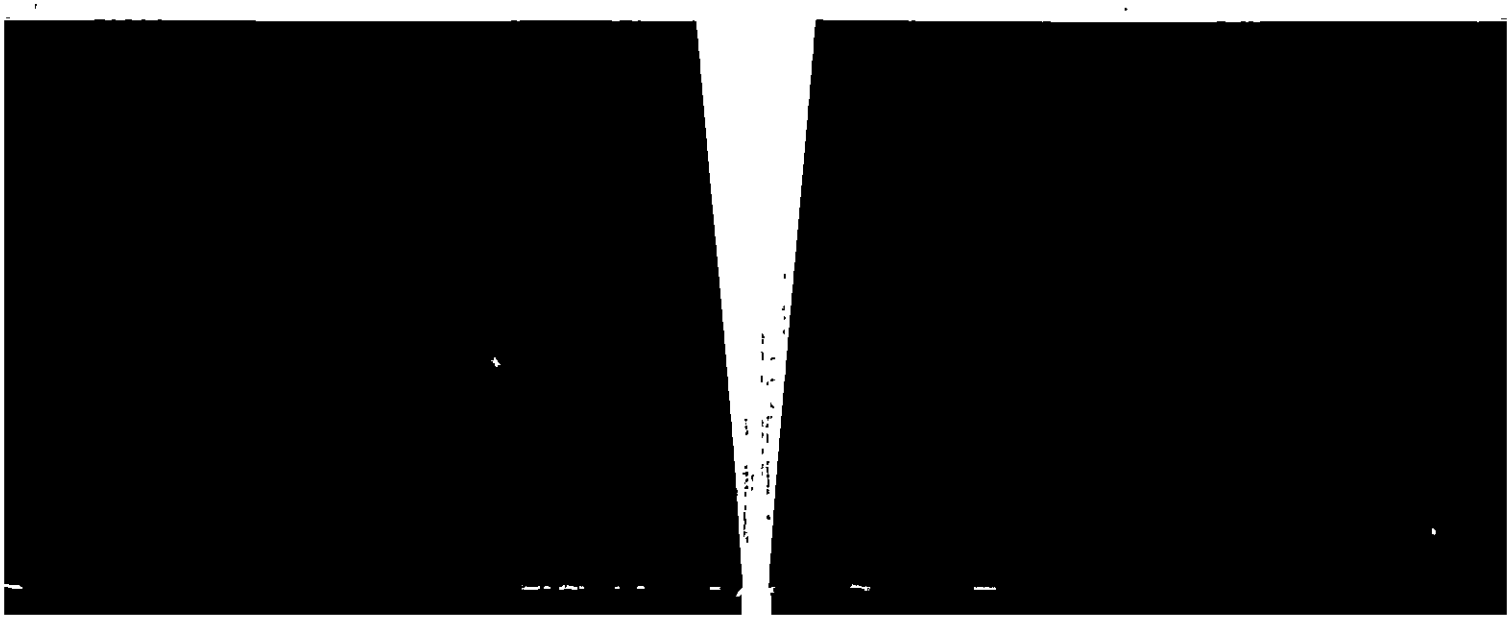
Ten Truths About POT



Americans Against Legalizing Marijuana

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for further info, contact
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The Truth About POT #1

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Marijuana is glamorous to youth.

It harkens back to high school students in San Rafael California who designated 4:20 pm as the time they would gather to smoke weed. Today 420 designates anything marijuana and remains as juvenile as its beginnings.

- **"Legalization" is worse than a Failure**
  - The promises of pro legalizers have not materialized.
  - The black market has increased not decreased - There is no longer a concern about marijuana coming across the border. California and other "legalized" states are the drug cartel for the country.
  - More teen uses in legalized states and they use more often and the pot they use is stronger.
  - Marijuana related arrests don't decrease, and the arrests are disproportionately of black and brown people.
  - Marijuana tax revenues are much lower than promised and don't come close to covering the cost of the harms.
  - Regulations are weak or non-existent

over...

- More law enforcement resources are needed to deal with marijuana after legalization.

- **The harms of pot have increased in "legal" states as the potency and use have increased.**
  - Use and addiction are up.
  - Teen addiction to marijuana addiction is double what it is for alcohol
  - Marijuana related auto collisions and deaths are up.
  - Marijuana is the most common illicit drug identified in impaired drivers.
  - Risk of motor vehicle collision increases 2-fold after smoking marijuana.
  - Teen suicides have increased in states that have legalized.
  - Marijuana related ER admissions are skyrocketing in "legal" states.

- **Now that the drug is "above ground" the influence of drug dealers has been expanded and institutionalized**
  - Major marketing and ad campaigns are commonplace.
  - Unscrupulous investors see the pot industry as another potential .com boom.
  - Pot lobbyists and lawyers are ubiquitous in DC and every city where pot is welcomed.
  - Candidates and elected officials receive millions in donations to do the bidding of the pot industry.
  - Big corporations are taking over the marijuana market.

Robert Cory, considered the founding father of pot legalization in Colorado, says it this way: "I wish I could be proud of what we created, but I'm not. The outcome is shameful, hurts people, and Colorado is not 'safer.'"

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The Truth About POT #2



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Marijuana Is Not A Soft Drug

- Today's marijuana may be one of the most dangerous drugs out there today because of its perceived harmlessness and long staying power.
- If you search for FDA warnings related to sunscreen you will find many informing us how we should use it, even chemicals in sunscreen that may be harmful, etc. These FDA warnings include videos, reports, and radio ads. WHERE ARE SIMILAR WARNINGS FOR THE USE OF THC or THC INFUSED EDIBLES? (about 50% of the marijuana market is now edibles and edibles can reach as high as 99% THC)
- The public warnings the FDA has issued are related to warning CBD companies about potential false medical claims. CBD contains THC, the mind-altering drug in marijuana. Virtually NO ENFORCEMENT HAS OCCURRED against these CBD companies.
- The FDA has jurisdiction over FOOD & DRUGS but has allowed marijuana to be culturally identified as a medicine with NO MEDICAL EVIDENCE. It is not a medicine.

over...

- While Epidiolex is FDA approved for use under strict medical controls for some seizure disorders, the US population at large has been deceived by the pot industry that there is medical efficacy to pot and the FDA has done virtually nothing to dissuade the public from that deceit.

Marijuana is the most dangerous drug in the US

Marijuana is the most dangerous drug in America because it is dangerous and what people think they know about it is wrong. That is unnecessarily creating greater and greater harms, injuries, and deaths. At any drug addiction treatment center, you will find a majority of addicts who started with marijuana.

Besides the physical harms from the drug, marijuana use fuels:

- Educational dropouts
- Suicidality and suicides
- Psychosis and psychotic violence
- Homelessness
- Failure to launch/amotivational syndrome
- Child neglect and abuse
- Depression and isolation
- More

Harvard Brain Biologist Bertha Madras - "It is the most self-delusional drug of all," she said quoting a colleague. "People are not aware of what is happening to them as they use heavily, as they use more and more, as it erodes a sense of well-being."

https://www.tallahassee.com/story/news/politics/2019/10/15/marijuana-not-benign-harvard-expert-tells-florida-lawmakers-amid-recreational-movement/3983763002/

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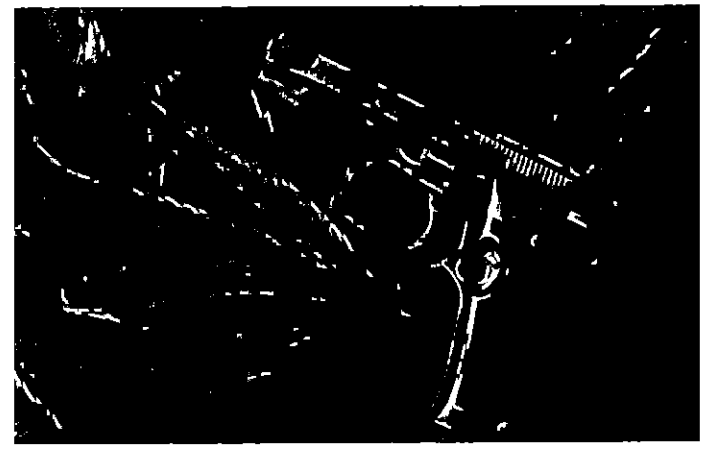
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The Truth About POT #3

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Marijuana, Mental Illness, Violence and Mass Murder

With the dramatic increase in the potency and use of marijuana, senseless violent acts are and will become more and more common. Toxicology reports of recent mass murderers must be released to the public.

More Sources:

- In 2007 the prestigious medical journal Lancet recanted its previous benign view of marijuana, citing studies showing "an increase in the risk of psychosis of about 40 percent."
- A seminal long-term study of 50,465 Swedish army conscripts found those who had tried marijuana by age 18 had 2.4 times the risk of being diagnosed with schizophrenia in the following 15 years than those who had never used the drug. Heavy users were 6.7 times more likely to be admitted to a hospital for schizophrenia.
- Another study, of 1,037 people in New Zealand, found those who used cannabis at ages 15 and 18 had higher rates of psychotic symptoms at age 26 than non-users.
- A 2011 study in the British Medical Journal (BMJ) of 2,000 teenagers found those who smoked marijuana were twice as likely to develop psychosis as those who didn't. Another BMJ study estimated that "13 percent of cases of schizophrenia could be averted if all cannabis use were prevented."

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- In 2014, people who had cannabis use disorder made up about 1.5 percent of Americans. But they accounted for eleven percent of all the psychosis cases in emergency rooms—90,000 cases, 250 a day, triple the number in 2006.
- The National Academy of Medicine found in 2017 that "cannabis use is likely to increase the risk of developing schizophrenia and other psychoses; the higher the use, the greater the risk." Also, that "regular cannabis use is likely to increase the risk for developing a social anxiety disorder."
- Studies show cases in which marijuana led to unnecessary violence, health risks, and, in many cases, both.
- About half of those who attacked others had a history of illicit drug use and/or substance abuse. This abuse, which included alcohol and marijuana, was evidenced by such factors as the attacker receiving treatment for the abuse, suffer legal consequences, or having significant problems in their personal lives stemming from the abuse.

AALM calls on public officials to release the toxicology reports on all mass murderers.

MARIJUANA USERS SHOULD NOT BE ALLOWED TO PURCHASE GUNS OR BE ISSUED GUN PERMITS

"Senseless violence and mass murders are in the news and in the minds of Americans once again. Mental health problems are also considered a potential contributing factor. With the dramatic increase in the potency and use of marijuana, senseless violent acts are and will become more and more common."

- Carla Lowe, President of AALM

"The link between marijuana use and psychosis, depression, and schizophrenia has been known for decades. Yet, the general public is not being informed."

-Scott Chipman, Vice President of AALM

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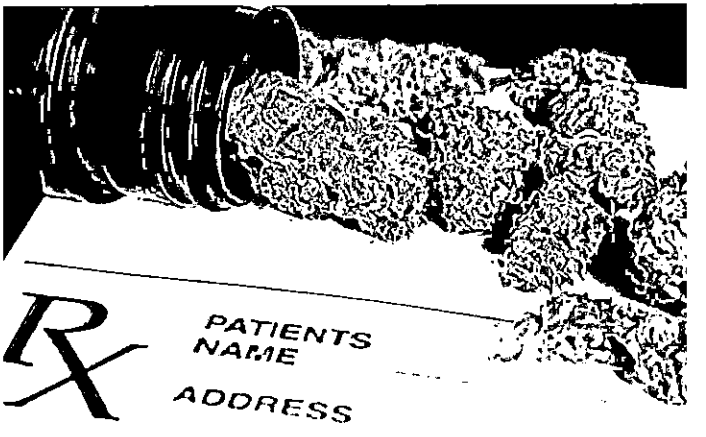
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The Truth About POT #4



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Not Only Is Marijuana Not Medicine, In Fact, It Is Killing People.

"Self Medicating" With Marijuana Is A Rationalization for Drug Use and Is Dangerous. You've heard or read the term a thousand times: "Medical Marijuana".

"A lie told once remains a lie, but a lie told a thousand times becomes the truth."

-JOSEPH GOEBBELS

How Did We Get To The Point Where An Illicit Drug Is Considered Medicine?

THE DEALER'S STRATEGY: First "medicalize", then normalize, then legalize marijuana. Medical marijuana has been a ruse to sucker the public into thinking marijuana is not harmful and even "helpful."

A Brief History of the Lie:

We can thank Ed Rosenthal and Richard Cowan for creating the current public perception of the so-called "medical marijuana" marketplace. In a video filmed many years ago, Rosenthal (former editor of High Times magazine) and Cowan (former director of NORML—the National Organization for the Reform of Marijuana Law) joked about the nationwide "scam" they started. They realized that if they convinced enough people that smoking marijuana was "medicinal", that would be the beginning of a movement toward full legalization.

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"We are trying to get marijuana reclassified medically. If we do that, we'll be using the issue as a red herring to give marijuana a good name."

-Keith Stroup, Marijuana Proponent, Emory University, February 6, 1979

In 1996 the pot industry finally succeeded in playing on the sympathies of California voters for the sick and dying and fooled them into "voting" marijuana into a "medical" status. Prop 215 was the first time a misinformed public voted to identify a substance as a "medicine". To say it was unscientific is an understatement.

The US Surgeon General has stated: "There is no such thing as 'medical marijuana' unless and until it has been approved by the FDA."

Why is Marijuana not medicine? To approve a medicine, the FDA requires five criteria to be fulfilled:

1. The drug's chemistry must be known and reproducible.
2. There must be adequate safety studies.
3. There must be adequate and well-controlled studies proving efficacy.
4. The drug must be accepted by well-qualified experts.
5. Scientific evidence must be widely available.

Marijuana fails to meet any of these five criteria for accepted medical use in the United States. At present, it is listed as a Schedule I drug in the Controlled Substances Act, which is the category for the most dangerous of drugs.

A Few of The Harms:

- Calling marijuana medicine fools the naive into thinking it is not harmful. It can be very harmful.
- Some people aren't accessing the correct medicines because they are using a psychoactive drug.
- Marijuana can induce psychosis and can make it worse.
- The drug interacts with other drugs in unpredictable ways.
- Not only is marijuana not medicine, in fact, it is killing people. A 2016 study in rats found that secondhand exposure to marijuana smoke affected a measure of blood vessel function as much as secondhand tobacco smoke, and the effects lasted longer.

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Pot Profits Adults But the Young Are Harmed Most

We are letting pot profiteers prey on our teens/young adults and they and their families suffer.

Letter from a Mother

Excerpt: "In my son's two-plus years of treatment in three different states (at a cost of $250k), there were only two other young men of color in any of the programs. My son is back in Colorado where he lives independently and works full time in the meat-packing industry. He recently graduated from an alternative high school and plans on attending college in the fall. All the while, he continues to use marijuana concentrates. We are grateful for his progress, yet to this day, we count ourselves as one of the "lucky" families, knowing it could all literally change at any moment. My son is not alone. He is not the exception. Both he and we will have to deal with this for the rest of our lives."

Marijuana is the number one drug found in completed teen suicides in Colorado.

- Completed suicides in Colorado have increased steadily from 2004 to 2018. Marijuana was present in 12.8% of all 14,229 suicides. For all ages, alcohol was the leading cause of drug found on death at 35.5%. However, for ages 10 – 19, marijuana was the leading drug found in 19.8% or 943

over...

completed suicides, surpassing alcohol at 12.8%.

-The Colorado Center for Health and Environmental Data, Department of Public Health and Environment.

- Adolescent suicides in Colorado had 16.1% positive marijuana toxicology. 269 adolescent suicide cases in Colorado were analyzed. Marijuana was found in 16.1% of adolescent suicide cases (age 10-19) compared with 6.9% of adults. Marijuana was found more than alcohol (12.7%) on toxicology results.

-Jamison E, Bui AG, Herndon K, Bol K. Adolescent suicide in Colorado, 2008-2012. 2014 Nov;94:1-8.

Marijuana legalization is child abuse.

Legalization increases youth use. States with legal marijuana have the highest use rates among 12-25 year olds. States without it have the lowest rates.

The brain is not fully developed until the mid to late 20's. Any marijuana use during brain development can have serious and lasting impacts.

Marijuana use can have dramatic negative impacts on children, teens and young adults:

- Youth Marijuana Addiction Rate Double Rate of Alcohol & Other Substance Use Disorders
- Marijuana is the #1 drug for which teens and young adults seek addiction therapy.
- States that have "legalized" have higher teen and young adult use.
- The average age of marijuana introduction in some states is 12 years
- Teen cannabis use lowers IQ, despite claims to the contrary
- Use causes lung damage.
- Use can result in amotivational syndrome (failure to launch).
- Marijuana use increases educational drop out.
- Impacts to reproductive system.
  - Lowers sperm count - can be permanent
  - Use can impact future offspring negatively
  - Increases incidence of testicular cancer.

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The Marijuana Industry is a polluter of soil, water, animals & habitat, people and communities

"On a proportional basis, corporate marijuana is Colorado's worst environmental polluter."

-Founding Father of Legal Marijuana in Colorado, Robert Corey

Soil:

- Poisons, chemicals, and illegal fertilizers are commonly used in both permitted and unpermitted grows. These are left to leach into and accumulate in the soil.
- Planting cannabis for commercial production in remote locations is creating forest fragmentation, stream modification, soil erosion and landslides.

Water:

- To kill bugs, growers soak the plants in chemicals, pesticides, herbicides, and fertilizers. The toxic carcinogens are ingested by the consumer or run off directly into scarce water supplies. (Robert Corey)
- Fertilizers with high nitrates are of particular concern as nitrate loading contributes to cyanobacteria which kill fish and animals.
- The pesticides and poisons used to grow marijuana are leeching into the soil and in turn the watersheds that serve

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literally millions of people, including the central valley and San Francisco Bay Area. The State Water Resource Board has indicated they don't test for these toxins, and don't have adequate resources to expand their operations.

- Marijuana plants consume 6 to 9 gallons of water per day during the 5-month growing season. There are over 50,000 outdoor cultivation sites, with growers depleting streams and water tables. The average number of plants grown at each site is not determined, but taking a range of 100 to 1,000 plants, the water consumption would range from 4.5 to 45 billion gallons a year. California is already in drought conditions while the illicit marijuana industry is sucking the state dry.

Animals and habitat:

- Marijuana cultivation in California and other states has caused great harm to our wildlife, including endangered species such as the Spotted Owl, Pacific Fisher and Humboldt Marten and potentially irreparable damage to salmon and steelhead populations.
- Use of the banned pesticide Carbofuran, so toxic that 1/8th of a teaspoon can kill a 300 lb. bear, has been found at 70% of the grow sites not licensed by the state.
- Diversions of streams for marijuana cultivation effectively dewaters all downstream habitat displacing or killing any water dependent species downstream.

People:

- Insecticides, fertilizers, etc. not intended for food crops are often used during the growing process. These impurities are found and accumulated in marijuana products. Thousands (if not millions) of marijuana users are poisoning themselves unknowingly.
- Research from February 2017 revealed that 93% of marijuana produced in California was laden with dangerous pesticides, yet neither the state nor federal government acted to stop the distribution. This is a threat to health and safety of Americans throughout the US as, according to State and marijuana industry sources, California supplies 60 to 70% of the entire US black market.

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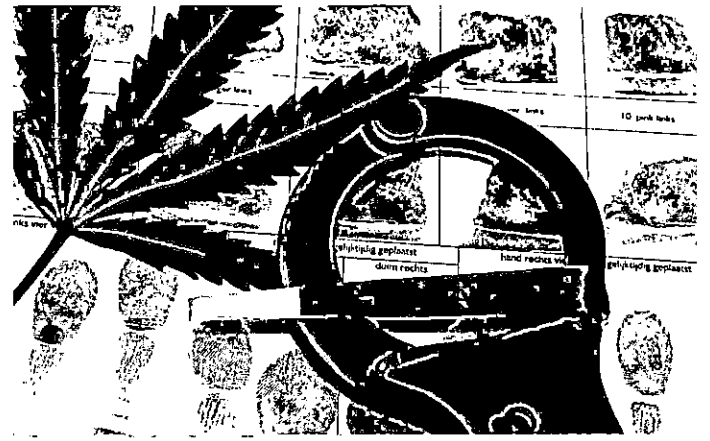
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The Truth About POT #7

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The Myth of Mass Marijuana Incarceration

Legalization Has Led to More Incarceration and Harms People of Color Most

The Pot Industry Strategy:

- The marijuana lobby promotes a false narrative that many thousands of Blacks or Hispanics in the United States are in prison for small amounts of marijuana.
- This false narrative is used to advocate for marijuana legalization claiming that Blacks and Hispanics are disproportionately incarcerated for marijuana offenses.
- Legalizers claim that if marijuana were legal the injustice would not occur and argue that in the interest of "social justice" we should legalize marijuana.
- "Social justice" provides marijuana drug dealers political cover to sell a dangerous intoxicant in minority communities.

THERE IS A FALSE NARRATIVE THAT MARIJUANA LEGALIZATION CREATES SOCIAL JUSTICE FOR BLACK AND HISPANIC AMERICANS

The pot incarceration facts:

- The prisons are not overcrowded with petty marijuana offenders. Mass numbers of Blacks and Hispanic are not going to prison for just having personal amounts of marijuana such as a few joints.

over...

- In all state correctional institutions, only 3.4 percent of prisoners were in jail for all types of drug possession as of Dec. 31, 2015, according to the Justice Department.
- Only 92 people in 2017 were sentenced for marijuana possession in the federal system out of a total of nearly 20,000 drug convictions, according to the U.S. Sentencing Commission. That is one-half of 1 percent.
- Fordham University Professor John Pfaff, who has closely studied the data, concluded the number in prison for marijuana possession could be as low as 0.1 percent.

The marijuana lobby tries to get the public to believe that all inmates convicted for marijuana possession were only personal users and not involved in trafficking or violent crimes.

A MORE ACCURATE VIEW

- Those in prison with marijuana charges have been found guilty of more than simple possession of a few joints.
- They were charged with drug trafficking, or for marijuana possession along with other offenses such as assault or robbery.
- They may have entered a guilty plea to a lesser marijuana charge down from a more serious charge.

Violent crime is what drives incarceration rates

Jason Riley, Wall Street Journal editorial board member, in his article, "Legalizing Pot Is a Bad Way to Promote Racial Equality," points out that:

"Violent offences, not drug offences, drive incarceration rates, and blacks commit violent crimes at seven to 10 times the rate whites do," Riley says. "Data from 2015, the most recent available, show that about 53 percent of people in state prisons (which house nearly 90 percent of the nation's inmates) were imprisoned for violent crimes, 19 percent for property crimes, and just 16 percent for drug crimes."

Marijuana incarceration has been a red herring to fool officials and the public to support a for-profit industry that preys on youth at the expense of public health and safety.

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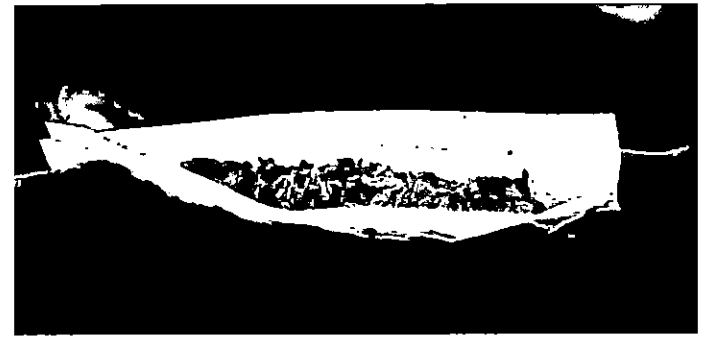
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The Truth About POT #8

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Marijuana Legalization as a Tool for Social Justice is Social Abuse.

Proponents of legalizing marijuana suggest that because minority communities have had a historically disproportionate number of arrests for drugs including marijuana, that they should also be permitted for a disproportionate amount of marijuana commercial drug dealers. As if this is some kind of blessing that can be bestowed by a benevolent overseer, some city and state governments are falling all over themselves to assist people of color get permits and even financial subsidies to become the new approved and improved drug dealer in their communities.

This incredibly misguided proposal is based on several false facts and narratives:

False Fact 1: Marijuana legalization reduces the number of arrests of minorities. On the contrary, marijuana legalization has increased arrests of minorities

- Black people now make up a larger percentage of those arrested by the LAPD for marijuana offenses than before 2018
- As adults legally smoke pot in Colorado, more minority kids are arrested for it.

False Fact 2: That legalization reduces youth access and use.

- Legalization makes marijuana more attractive to youth and reduces their perception of potential harm from using the drug.
- Legalization expands the market and the advertising of the drug

over...

- Pot drug dealers target youth and young adults. A young user is more likely to become an addict and use for decades or the rest of their lives.

False Fact 3: That marijuana is not harmful. Elected officials often know nothing of the harms of marijuana even while promoting policies that expand and support marijuana drug dealers. Marijuana is a very dangerous drug.

- It is addicting
- Use can bring on a psychotic break, psychosis and violence
- Using negatively impacts the respiratory system
- Use impairs the brain and lowers IQ
- Using negatively impacts the reproductive system and offspring
- Use often leads to using other more deadly drugs

False Fact 4: That a local marijuana industry will provide an improved economy for the area.

- Tax revenues promised don't materialize
- The bureaucracy related to legalizing marijuana sucks up much of the tax revenue
- The cost of the direct harms of the "legal" marijuana market are over 4.5 times the revenue.

False Fact 5: That a marijuana black market will be seriously reduced as a result of creating a "permitted" and regulated industry.

- Black markets actually increase after legalization as the "permitted" marketing and appearance of general approval of the drug attracts more users and more sellers.
- Often marijuana drug dealers with "permits" will run a separate black market business as well.
- Just like liquor stores, poor minority communities are targeted by the pot industry.
- Crime increases in communities that host pot businesses.
- With an active and very profitable marijuana drug industry in place, local politicians are easily swayed with financial "donations" to protect, expand and support the pot industry.

No amount of "legalizing" and "regulating" marijuana will provide the type of "social justice" poor minority communities want and need.

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The Truth About POT #9

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Legalizing Marijuana Institutionalizes the Nefarious Influence of Drug Dealers

When marijuana is legalized, the industry has full access to a capitalistic system of industrial production, million-dollar marketing & advertising firms, government departments & agencies, and elected officials. That access allows the pot industry to use its billions to influence individuals, communities, cities, states, and the federal government to profit off of selling drugs that cause harm and misery.

Pot and Political Corruption - Cannabis Cronyism

What else explains the rapid march towards legalization by both Democrats and Republicans? For two parties that can't even agree on the time of day, how does pot become the ONE ISSUE that unites them?

"When organized crime victimizes individuals, communities and cities it is considered abhorrent and criminal. But when elected officials do the same (for the same reasons - money and power) it is considered a part of their 'public service.' Who knew there was corruption associated with the marijuana industry and government officials? Everyone. It is about time someone documented it and laid it out plainly for all to see."

-Scott Chipman, Vice President of AALM

The Government Accountability Institute (GAI) published a "Cannabis Croynism" investigation detailing potential

over...

political corruption surrounding the $21 billion marijuana industry, including conflicts of interest involving former Rep. John Boehner (R-OH), Speaker of the House Nancy Pelosi (D-CA), Gov. Andrew Cuomo (D-NY) and others.

The 75-page report is well documented and should be used to call out the motives of politicians who have elevated the legalization of pot to one of the nation's highest priorities. The pot industry has become a major political player pushing elected officials to prioritize pot profits and pot industry donations over public health, safety, and science.

The timing is important as Congress and many additional states are sprinting towards the edge of a public health and safety abyss like lemmings. Only the government lemmings actually benefit while consigning the death and injuries to young people, the mentally ill, their families, and the innocent - children of pot users, victims of psychotic violence, and crash victims.

And while most cannabis-related regulatory and legislative action is happening at the state level, some national-level political figures have leveraged their positions to make money from cannabis legalization.

For example, in 2017, Paul Pelosi Jr., the son of House Speaker Nancy Pelosi, was named Chairman of the Board of Directors of Freedom Leaf, Inc., a consulting firm advising the budding marijuana industry. The following year, the company entered the CBD distribution business, while Pelosi purchased more than $100,000 in company stock. House speaker Nancy Pelosi recently defended a provision of the Democratic coronavirus relief bill tied to marijuana on, calling it "a therapy." "I don't agree with you that cannabis is not related to this," Pelosi said during a press briefing, according to The Hill. "This is a therapy that has proven successful." The science indicates that pot use increases the risk of contracting COVID-19, impairs the lungs, and pot users who contract the virus have more serious COVID-19 cases.

"For decades the science has pointed plainly to the serious harms of this drug. That science has largely been ignored by the media and elected officials. It is clear pro-pot officials are ignoring the science for personal and political financial gain and power."

-Carla Lowe, President of AALM

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The Truth About POT #10



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Legalization Increases DUI, Poisonings, Workplace Injuries and More

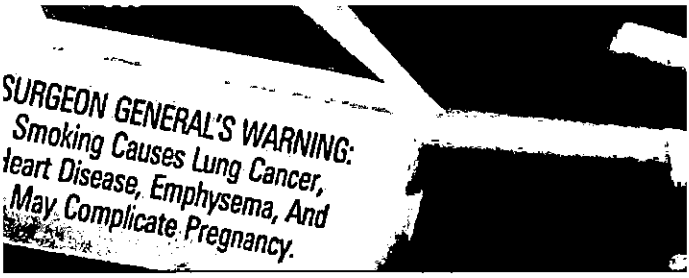
Most pro-pot advocates suggest we treat marijuana like alcohol or tobacco. In most ways, Pot isn't even being treated as strictly as alcohol or tobacco.

- Alcohol has per se limit. In many states including California and Colorado, that limit is .08 BAC (blood alcohol concentration) or more within two hours of driving, which is typically proven through a blood or breath test. Marijuana impairment is just as, if not more, serious than alcohol impairment yet we have no per se limit and no roadside tests are being deployed.
- In most states you must be at least 21 to buy alcohol, yet, with "medical" loopholes states that have "legalized" marijuana allow pot sales to those only 18 years old.
- Tobacco harms are well known, messaged publicly, and even labeled on each product. The harms of marijuana are much more serious and immediate, and we have virtually no public messaging and no labeling. Even though marijuana is a known carcinogen, warnings of that fact are not required.

Why doesn't legal marijuana come with warning labels?

The federal Food, Drug, and Cosmetic Act requires all drugs to be shown safe and effective before being marketed. Marijuana has been shown to be neither safe nor effective but has been proven to be unsafe and injurious.

over...



FAILURE TO WARN IN THE SALE OF MARIJUANA IS WILLFUL NEGLIGENCE

There are many risks from marijuana use that justify warnings. These should include warnings about:

- Intoxication (including dysphoria)
- Anxiety (including panic attacks)
- Hallucinations
- Psychotic-like symptoms
- Somnolence
- Confusion
- Psychomotor impairment
- Cognitive impairment
- Dizziness
- Orthostatic hypotension
- Dry mouth
- Tachycardia

Based upon the conclusions of the most up-to-date research and analysis, a warning about the health dangers of marijuana might look like this:

WARNING: Using cannabis can lead to the development of schizophrenia, other psychoses and other mental-health problems. Cannabis can cause hallucinations, delusions, and panic attacks. Cannabis can cause an increase in suicide ideation and suicide attempts. Smoking cannabis can worsen respiratory infections and bronchitis episodes. Using cannabis can lead to an increased risk of motor vehicle crashes. Maternal cannabis use could disrupt brain development, cause premature birth, and is associated with the lower birth weight of babies.

Join the National Register of
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858-201-5127
info@AALM.info
PO Box 158
Carmichael, CA 95609.

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MARIJUANA: M N M D T

We advocate for No Use of Illegal Drugs and No Illegal Use of Legal Drugs

Gateway to Other Drugs

- Marijuana acts like a powerful neurotransmitter, and works on the same superfamily of neural receptors as heroin.[2]
- Marijuana primes the brain to seek stronger drugs.[2]
- Marijuana users are more likely than non-users to use heroin and abuse pharmaceutical opioids.[14]



Marijuana and the Brain[13]

- Causes and exacerbates: **Addiction, Depression, Psychosis, Schizophrenia, Hallucinations**
- Psychotic breaks / Violent acts / Anxiety
- Loss of memory, perception, motor skills
- Mental degeneration

Drugged Driving

- Driving tests show marijuana impairs reaction times, divided-attention tasks, lane-position variability (weaving), peripheral vision, cognitive function & coordination.[1]
- **1 of every 8 traffic fatalities** in Colorado are marijuana related (+32% increase).[10]
- Marijuana driving deaths doubled in one year after legalization in Washington State.[11]
- For every 1 marijuana-user death, .7 innocents die (pedestrians, bicyclists, passengers, etc.)[5]
- Combining marijuana with alcohol increases impairment up to 8 times.[1]



Think Marijuana is harmless? You don't know POT!

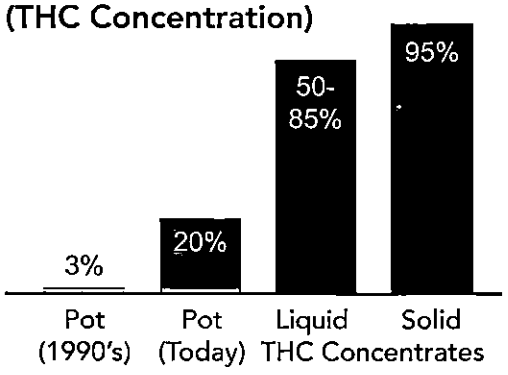
POTENCY:

Marijuana (a.k.a. Cannabis) today is

10-40x stronger than 20 years ago

THC (the mind-altering chemical in marijuana that gets a user high) is a hallucinogenic drug. It is stored in fat tissue and is slowly released back into the blood stream keeping THC in the body for many days, even weeks after the pot is used. This THC continues to negatively affect memory and emotional processing, organs and bodily systems.[3]

TETRAHYDROCANNABINOL
(THC Concentration)



Teen Use/Users



- Increases dramatically wherever marijuana is legalized.[12, 17]
- Causes irreversible IQ loss up to 8 points and higher likelihood of Amotivational Syndrome.[8]
- **1 in 6 teens who try marijuana will become addicted.**[7]
- Heavy users are less likely to graduate.[9]
- **7x increase in suicide attempts.**[9]
- Big Marijuana's goal: teen users today become lifetime consumers.
- **"No amount of marijuana is safe for adolescents."** - Surgeon General (2019)[15]
- **Yet,** vaping and edibles are a favorite way for youth to use.



Fetal Risk

- The Surgeon General[15] and FDA[16] strongly advise against marijuana use during breastfeeding and pregnancy, because THC gets stored in milkfat and transmitted to the baby.
- THC also crosses the placental and blood/brain barrier, affecting the baby in utero - making it more susceptible to:
  - Lower birth weight - Addiction later in life - Birth defects & cancers
  - Problem solving, attention and learning difficulties later in life[4]
- Studies show genetic changes in offspring of heavy users.[6]

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Americans Against Legalizing Marijuana

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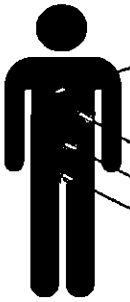
SOURCES: 1 - R Hartman, M Huestis; Cannabis Effects on Driving Skills; Clin Chem 2013. 2 - Dr. Forest Tennent and NIDA. 3 - R Holmes MD, Florida Alliance for Drug Endangered Children - "Health Consequences of Using MJ: Effects on Infants, Children and Young Adults" 4 - E. Fride, J Neuroendocrinol. 2008; 20:75-81 & EC Blume - UNC, Cancer Causes Control. 2006 June 17, (5):663-9. 5 - Fatality Analysis Reporting System, 2014 & 2015, National Highway Safety Transportation Administration. 6 - E Sassenrath, UC Davis Primate Research Ctr and Neuropsychopharmacology. 2014 May 39 (6): 1315-23. 7 - NIDA, "The Science of Drug Abuse and Addiction", by Dr. Nora Volkow referencing Monitoring the Future Study, 2010. 8 - Dr. M. Seal, Melbourne University, APP article, "MJ causes brain damage", August 2012. 9 - E Silins, et al 2014, "Young Adult Sequelae of Adolescent Cannabis Use - an Integrative Analysis" Arendt, et al 2006; Kvitland et al 2016; Clark et al 2014. 10 - Rocky Mountain HIDTA, 2015. 11 - AAA "Driving under the in Influence" Foundation for Traffic Study, May 2016. 12 - US Dept Health & Human Services - SAMSHA 13 - Dr. B Madras, Professor of Psychobiology, Dept of Psychiatry, Harvard School NIDA 14 - "Cannabis Use and Risk of Prescription Opioid Use Disorder in the US" Olfson, Wall, Liu, Blanco, September 2017. 15 - VADM Jerome Adams, Surgeon General - August 29, 2019. 16 - www.fda.gov; Nora Volkow NIDA. 17 - Monitoring the Future 2017-2019

5/14/20





Physical Health Impacts



LUNGS: Smoke from marijuana contains 4-5x the toxins, irritants & carcinogens as tobacco smoke; 20 times more ammonia. [9]

Increases likelihood of **HEART ATTACK** [9]

IMMUNE SYSTEM is weakened [24]

Negatively impacts **REPRODUCTIVE SYSTEM** [6]

DEATH RATE 4x higher than non-users. [13]

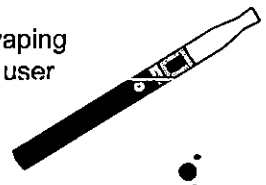
Crime



- **64.3%** of men and **66.1%** of women inmates are addicted to marijuana, other drugs and/or alcohol.[4]
- Marijuana is strongly linked to violent crime.[19]
- **Guns** are common at both large and home cultivation (grow) sites.[23]

Vaping

- Liquid THC concentrate heated in "vaping" devices (aka e-cigarettes) creates a cancer-causing aerosol with little smell.
- A majority of 2019 lung injuries and vaping-related deaths (EVALI) involved THC.[18]
- THC compromises the immune system;[24] vaping marijuana can hurt the lungs; both make a user more vulnerable to COVID-19.[22]



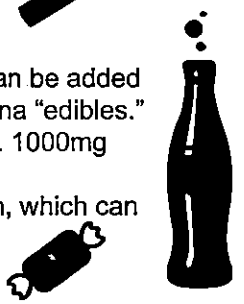
Butane Hash Oil (BHO)



- Increases THC potency to 90+%[11]
- Causes severe "high."
- As dangerous to make and consume as meth.
- Easily causes **explosions and fires** in neighborhoods where cooked.
- AKA *dabs*, *wax*, *budder*, *shatter*, and *solid THC concentrate*.

Edibles

- Liquid and solid THC concentrates can be added to any food or drink, creating marijuana "edibles."
- Potency can be extremely strong, i.e. 1000mg THC/cookie.
- Edibles take longer to produce a high, which can lead to over consumption and THC overdose/psychosis.[19]



Marijuana is Big Money

(but not for the community)



- One plant can bring $2,000 to $4,000 annually to a grower/distributor.
- **Black Markets still thrive after legalization.**[8]
- Tax revenues from pot sales do NOT cover **increased** crime, health care or addiction services. Revenues are projected to be less than .003% of total CA state tax revenue.[2]
- Cost of law enforcement increases, not decreases with legalization.[16]
- CA already has 50,000 illegal cultivation sites that supply 60% of marijuana to the US.[3]

Marijuana is NOT Earth-Friendly [10]



- 1 plant uses 6 gallons of water per day.
- Streams diverted to grow sites kill plants & animals downstream.
- Poisons and illegal fertilizers contaminate streams and forests.[15]
- These contaminate marijuana products as well.
- Carbofuron is illegal but commonly used at grow sites - 1/8 teaspoon can kill a 300 lb. bear.[15]

Is Marijuana Really Medicine?

"First, Do No Harm"
Marijuana is harmful



The Federal Food and Drug Administration confirms that whole plant marijuana and THC concentrates are NOT medicine.

- Components may have medicinal value, i.e. CBD (Cannabidol).[5]
- To protect the public, the FDA testing and approval process must be used to determine THC & CBD drug safety, dosing efficacy, side effects, potency, duration, interactions, etc.
- Pot shop "baristas" – acting like medical professionals – recommending a psychoactive drug (THC) make medical conditions worse (e.g. PTSD, pediatric seizures, glaucoma and even pain).[14]
- Any business selling CBD (unapproved by FDA) put users at great risk.

Marijuana Industry Liability

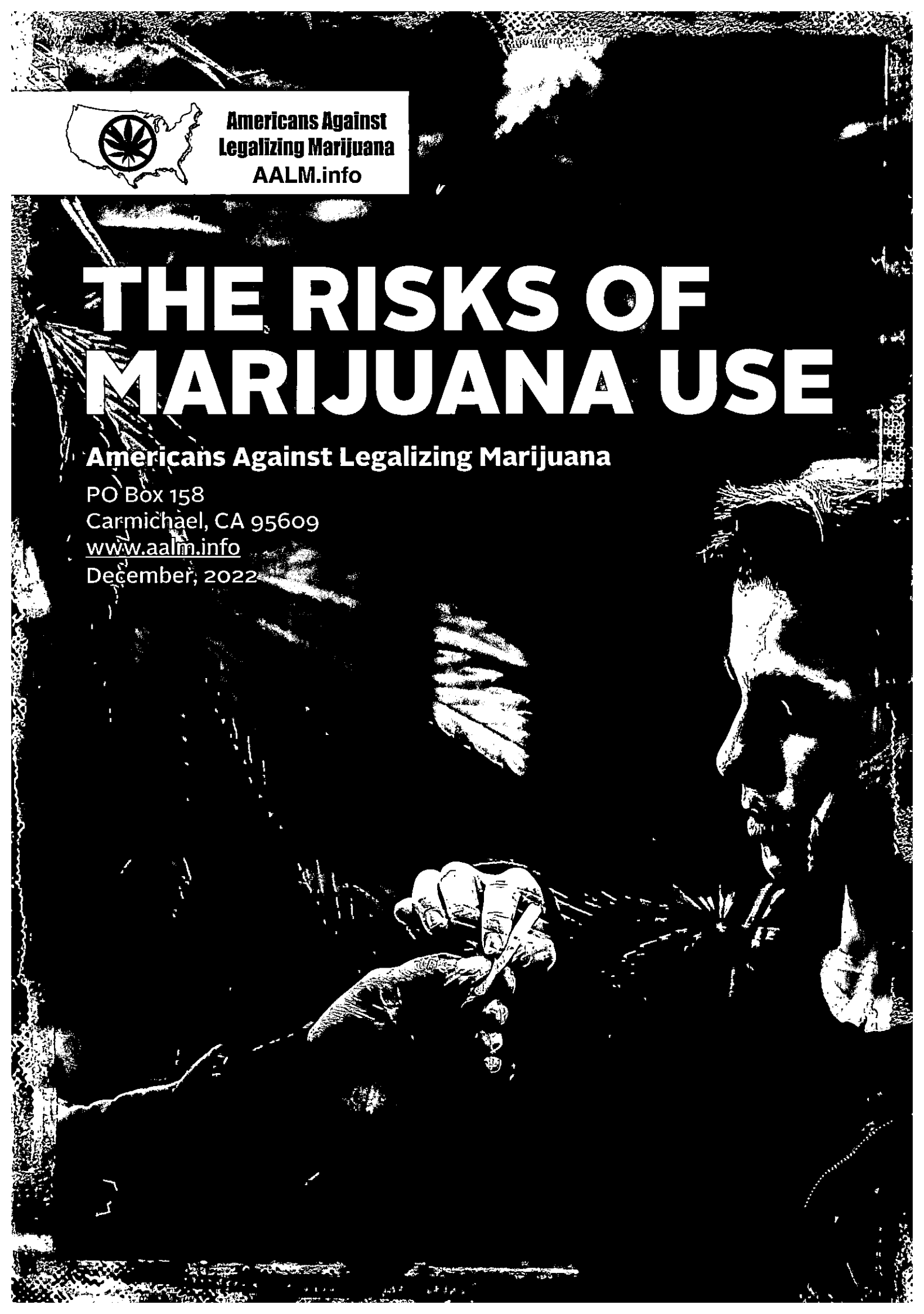
- Marijuana businesses can be sued for contamination, environmental damage, and harming unborn children.
- Marijuana users can be sued for causing car crashes.
- Marijuana as medicine can be medical malpractice.[20]

US MEDICAL ORGANIZATIONS OPPOSE MARIJUANA USE [14]

American Medical Association • American Cancer Society • American Epilepsy Society
American Academy of Pediatrics • American M.S. Society • National Eye Institute
American Lung Association - and others

Sources 2 [illegible]

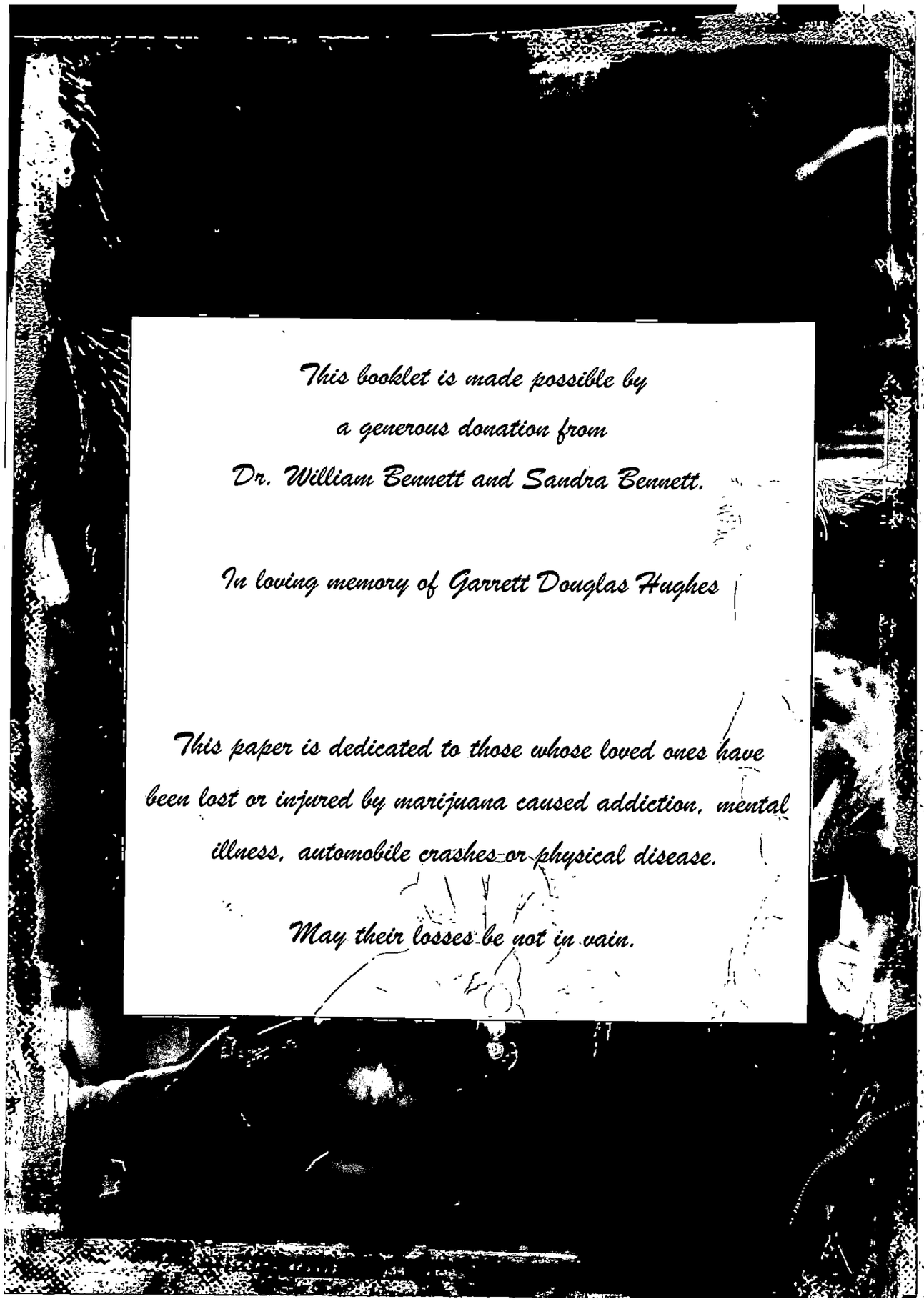
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THE RISKS OF MARIJUANA USE

Americans Against Legalizing Marijuana
PO Box 158
Carmichael, CA 95609
www.aalm.info
December, 2022



This booklet is made possible by

a generous donation from

Dr. William Bennett and Sandra Bennett.

In loving memory of Garrett Douglas Hughes

This paper is dedicated to those whose loved ones have been lost or injured by marijuana caused addiction, mental illness, automobile crashes or physical disease.

May their losses be not in vain.

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December, 2022 edition

Americans Against Legalizing Marijuana is an all volunteer IRS approved non-profit 501(c)(3) dedicated to providing information on the harms of marijuana to individuals and our Country based on the premise of

No Use of Any Illegal Drug and No Illegal Use of Legal Drugs

MARIJUANA IS A DANGEROUS DRUG: HERE IS THE SCIENCE

Compared to years past, marijuana and the products derived from marijuana, have much higher THC (Tetrahydrocannabinol) content. THC is the substance in marijuana that is primarily responsible for the psycho-affective effects on a person. The marijuana of today is highly potent, addictive, and the negative effects can be long-acting. Marijuana is classified as a hallucinogenic drug under federal law.

Even though marijuana production, possession, and distribution are illegal under the federal Controlled Substances Act and the federal Food and Drug Administration medicine and food laws, some states have "legalized" marijuana and/or cannabidiol (CBD) under state law due to lobbying by the marijuana industry. However, producing and selling marijuana is still illegal under federal law.[1]

Marijuana and other cannabis products are inherently dangerous substances and even with warnings and "regulation" it is not safe to use or sell or distribute them. The sellers and distributors of these products should be civilly liable for any damages. This includes "medical" marijuana care providers.

This paper discusses the many harms caused by marijuana use that are amply documented by science. The marijuana industry is using the playbook of the tobacco and opiate industries in manipulating public opinion. For over 20 years, the marijuana industry has falsely and fraudulently denied:

1. that marijuana use causes mental illness, birth defects, addiction, violence, cancer and otherwise endangers the health of those who use it and their unborn children;
2. that marijuana is a highly addictive drug that they manipulated in order to sustain addiction;
3. that they marketed and promoted marijuana as not being harmful when in fact it is;
4. that they intentionally marketed to young people under the age of twenty-one and denied doing so;
5. that they concealed evidence to prevent the public from knowing about the dangers of marijuana to protect the industry from adverse litigation results.

We use the term "marijuana" because that is the term for most of the cannabis products that are sold. However, this paper is concerned with all plant derived or synthetic cannabinoid products that require warnings such as cannabidiol (CBD) and Delta 8-THC, Delta 9-THC, Delta 10-THC and THC-O-Acetate and tetrahydrocannabivarin (THCV).[2]

The word "cannabis" refers to all products derived from the plant Cannabis sativa. The cannabis plant contains about 540 chemical substances. The word "marijuana" refers to parts of or products from the plant Cannabis sativa that contain certain amounts of tetrahydrocannabinol (THC). THC is the substance that's primarily responsible for the effects of marijuana on a person's mental state. Some cannabis plants contain very little THC. Under U.S. law, these plants are considered "hemp" rather than marijuana. 21 U.S.C. § 802 (16)

The best way for people to avoid these harms is to avoid marijuana and other cannabis products. This paper does not endorse marijuana or cannabis use in any form and opposes its use and legalization and commercialization. We hope that consumers will be deterred from marijuana and cannabis use. The exceptions are the FDA approved cannabinoid-based medicines that can be used under medical direction.

There are definite well-documented risks of physical and mental damage from marijuana and other cannabinoid products. For example, any medicine that the Food and Drug Administration approves requires warnings by the product manufacturer or seller or medical care provider. This is the case where marijuana or any other products of cannabis such as hemp and cannabidiol (CBD) are to be approved for any use by the FDA for medicinal purposes.

The FDA has not approved the cannabis plant for any medical use. However, the FDA has approved several drugs that contain individual cannabinoids. Epidiolex, which contains a purified form of CBD derived from cannabis, was approved for the treatment of seizures associated with Lennox-Gastaut syndrome or Dravet syndrome, two rare and severe forms of epilepsy. Marinol and Syndros, which contain dronabinol (synthetic THC), and Cesamet, which contains nabilone (synthetic chemical similar to THC) are approved by the FDA. Dronabinol and nabilone are used to treat nausea and vomiting caused by cancer chemotherapy. Dronabinol is also used to treat loss of appetite and weight loss in people with HIV/AIDS.

The few Cannabinoid products that have been approved for use by the FDA, including Epidiolex, Marinol and Cesamet have extensive warnings of the many risks of use. The FDA drug label for Marinol issues a warning that the drug "may cause psychiatric and cognitive effects and impair mental and/or physical abilities. Avoid use in patients with psychiatric history." The FDA drug label for prescription CBD in the form of Epidiolex issues a warning that the drug may cause "Hepatocellular injury (liver), somnolence and sedation, suicidal behavior and ideation."[3] While these boxed warnings exist on low potency prescription cannabis products, there may be no warnings on much higher potency federally illegal marijuana products sold at marijuana stores or dispensaries.

Unless there are proper labeling and warnings the consumer has no complete way of knowing the potency or purity of the product, as state-legalized marijuana lacks the quality control of FDA-approved medicines or foods, although in some states the percentage of tetrahydrocannabinol (THC) and cannabidiol (CBD) are listed on the products sold in state-legalized stores or dispensaries.

ABOUT SCHEDULE 1 DRUGS

Drugs are divided up into five "schedules" by federal law depending on their addictiveness, potential harm and usefulness as a medicine. Schedule 5 are the least harmful. The most addictive and dangerous drugs are put into Schedule I. Marijuana is a schedule I drug because: (1) the drug has a high potential for abuse; (2) the drug has no currently accepted medical use in treatment in the United States; and (3) there is a lack of accepted safety for use of the drug under medical supervision.

21 U.S.C. §§ 811, 812(b). Gonzales v. Raich, 545 U.S. 1, 15 (2005). Marijuana as a Schedule I drug cannot be prescribed for any medical purpose. This was upheld in federal court in 2015 in US v. Pickford, 100 F.Supp.3d 981 (ED CA 2015). See also https://www.dea.gov/drug-information/drug scheduling.

1. GENERAL HEALTH RISKS

There are definite health risks associated with the consumption of cannabis derivatives such as tetrahydrocannabinol (THC) and CBD. These health risks can be idiosyncratic and unpredictable in nature even with low potency marijuana. Health risks can also be dependent on biochemical, mental health, and/or other physical and psychological factors. The risks are many and include:

- Psychosis
- Suicides
- Lung damage
- Cancer
- Brain damage
- Neonatal Exposure
- Opioid abuse
- Motor vehicle and home and work place accidents
- Cannabis Hyperemesis Syndrome.[4]

CONCLUSION: Use of marijuana products can cause damage to the user's physical and/or mental health.

2. RISKS TO UNBORN CHILDREN AND PARENTS

There are health risks for mothers and fathers and unborn children associated with the consumption of marijuana. For women who are pregnant, breast-feeding, or planning on becoming pregnant, a warning should be provided. Irreparable damage is being done to the DNA of both male and females and their children by marijuana use. The basic scientific understanding of the damage to DNA has been known for decades.[5]

Cannabinoid use during pregnancy can be harmful to a baby's health. This includes THC and CBD. The chemicals in marijuana (in particular, tetrahydrocannabinol (THC) pass through the mother's system to the baby and may harm the baby's development. Although more research is needed to better understand how marijuana may affect mothers and their babies during pregnancy, the American College of Obstetricians and Gynecologists (ACOG) strongly advises that pregnant women not use marijuana.[6]

The Colorado School of Public Health reports that there is a 50% increase in low birth weights among women who use marijuana during pregnancy. Low birth weight sets the stage for future health problems including infection and time spent in neonatal intensive care.[7]

Prenatal marijuana use has been linked with:

a. Developmental and neurological disorders and learning deficits in children.
b. Premature births, miscarriages, stillbirths.
c. An increased likelihood of a person using marijuana as a young adult.
d. The American Medical Association states that marijuana use may be linked with low birth weight, premature birth, behavioral and other problems in young children.
e. Birth defects and childhood cancer.
f. Reproductive toxicity affecting a father's sperm in spermatogenesis, which is the process of the formation of male gamete including meiosis and formation of sperm cells.
g. Data implicate cannabinoids including cannabidiol (CBD) in a diverse spectrum of heritable congenital anomalies.[8]

Marijuana use is not recommended in pregnancy and is associated with poor health at birth[9] and future cognitive and emotional problems in children. [10] Despite these known risks, a recent investigation into regulated cannabis dispensaries in Colorado found that employees, when asked, recommended cannabis for pregnancy-associated morning sickness 69% of the time and usually did not recommend speaking to the woman's physician first. [11]

CONCLUSION: There are physical and mental health risks for mothers and fathers and unborn children associated with the consumption of marijuana.

3. RISKS TO MENTAL HEALTH

Marijuana use, especially frequently (daily or nearly daily) and in high potency, can cause disorientation and sometimes unpleasant thoughts or feelings of anxiety and paranoia. People who use marijuana are more likely to develop a temporary psychosis (not knowing what is real, hallucinations, and paranoia) and long-lasting mental disorders, including schizophrenia (a type of mental illness where people might see or hear things that are not really there). The association between marijuana and schizophrenia is stronger in people who start using marijuana at an earlier age and use marijuana more frequently. Marijuana use has also been linked to depression, social anxiety, and thoughts of suicide, suicide attempts, and suicide.[12]

Marijuana use can trigger measurable psychotic symptoms (observable in clinical studies of purified THC) in 40% of individuals with no family history of a psychosis. [13] In regular recreational users, it can trigger full-fledged chronic psychotic disorders at a greater rate than any other recreational drug, i.e., more than LSD, PCP, cocaine, methamphetamine, amphetamine or alcohol (observable in large epidemiological and register-based studies).[14] The risk is elevated about 5-fold by regular use of high potency marijuana.[15] The facts illustrating that marijuana is a causal factor for psychoses were published in the journal Addiction. [16]

The major damage found by the National Academies of Sciences Engineering and Medicine in their 2017 report "The Health Effects of Cannabis and Cannabinoids" was that marijuana use was strongly associated with a greater risk of developing schizophrenia. Subsequent research has only strengthened this connection. [17]

The American Psychiatric Association states that:

> *There is no current scientific evidence that cannabis is in any way beneficial for the treatment of any psychiatric disorder. In contrast, current evidence supports, at minimum, a strong association of cannabis use with the onset of psychiatric disorders. Adolescents are particularly vulnerable to harm, given the effects of cannabis on neurological development.*
>
> *Medical treatment should be evidence-based and determined by professional standards of care; it should not be authorized by ballot initiatives.*
>
> *No medication approved by the FDA is smoked. Cannabis that is dispensed under a state-authorized program is not a specific product with controlled dosages. The buyer has no complete way of knowing the strength or purity of the product, as cannabis lacks the quality control of FDA-approved medicines, although in some states the percentage of delta-9tetrahydrocannabinol (THC) and cannabidiol (CBD) are listed on the products sold in state-legalized stores or dispensaries.*
>
> *Prescribers and patients should be aware that the dosage administered by smoking is related to the depth and duration of the inhalation and therefore difficult to standardize. The content and potency of various Cannabinoids contained in cannabis can also vary, making dose standardization a challenging task.*
>
> *Even non-smoked means of consumption, such as edible forms of cannabis, tinctures, and ointments have variable absorption, bio-availability, and a range of phytocannabinoids and other biologically active compounds which are not measured or controlled for in production.*
>
> *Physicians who recommend use of cannabis for "medical" purposes should be fully aware of the risks and liabilities inherent in doing so.*
>
> *The APA does not endorse cannabis as medicine.[18]*

The state of Colorado warns that use of marijuana concentrates may lead to psychotic symptoms and/or psychotic disorder (delusions, hallucinations, or difficulty distinguishing reality) and mental health symptoms/problems. [19]

CONCLUSION: Use of marijuana products can cause severe damage to the user's mental health including psychotic symptoms and/or psychotic disorder (delusions, hallucinations, or difficulty distinguishing reality) and other mental health symptoms and problems.

4. RISKS OF SUICIDE

There is significant evidence linking cannabis use and suicide, especially in teens and young adults.[20] In 2019, a review of multiple publications found that adolescent cannabis use was associated with increased depression in young adulthood and a tripling of the risk of a suicide attempt.[21] Marijuana is the most prevalent substance found in completed teen suicide in the state of Colorado.[22] A population-based cohort study of Medicaid-enrolled youths with mood disorders found that the presence of cannabis use disorder was significantly associated with an increased risk of nonfatal self-harm, all-cause mortality, and death by unintentional overdose and homicide.[23]

CONCLUSION: Use of marijuana products can cause users to become suicidal or to engage in self-harm.

5. DAMAGE TO MENTAL ABILITY

Research shows that exposure to marijuana is associated with cognitive decline, poor memory, inattention, impaired learning performance, reduced dopamine brain response-associated emotionality, and increased addiction severity in young adults. Marijuana use directly affects brain function - specifically the parts of the brain responsible for memory, learning, attention, decision-making, coordination, emotions, and reaction time. Developing brains, such as those in babies, children, and teenagers, are especially susceptible to the harmful effects of marijuana and tetrahydrocannabinol (THC).[24]

CONCLUSION: Use of marijuana products can cause damage to the user's mental functioning.

6. CARDIAC AND LUNG DAMAGE

There is an emerging literature on serious cardiac events being triggered by potent marijuana use in the young, including fatalities. Stroke, arrhythmias, and cardiomyopathies are major outcomes of concern. Smoked marijuana, regardless of how it is smoked, can harm lung tissues and cause scarring and damage to small blood vessels.[25]

CONCLUSION: Use of marijuana products can cause damage to the user's heart and cardiac system and lungs.

7. RISKS OF CANCER

Smoked marijuana, regardless of how it is smoked, can harm lung tissues and cause scarring and damage to small blood vessels. Smoke from marijuana has many of the same toxins, irritants, and carcinogens (cancer-causing chemicals) as tobacco smoke. Smoking marijuana can also lead to a greater risk of bronchitis, cough, and mucus production, though these symptoms generally improve when marijuana smokers quit.[26]

Independent studies have shown that the risk for testicular cancer is doubled by regular use.[27]

Marijuana use may also cause other cancers. Experimental studies show that Cannabinoids are an important cause of community-wide genotoxicity impacting both birth defect and cancer epidemiology. For example, the State of California has declared that marijuana smoke has been identified through reputable research as carcinogenic, and relates to or causes developmental malformations (teratogenic), and causing other potential harms to the user and those exposed to marijuana smoke. Marijuana may be involved with head and neck cancer, lung cancer, bladder cancer, brain cancer, and testicular cancer and childhood cancers.[28]

CONCLUSION: Use of marijuana products can cause cancer.

8. RISKS OF DEPRESSION

Adolescents who use cannabis have a significant increased risk of depression and suicidality in adulthood.[29] Researchers from McGill and Oxford Universities carried out a systematic review and meta-analysis that included 23,217 individuals from 11 international studies. They found that cannabis use among adolescents is associated with significant increased risk of depression and suicidality in adulthood. The population attributable risk was found to be around 7%, which translates to more than 400,000 adolescent cases of cannabis attributed depression.[30]

CONCLUSION: Use of marijuana products can cause depression in the user.

9. DAMAGE TO CHILDREN

The rate of marijuana exposures in the "medical" marijuana states among children under the age of six was reported in a study published in Clinical Pediatrics. The data comes from the National Poison Data System. 75% percent of the children ingested edible marijuana products such as marijuana-infused candy. Clinical effects include drowsiness or lethargy, ataxia (failure of muscle coordination), agitation or irritability, confusion and coma, respiratory depression, and single or multiple seizures. Because more states are likely to pass legislation legalizing medical and recreational use of marijuana, increased efforts to establish child-focused safety requirements regarding packaging of commercially sold marijuana products are needed to help prevent more children from being exposed to this drug.[31]

In Colorado, one in six infants and toddlers hospitalized for lung inflammation are testing positive for marijuana exposure. This has been a 100% increase since legalization (10% to 21%). Nonwhite kids are more likely to be exposed than white kids.[32]

Marijuana related emergency room visits by Colorado teens is substantially on the rise. They see more kids with psychotic symptoms and other mental health problems and chronic vomiting due to marijuana use.[33]

Marijuana use is tied to concurrent and lasting changes in adolescent cognitive functions, according to a study that tracked high school students for 4 years. Of particular concern was the finding that marijuana use was associated with lasting effects on a measure of inhibitory control, which is a risk factor for other addictive behaviors, and might explain why early onset marijuana use is a risk factor for other addictions.[34]

CONCLUSION: Use of marijuana products can cause damage to the physical and/or mental health of children.

10. BRAIN DEVELOPMENT IN CHILDREN

Marijuana affects brain development. Developing brains, such as those in babies, children, and teenagers, are especially susceptible to the harmful effects of marijuana and tetrahydrocannabinol (THC).[35] Heavy marijuana use has shown visible negative alterations in both brain structure and function.[36]

Research shows that infants exposed to THC before birth suffer a wide array of neurocognitive and neurobehavioral deficits that cascade throughout childhood and adolescence, resulting in adverse social, health, educational and economic consequences. Exposing the developing brain to marijuana can prime the brain to addiction and have potential negative consequences. Although scientists are still learning about the effects of marijuana on developing brains, studies suggest that marijuana use by mothers during pregnancy could be linked to problems with attention, memory, problem-solving skills, and behavior in their children.[37]

CONCLUSION: Use of marijuana products can damage brain development in children.

11. RISKS OF HIGH POTENCY MARIJUANA

Marijuana products today can be up to 99% THC, the psychoactive chemical in marijuana.[38] The amount of THC in marijuana has been increasing steadily over the past few decades. For a person who's new to marijuana use, this may mean exposure to higher THC levels with a greater chance of a harmful reaction including mental illness.

Limiting the availability of high potency marijuana may be associated with decreased marijuana addiction and mental illness.[39] However, this does not imply that low potency marijuana could be safely or more safely used. Even in small low potency amounts, damage of all kinds can be done to those of all ages and their children.[40]

CONCLUSION: Marijuana products may contain high potency marijuana. High potency marijuana is known to cause many mental health and physical health problems.

12. CANNABIS HYPEREMESIS SYNDROME (CHS)

CHS is now commonly recognized in hospital emergency rooms in long term marijuana users. CHS is potentially fatal and associated with painful retching, vomiting, and abdominal pain.[41]

The state of Colorado warns that use of marijuana concentrates may lead to Cannabis Hyperemesis Syndrome (CHS) (uncontrolled and repetitive vomiting).[42]

CONCLUSION: Use of marijuana products can cause damage to the user's physical and/or mental health. It can cause uncontrollable and repetitive vomiting.

13. RISKS OF VIOLENCE

According to research studies, marijuana use is linked to aggressive behavior and domestic violence and can cause or exacerbate psychoses and produces paranoias all of which can lead to violence and homicide. Marijuana use has also been linked to mass shootings.[43]

PTSD patients who were marijuana users have been found to make less progress in overcoming their condition and were more likely to be violent. Initiating marijuana use after PTSD treatment was associated with worse PTSD symptoms, more violent behavior, and alcohol use. Marijuana may actually worsen PTSD symptoms or nullify the benefits of specialized, intensive treatment.[44]

CONCLUSION: Use of marijuana products can cause the user to become violent.

14. DRIVING AND OPERATION OF MACHINERY

Cognitive capabilities and perceptions can be immediately impaired due to the THC in marijuana and Cannabinoids such as CBD. This can include low levels of THC. THC can impair important skills required for safe driving or operation of machinery by slowing reaction time and the ability to make decisions, impairing coordination, and distorting perception.[45]

Epidemiology data from road traffic arrests and fatalities indicate that after alcohol, THC is the most frequently detected psychoactive substance among driving populations. The data clearly shows a reduced ability to drive safely after THC use.[46] As stated in the Surgeon General's 2016 report Facing Addiction in America, marijuana's THC is a serious threat to the physical and mental health of our children and that its use is a major hazard to public safety.[47]

Based on state data, the state of Colorado warns that use of marijuana's THC may impair the ability to drive or operate machinery.[48]

THC causes a decline in motor performance resulting in delayed reaction times and reduced ability to stay in one's own driving lane. Cognitive functions decline reducing one's ability to maintain sustained attention to driving conditions and leading to poor decision-making, impulse control and memory.[49] The adverse effects of THC on driving safety have been proven with controlled laboratory experiments driving simulators and real-world driving experiments.[50]

Chronic users build up a tolerance to some, but not all of the effects of THC. To compensate for their tolerance, chronic users consume higher quantities of a drug to obtain their desired effect and are just as impaired as occasional users.[51]

CONCLUSION: Use of marijuana products will cause the user to be unsafe in driving a motor vehicle or operating machinery.

15. POST-TRAUMATIC STRESS DISORDER (PTSD)

The use of marijuana can make PTSD worse and increase the risk of suicide.[52] Those who have PTSD should be warned about its use. The only blind sample clinical study on the response of PTSD patients to marijuana found no benefit as compared to a placebo.[53]

CONCLUSION: Use of marijuana products may be harmful to people with Post Traumatic Stress Disorder.

16. HARMFUL DRUG AND MEDICINE INTERACTIONS

There are many concerns about the interaction between marijuana (cannabis) and medications. Cannabinoid levels can be increased by other medications. Cannabinoids can affect levels of other drugs. Smoking marijuana can increase clearance of some drugs. Additive effects can occur with other drugs. There are potential "red flag" interactions.[54]

Consumers need warning labels on some prescription medications from the pharmacy such as "Do not take with alcohol" or "Do not take with grapefruit juice." Pharmacies can check for medication interactions.

The marijuana plant has over 400 chemicals that include tetrahydrocannabinol (THC), the psychoactive chemical and cannabidiol (CBD). These products are metabolized in the liver and may alter the metabolism of many medications resulting in toxicity or under dosing of the medications. There are 379 drug interactions with THC, 25 major and 354 minor. There are 539 drug interactions with cannabidiol

(CBD), 9 major and 482 moderates. Drug interactions with marijuana products can be life threatening. Marijuana and CBD and all Cannabinoids, may interact with the following medicines:

- Sedatives - such as Barbiturates, lorazepam (Klonopin), lorazepam (Ativan), phenobarbital (Donnatal), zolpidem (Ambien) and others. The sedative effect can be increased.
- Theophylline - decrease the effects of theophylline which is bronchodilator - it opens up the airways in the user's lungs to make breathing easier.
- Disulfiram (Antabuse) - using it and marijuana can cause agitation, trouble sleeping, and irritability.
- Fluoxetine (Prozac) - using it and marijuana can cause irritation, nervousness, jitteriness, and excitation (hypomania).
- Warfarin (Coumadin) - using it and marijuana can increase the chance of bruising and bleeding.[55]

Marijuana and CBD may also interact with

- Zonisamide
- Eslicarbazepine acetate (Aptiom—Sunovion)
- Cyclosporine Calcium channel blockers
- Benzodiazepines
- Haloperidol (Haldol—Johnson & Johnson)
- Atorvastatin (Lipitor—Pfizer)
- Simvastatin
- Antiepileptic drugs (caution with children)
- Clobazam
- Corticosteroids
- Some hospital-administered antibiotics
- Medicines that make patients lethargic (marijuana can accentuate that)
- Marijuana increases the level or effect of a lot of different medications.[56]

Alcohol: The combination of alcohol and marijuana can have severe psychomotor effects impairing driving.[57]

CBD: CBD may potentially interact in a negative way with anti-epilepsy drugs such as:

- Carbamazepine (Tegretol)
- Phenytoin (Dilantin)
- Phenobarbital (Luminal, Solfoton, Tedral)
- Primidone (anti-seizure)[58]

CONCLUSION: Use of marijuana products can cause a harmful interaction with other drugs or medicines. Consult the user's health care provider before use. Inform the user's health care provider of any medications being taken.

17. RISKS OF IMMEDIATE SIDE EFFECTS

Marijuana users should be warned of the possibility that marijuana may cause immediate side effects such as headache, dizziness, drowsiness, dry mouth, nausea, and paranoid thinking. Smoking cannabis might also increase appetite, increase heart rate, change blood pressure, and impair mental functioning. Some reports suggest that smoking cannabis may also increase the risk of heart problems such as heart attack and abnormal heart rhythm.[59]

CONCLUSION: Use of marijuana products can cause immediate harmful side effects.

18. UNLAWFUL USE OUTSIDE OF THE STATE

Some state laws that "legalize" marijuana are clear that it can only be used in that state. The product is unlawful outside the state.[60]

CONCLUSION: Marijuana products cannot be used outside of certain states or be taken across state lines.

19. LACK OF REGULATORY CONTROL

In some states the marijuana product may be produced without regulatory oversight for health, safety, or efficacy and consumers should be warned if this is the case. The State of Colorado warns about this.[61]

CONCLUSION: Marijuana products may be produced without regulatory oversight for health, safety, or efficacy.

20. INTOXICATION MAY BE DELAYED

The intoxicating effects of all forms of marijuana, including marijuana edibles may be delayed. Owing to the idiosyncratic and unpredictable effects of marijuana, there is no way in which its safety and efficacy can be assured. Those who use any cannabinoid product need to be fully apprised of the risks involved in the use of these drugs.[62]

CONCLUSION: Use of marijuana products may cause intoxication that may be delayed.

21. CONTAMINATION

Marijuana consumers should be warned that there may be nonorganic pesticides, fungicides, and herbicides used during the cultivation of the marijuana. The pesticides and fungicides used in marijuana growing are dangerous chemicals.[63] In addition, the cannabis plant is known as a hyper-accumulator; as it grows, it can take up unusually high levels of toxic heavy metals from the soil or growing medium through its roots and potentially into its flowers.[64]

There have been reports of contamination of cannabis/cannabinoid products with microorganisms.[65]

CONCLUSION: Marijuana products may contain microorganisms, nonorganic pesticides, fungicides, herbicides and heavy metals acquired during the cultivation of the marijuana.

22. AGE LIMITS

There are age limits for "legal" consumption under the state laws. However, this implies that marijuana can be safely used or "regulated" if there are age limits. Age limits are of no avail with a substance that has known harmful physical, mental, and psychological effects.[66]

CONCLUSION: Use of marijuana products by anyone under the age of __ may be illegal under state law. Use of marijuana products by any one of any age is illegal under federal law.

23. ADDICTION

One study estimated that approximately 3 in 10 people who use marijuana have Cannabis Use Disorder (CUD). Another study estimated that people who use marijuana have about a 10% likelihood of becoming addicted. The risk of developing CUD is greater in people who start using marijuana during youth or adolescence and who use marijuana more frequently. The following are signs of CUD:

- Using more marijuana than intended.
- Trying but failing to quit using marijuana.
- Spending a lot of time using marijuana.
- Craving marijuana.
- Using marijuana even though it causes problems at home, school, or work.
- Continuing to use marijuana despite social or relationship problems.
- Giving up important activities with friends and family in favor of using marijuana.
- Using marijuana in high-risk situations, such as while driving a car.
- Continuing to use marijuana despite physical or psychological problems.
- Needing to use more marijuana to get the same high.
- Experiencing withdrawal symptoms when stopping marijuana use.[67]

The state of Colorado warns that use of marijuana concentrate may lead to cannabis use disorder/dependence, including physical and psychological dependence. [68]

CONCLUSION: Use of marijuana products may cause the users to develop cannabis use disorder/dependence (addiction), including physical and psychological dependence.

24. PAIN MANAGEMENT

Even though pain management is one of the most common reasons people report for using medical marijuana in the United States, there is limited evidence that marijuana works to treat most types of acute or chronic pain. Further, marijuana legalization is not associated with decreases in opioid overdose deaths and that

prior research findings that it did reduce deaths could be coincidental. Importantly, using marijuana either alone or in combination with opioids has been shown to increase risk for opioid misuse. There is no evidence that marijuana works to treat opioid use disorder. Safe and effective FDA-approved medications are available to treat opioid use disorder.[69]

The potential benefits of cannabis-based medicine (herbal cannabis, plant-derived or synthetic THC, THC/CBD oromucosal spray) in chronic neuropathic pain might be outweighed by their potential harms.[70]

CONCLUSION: Use of marijuana products may cause the users to develop cannabis use disorder/dependence, including physical and psychological dependence. Such products are not good pain relievers.

25. RISKS OF POISONING

Edibles such as food and drink products infused with marijuana, have some different risks than smoked marijuana, including a greater risk of poisoning. Unlike smoked marijuana, edibles can take from 30 minutes to 2 hours to take effect, so some people may eat too much, which can lead to poisoning and/or serious injury. They can cause intoxicating effects that last longer than expected, depending on the amount ingested, the last food eaten, and medications or alcohol used at the same time. They can be unpredictable. The amount of tetrahydrocannabinol (THC), or the concentration or strength, is very difficult to measure and is often unknown in edible products. Many people who use edibles can be caught off-guard by their strength and long-lasting effects.[71]

CONCLUSION: Use of marijuana products may result in poisoning and unpredictable toxic effects.

26. RISKS OF SECONDHAND MARIJUANA SMOKE

The known risks of secondhand exposure to tobacco smoke - including risks to the heart and lungs - raise questions about whether secondhand exposure to marijuana smoke causes similar health risks. Secondhand marijuana smoke contains many of the same toxic and cancer-causing chemicals found in tobacco smoke and contains some of those chemicals in higher amounts.[72]

The state of California warns that marijuana smoke may be cancerous.[73]

CONCLUSION: Secondhand exposure to marijuana smoke has risks including risks to the heart and lungs.

27. RISKS OF MAKING GLAUCOMA WORSE

Recent evidence shows that cannabis in either tetrahydrocannabinol (THC) or cannabidiol (CBD) are both harmful to the eye and have a deleterious effect on glaucoma. CBD has been shown to increase intra-ocular pressure (IOP) the fundamental problem with most forms of glaucoma. THC lowers IOP but the effect is transient and therapeutically worthless. Chronic cannabis use causes damage and loss of retina ganglion cells as does the disease glaucoma. Moreover, ganglion cells are central nervous system tissue, like the cells of the brain, and may serve as a surrogate marker for brain cell loss. This might account for neurological problems associated with heavy cannabis use such as memory loss, lethargy, and poor motivation, permanent IQ loss in youthful users, aggression, psychoses, etc. Half a century of research has found no benefit to any cannabis products in ophthalmology. Use of sham "medical" marijuana, CBD, or any form of cannabis is not recommended for glaucoma or any other eye condition by the American Academy of Ophthalmology or the Glaucoma Society. No physician should ever recommend cannabis use for any of the many forms of glaucoma.[74]

CONCLUSION: Use of marijuana products may make glaucoma worse and may cause eye damage.

28. RISKS OF AUTISM

Marijuana use makes autism scores worse. Autism Spectrum Disease (ASD) "is the commonest form of cannabis-associated clinical teratology."[75] A teratology is a collection of four things having something in common, such as a deformity with four features.

This is likely epidemiologically highly significant for the US, where autistic spectrum disorders have been shown to be growing exponentially. Cannabis use across the US was shown to be independently associated with autism rates across both time and space, to be dose-related, and, based on conservative projections, has been predicted to be at least 60% higher in cannabis-legal states than in states where cannabis was illegal by 2030.[76]

CONCLUSION: Use of marijuana products can make autism scores worse in the user.

29. RISKS OF OPIOID DEPENDANCE

A *PubMed* review of 2,237 titles resulted in 14 studies that met inclusion criteria to review and found cannabis use ranging 6.2 – 38% in chronic opioid users compared to 5.8% in general population. Cannabis use in chronic opioid patients showed statistically significant associations with present and future aberrant opioid-related behaviors.[77]

Many studies show that marijuana use increases the likelihood of opioid use disorder and opioid misuse[78] and it is not a good pain reliever.[79] It might be of some benefit for chronic pain patients who do use the drug to know that marijuana is an intoxicant and like any intoxicant, including beverage alcohol, pain sensations may be dulled while the intoxicated person is under the influence of the intoxicant. And like any other intoxicant, the cause of the pain is not affected by the use of the intoxicant and the pain will return when the effects of the intoxicant wear off.

CONCLUSION: Marijuana products are intoxicants and have been shown to increase the likelihood of opioid use disorder and opioid misuse and they are not good pain relievers.

30. RISKS OF ALLERGIC REACTION

Allergic disease associated with marijuana exposure and use has been reported with increased frequency, including anaphylaxis.[80]

CONCLUSION: Use of marijuana products may cause a life-threatening allergic reaction.

31. RISKS OF SLEEP DISTURBANCE

A large study has shown that marijuana use can cause problems with sleep such as progressive sleep disturbances, and other negative effects to sleep architecture and quality. [81]

CONCLUSION: Use of marijuana products cause problems with sleep such as progressive sleep disturbances, and other negative effects to sleep architecture and quality.

32. RISK OF USE OF CBD

The FDA warns that prescription CBD in the form of Epidiolex may cause hepatocellular injury (liver), somnolence and sedation, suicidal behavior and ideation.[82] Epidiolex is a very pure form of CBD and is derived from hemp and does not contain THC as do some other CBD products.[83]

In addition, CBD products that are not approved by the FDA may be medical fraud, mislabeled or contaminated.[84]

CONCLUSION: Use of CBD may cause hepatocellular injury (liver), somnolence and sedation, suicidal behavior and ideation and exposure to contamination.

33. RISK OF USE WITH EPILEPSY

Cannabinoids, primarily CBD, have been studied for the treatment of seizures associated with forms of epilepsy that are difficult to control with other medicines. Epidiolex (oral CBD) has been approved by the FDA for the treatment of seizures associated with two epileptic encephalopathies: Lennox-Gastaut syndrome and Dravet syndrome. Epileptic encephalopathies are a group of seizure disorders that start in childhood and involve frequent seizures along with severe impairments in cognitive development. However, not enough research has been done on cannabinoids for other, more common forms of epilepsy to allow conclusions to be reached about whether they're helpful for these conditions.[85]

CONCLUSION: Use of cannabis may cause people with epilepsy to not get proper treatment.

34. RISK OF USE AND STROKE

There is growing evidence links cannabis use to cerebrovascular disease, including aneurysmal subarachnoid hemorrhage (aSAH) and acute ischemic stroke. Aneurysmal subarachnoid hemorrhage (aSAH) is a sudden life-threatening bleeding

occurring in the subarachnoid space. In a population-based study, the aSAH incidence was twice as high in cannabis users as in nonusers in a younger age group.[86]

CONCLUSION: Use of cannabis may cause strokes.

35. RISK OF INJURY TO OLDER ADULTS

Cannabis use is associated with an increased risk of injury among older adults.[87]

CONCLUSION: Use of cannabis may increase the risk of injury to older adults.

36. RISK OF USING MARIJUANA AS MEDICINE

Over the past several years, FDA has issued several warning letters to firms that market unapproved new drugs that allegedly contain cannabidiol (CBD). As part of these actions, FDA has tested the chemical content of cannabinoid compounds in some of the products, and many were found to not contain the levels of CBD they claimed to contain. Many contained THC. It is important to note that these products are not approved by FDA for the diagnosis, cure, mitigation, treatment, or prevention of any disease. In addition, the FDA has consistently warned against using any cannabinoid product as a medicine unless it is approved by the FDA. Consumers should beware purchasing and using any such products.[88]

CONCLUSION: Use of marijuana/cannabis as a medicine may not be safe or effective unless approved by the FDA.

END NOTE

We hope this document will guide state officials and legislators on how to protect the public until the marijuana legalization laws are reversed.

ABOUT THE AUTHOR

David G. Evans, Esq., is Senior Counsel for the Cannabis Industry Victims Educating Litigators (CIVEL) who educate lawyers on how to make the marijuana industry accountable to their many victims. Mr. Evans is a plaintiff's litigator in personal injury and employment law cases. He is the author of the books *Employee Medical Leave, Benefits and Disabilities Law* and *Drug Testing Law, Technology and Practice* published by Thomson Reuters. Attorneys who desire more information can contact Mr. Evans at seniorcounsel@civel.org. The CIVEL website is: www.civel.org. It has additional informative materials for victims and attorneys.

He is the author of the following articles published by Thomson Reuters and available on Westlaw:

Marijuana and Product Liability, *Cannabis Law* 300:100

"Medical" Marijuana and Medical Malpractice Liability, *Cannabis Law* 500:100

Client and Case Vetting of Medical Malpractice Cases Involving Marijuana, *Cannabis Law* 500:400

Here are some websites to learn more about marijuana. They all have research and good quality information.

Americans Against Legalizing Marijuana
www.aalm.info

Driving Under the Influence of Drugs (DUID) Victims Voices
http://www.duidvictimvoices.org

Drug Free America Foundation
https://www.dfaf.org

Every Brain Matters
https://everybrainmatters.org

Gordon Drug Abuse Prevention
Gordondrugabuseprevention.com

International Academy on the Science and Impact of Cannabis
https://iasic1.org

Johnny's Ambassadors
https://johnnysambassadors.org/research/

Marijuana Victims Alliance
https://www.mvaa.info

Moms Strong
https://momsstrong.org

Parents Opposed to Pot
https://poppot.org

Smart Approaches to Marijuana.
https://learnaboutsam.org

The Marijuana Report - up to date research
https://themarijuanareport.org

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We wish to acknowledge that some of this information was obtained from the on-line library of the International Academy on the Science and Impact of Cannabis (IASIC). IASIC is an organization of international experts on cannabis who are guided by medicine and science to provide accurate and honest information that guides decision-making. *https://iasic1.org/library/*

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Springs Rehabilitation, PC, Colorado Springs, CO, Editor; Cannabis in Medicine: An Evidence-Based Approach, Co-Vice President the International Academy on the Science and Impact of Cannabis (IASIC)

Scott Chipman, Vice President, Americans Against Legalizing Marijuana *www.aalm.info*

ADDITIONAL RECOGNITION

Mark S. Gold, M.D. Distinguished Life Fellow, the American Psychiatric Association, Distinguished Fellow American College of Clinical Pharmacology, Distinguished Fellow, American Society of Addiction Medicine has conducted studies on marijuana that are cited herein.

We also wish to refer the readers to an excellent book Cannabis in Medicine an Evidence-Based Approach, Dr. Kenneth Finn, Editor, published by Springer in 2020. *https://link.springer.com/book/10.1007/978-3-030-45968-0*

This is a comprehensive compilation of multiple facets of cannabis from a medical perspective. It includes several non-medical sections which indirectly impact medicine from a public health and safety perspective. It provides an evidence-based approach to cannabis and medicine. The book includes chapters on:

- The Properties and Use of Cannabis Sativa Herb and Extracts
- Cannabinoid and Marijuana Neurobiology
- The Pharmacodynamics, Pharmacokinetics, and Potential Drug Interactions of Cannabinoids
- Cannabis and Neuropsychiatric Effects
- Cannabis and the Impact on the Pediatric and Adolescent Population
- Acute Emergency Department Presentations Related to Cannabis
- Evidence of Cannabinoids in Pain
- Cannabis in Pulmonary Medicine
- Clinical Cardiovascular Effects of Cannabis Use
- Cannabinoids in Neurologic Conditions
- Ocular Conditions and the Endocannabinoid System
- Cannabis in Oncology and Symptom Management
- Cannabis in Palliative Medicine
- Charting the Pathways Taken by Older Adults Who Use Cannabis: Where Are the Baby Boomers Going Now?
- Cannabis in Dermatology
- Fetal and Neonatal Marijuana Exposure
- Cannabinoids in Gastrointestinal Disorders
- Looking at Marijuana Through the Lens of Public Health
- Cannabis-Impaired Driving: Evidence and the Role of Toxicology Testing
- The Legal Aspects of Marijuana as Medicine

FOOTNOTES

1. Marijuana that is distributed under state laws is derived from the cannabis plant and is thus a "botanical Cannabinoid." 21 U.S.C. § 802 (16). The federal Food and Drug Administration (FDA) has only approved one botanical Cannabinoid, a CBD, as a medicine. All other botanical marijuana/Cannabinoids (THC or CBD) dispensed under state law as medicine or for "recreational use" or as a food or food supplement are illegal under the Food and Drug Administration (FDA) laws. Source: FDA Advisory, What You Need to Know (And What We're Working to Find Out) About Products Containing Cannabis or Cannabis-derived Compounds, Including CBD, November 25, 2019, available at ***www.fda.gov***.

Gonzales v. Raich, 545 U.S. 1, 15, 22 (2005); Nat'l Org. for Reform of Marijuana Laws (NORML) v. Bell, 488 F. Supp. 123, 136 (D.D.C.1980); 21 U.S.C. § 812.21; 21 U.S.C. 331 and 355 (b)(1)(drug must be safe and effective in use). Elansari v. United States, 2016 WL 4415012 (MD PA 2016); US v. Pickford, 100 F.Supp.3d 981, 1007–1009 (D CA 2015)

2. It is our position that all forms of THC are dangerous. Types of THC include Delta 9 (the most common) and Delta 8-THC, Delta 9-THC, Delta 10-THC and THC-O, also known as THC-O-Acetate.

Delta 8-THC ***https://cen.acs.org/biological-chemistry/natural-products/Delta-8-THC-craze-concerns/99/i31***

Delta 10 -THC ***https://extractionmagazine.com/2020/03/21/the-bizarre-crystallization-of-%CE%B410-thc/***

THC-O, also known as THC-O-Acetate ***https://www.hempgrower.com/article/thc-o-acetate-q-and-a-dr-ethan-russo-credo-science/***

3. Cesamet - has the potential to affect the central nervous system which might manifest itself in dizziness, drowsiness, euphoria "high", ataxia, anxiety, disorientation, depression, hallucinations and psychosis. ***https://www.accessdata.fda.gov/drugsatfda_docs/label/2006/018677s011lbl.pdf***

Marinol - ***https://www.accessdata.fda.gov/drugsatfda_docs/label/2006/018651s025s026lbl.pdf***

Epidiolex - ***https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/210365lbl.pdf***

4. ***https://iasic1.org/doctors-warn-cannabis-can-cause-serious-health-hazards/***

Summary of the Medical Application of Marijuana: A Review of Published Clinical Studies, U.S. FDA Center for Drug Evaluation and Research, 81 Fed. Reg. 53767 (August 12, 2016).

CDC information

https://www.cdc.gov/marijuana/index.htm
https://www.cdc.gov/marijuana/health-effects/addiction.html
https://www.cdc.gov/marijuana/health-effects/brain-health.html
https://www.cdc.gov/marijuana/health-effects/cancer.html
https://www.cdc.gov/marijuana/health-effects/driving.html
https://www.cdc.gov/marijuana/health-effects/heart-health.html
https://www.cdc.gov/marijuana/health-effects/lung-health.html
https://www.cdc.gov/marijuana/health-effects/mental-health.html
https://www.cdc.gov/marijuana/health-effects/chronic-pain.html
https://www.cdc.gov/marijuana/health-effects/poisoning.html
https://www.cdc.gov/marijuana/health-effects/risk-of-other-drugs.html
https://www.cdc.gov/marijuana/health-effects/second-hand-smoke.html

Increases in Availability of Cannabis Products Containing Delta-8 THC and Reported Cases of Adverse Events. ***https://emergency.cdc.gov/han/2021/han00451.asp***

https://www.nccih.nih.gov/health/cannabis-marijuana-and-cannabinoids-what-you-need-to-know

https://www.natlawreview.com/article/fda-and-cdc-issue-warnings-regarding-health-risks-using-delta-8-thc-products

https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc

Why Marijuana Legalization is a Very Bad Idea ***https://acdemocracy.org/why-marijuana-legalization-is-a-very-bad-idea***

Predictable and Unpredictable Effects of Marijuana. Published March 4, 2021 by Moms Strong ***https://momsstrong.org/2021/03/04/marijuana-predictable-and-unpredictable-effects***

The disconnect between the science on cannabis and public health campaigns. Miller CL. Addiction. 2017;112(10):1882-1883. ***https://onlinelibrary.wiley.com/doi/full/10.1111/add.13918***

https://www.reuters.com/article/us-health-marijuana-kids/marijuana-related-er-visits-by-colorado-teens-on-the-rise-idUSKBN1HO38A

Colorado Department of Revenue, Marijuana Enforcement Division, Retail Marijuana Code, 1 CCR 212-2; See sections: R1004 (B)(1)(j) and R1005(B)1(h) and R1007.5(B)(1)(g) (hereinafter "1 CCR 212-2.")

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Delta-8 tetrahydrocannabinol, also known as delta-8 THC, is a psychoactive substance found in the *Cannabis sativa* plant, of which marijuana and hemp are two varieties. Delta-8 THC is one of over 100 cannabinoids produced naturally by the cannabis plant but is not found in significant amounts in the cannabis plant. As a result, concentrated amounts of delta-8 THC are typically manufactured from hemp-derived cannabidiol (CBD). It is important for consumers to be aware that delta-8 THC products have not been evaluated or approved by the FDA for safe use in any context. They may be marketed in ways that put the public health at risk and should especially be kept out of reach of children and pets. ***https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc***

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Joshua S. Catapano, Kavelin Rumalla, Visish M. Srinivasan, Mohamed A. Labib
Originally published 5 Jan 2022; https://doi.org/10.1161/STROKEAHA.121.035650Stroke. 2022;53:e42–e43; *https://www.ahajournals.org/doi/10.1161/STROKEAHA.121.035650*

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https://www.fda.gov/consumers/consumer-updates/what-you-should-know-about-using-cannabis-including-cbd-when-pregnant-or-breastfeeding

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In a recent and most extensive study of commercial marijuana products ever conducted, researchers analyzed over 90,000 samples from over six legal states and found widespread mislabeling issues regarding the psychoactive contents of myriad products. The study showed that the prevailing labeling system is not an effective or safe way to provide information about these products. The current labeling of marijuana products is a profound disservice to consumers. It is a cause for concern. Source: The phytochemical diversity of commercial Cannabis in the United States, Smith et. al., Published: May 19, 2022, PLOS *https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0267498*

Doctors Warn

Cannabis Can Cause Serious Health Hazards

IASIC, the International Academy on the Science and Impact of Cannabis, is a medical organization of doctors who educate on the impacts of cannabis, based on the scientific and medical literature. IASIC is a non-partisan and non-political group created to facilitate informed decisions when considering health and cannabis policy.



Thousands of peer-reviewed medical articles have been published on the harms of cannabis and marijuana: Emergency Department (ED) Visits, Psychosis, Suicide, Brain Development, Neonatal Exposure, Opioid Use, Traffic Fatalities, High Potency Use, Problematic Use and Cannabis Hyperemesis Syndrome.

While we support FDA-approved cannabis-based products that have met the rigor of scientific study, it is our conclusion, based on review of the scientific evidence, that the negative impacts of cannabis strain our health care and addiction treatment resources to an extent that far surpasses the perceived benefits.

Calling attention to the growing science on the risks of cannabis, we see an urgent need for smart public health policies that follow the science, prevent addiction, and decrease mental illness, including psychosis, depression, and suicide.

IASIC, The International Association on Science and Impact of Cannabis wants the public and our leaders to be informed decision makers.

Scan to read the full article with citations or visit www.iasic1.org/doctors-warn-cannabis-can-cause-serious-health-hazards/

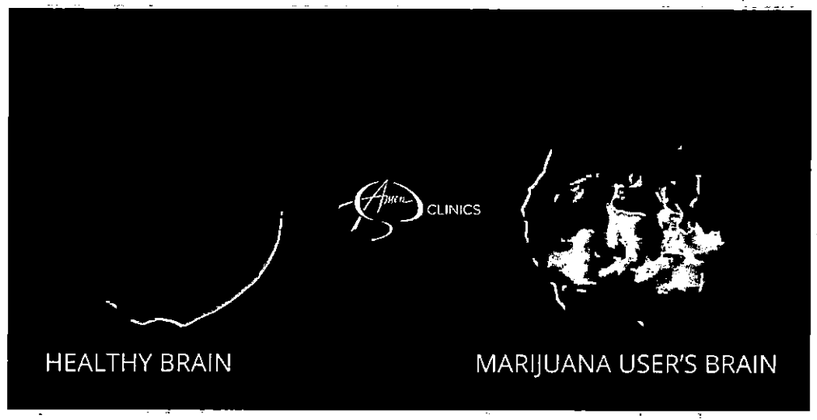
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Please make your donations to support this public health non profit organization at www.IASIC1.org/donate

IASIC

YOUR BRAIN IS AMAZING - DON'T RUIN IT WITH POT

Reported rates of marijuana use have more than doubled in the past decade. Medical marijuana is now legal in nearly half of US states and is increasing access to the drug for current and potential future users. Although it is often portrayed as harmless, and sometimes even therapeutic, there has not been nearly enough studies done to prove this. In fact, marijuana is often prescribed for issues like anxiety, though studies cannot comprehensively show this to be true. The current available information of the impact marijuana has on the neurophysiology of the brain show, predominantly, depressive effects.



In a recent study using PET imaging to demonstrate the release of dopamine in the striatum, a region of the brain that is involved in working memory, impulsive behavior, and attention, results showed that heavy marijuana use has similar dopamine releasing behaviors as cocaine and heroin with addiction. Several studies in chronic cannabis users show structural changes to the hippocampus persist, even after six months of abstinence.

U.S. Surgeon General Dr. Vivek Murthy has already warned that we're too quick to legalize the popular drug when research still hasn't shown whether or not it's truly safe. With Amen's new research, there is proof that Dr. Murthy's concerns are well warranted.

Just published in the most recent Journal of Alzheimer's Disease, the research finds that, after studying imaging of 1,000 cannabis users' brains, there were signs of noticeable deficiencies of blood flow. The study, which included 25,168 non-cannabis users, and 100 healthy controls, shows a scary and obvious difference in blood flow levels for those that used cannabis. Additionally, those that used marijuana showed a significant lack of blood flow in the right hippocampus, the area of the brain that helps with memory formation. This part of the brain is severely affected with those that suffer from Alzheimer's disease.

Our research has proven that marijuana users have lower cerebral blood flow than non-users. The most predictive region separating these two groups is low blood flow in the hippocampus on concentration brain SPECT imaging.This work suggests that marijuana use has damaging influences in the brain – particularly regions important in memory and learning and known to be affected by Alzheimer's. Our research demonstrates that marijuana can have significant negative effects on brain function. The media has given a general impression that marijuana is a safe recreational drug, this research directly challenges that notion.

Several studies of perfusion imaging in marijuana users have shown similar results compared to ours. A small O15 PET study in a sample of 12 marijuana users used a randomized clinical trial design to examine brain perfusion before and after marijuana use. The study results found frontal, temporal and occipital lobe hypo-perfusion – all findings concordant with our study.

https://www.amenclinics.com/blog/amen-research-marijuana-affects-blood-flow-brain/

Americans Against Legalizing Marijuana
AALM.info

We advocate for No Use of Illegal Drugs and No Illegal Use of Legal Drugs

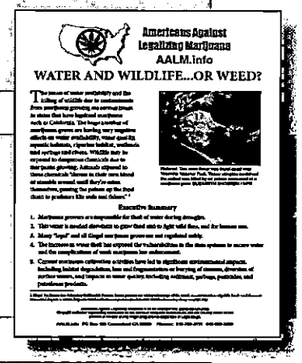
AALM Literature Available Upon Request



Ten Truths About Pot

This packet debunks 10 of the most common myths surrounding marijuana use.

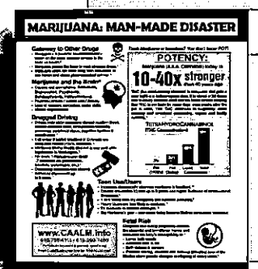
Available free - Suggested donation: $2.00 each



Water and Wildlife...Or Weed?

This 8-page brochure documents in detail the impact of illegal marijuana grows on our water supply and on wildlife.

Available free - Suggested donation: $0.50 each



Flyer - Marijuana Man-Made Disaster

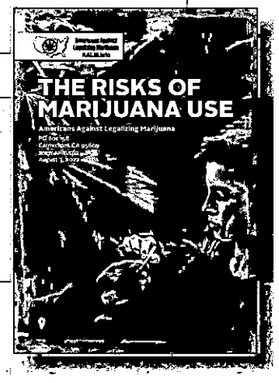
This one-page handout summarizes the negative impact of marijuana and debunks some of the myths surrounding marijuana use.

Available free - Suggested donation: $0.10 each

The Risks of Marijuana Use

This 40-page booklet documents the risks and consequences of marijuana use.

Available free - Suggested donation: $10.00 each



These documents are available in PDF Format, along with many other resources, at www.AALM.info

AALM's Position Papers

AALM has several position papers covering the major issues of marijuana use.

Americans Against Legalizing Marijuana is an all-volunteer IRS approved non-profit 501(c)(3) dedicated to providing information on the harms of marijuana to individuals and our Country based on the premise of No Use of Any Illegal Drug and No Illegal Use of Legal Drugs.

AALM.info PO Box 158 Carmichael CA 95609 Phones: 916-708-4111 619-990-7480

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Marijuana Use and Violence

January 2, 2023

There is a clear relationship between marijuana use and violence. Violent episodes, including domestic violence, should be investigated to ascertain any connection to marijuana use. Marijuana use can also be a predictor of violence and thus preventing marijuana use can reduce and prevent violence.

Attached are a number of reports of marijuana involved mass violence - representing 1000s of deaths and 1000s of injuries. We are sure there are many more, however, data collection on the connection to marijuana use and toxicology reports are not often gathered nor made public. Each incident listed has an informational link to the relevant reports of how marijuana is involved with the perpetrator's behavior. The perpetrators of mass killings are often marijuana users or used marijuana heavily in adolescence. Exhibit 1

US SECRET SERVICE REPORT ON MASS ATTACKS AND SUBSTANCE USE

Marijuana use is involved in incidents of mass attacks in which three or more persons are harmed that are carried out in public places within the United States. These acts violate the safety of places where we work, learn, shop, relax, and otherwise conduct our day-to-day lives. They have a devastating impact on our nation as a whole. As the insecurity they caused continues to ripple through our communities, those charged with ensuring public safety strive to identify methods to prevent these types of attacks.

To aid in these efforts, the U.S. Secret Service National Threat Assessment Center (NTAC) examined a sampling of these incidents, to identify key themes for enhancing threat assessment and investigative practices. Regardless of whether these attacks were acts of workplace violence, domestic violence, school-based violence, or terrorism, similar themes were observed in the backgrounds of the perpetrators including 54% of the attackers having a history of illicit drug use and/or substance abuse. This abuse, which included alcohol and marijuana, was evidenced by such factors as the attacker receiving treatment for the abuse, suffering legal consequences, or having significant problems in their personal lives stemming from the abuse. Nearly two-thirds of the attackers (64%) experienced mental health symptoms prior to their attacks. The most common symptoms observed were related to psychosis (e.g., paranoia, hallucinations, or delusions) and suicidal thoughts.[1]

MARIJUANA USE CAUSES MENTAL HEALTH PROBLEMS AND AGGRESSIVE BEHAVIORS

Even for those who use "just" marijuana, there are serious effects on mental health, where it can trigger measurable psychotic symptoms (observable in clinical studies of purified THC) in 40% of individuals with no family history of psychosis;[2,3] and in regular "recreational" users, full-fledged chronic psychotic disorders at a greater rate than any other "recreational" drug, i.e. more than LSD, PCP, cocaine, methamphetamine, amphetamine or alcohol (observable in large epidemiological and register-based studies [4-6]). **The risk is elevated about 5-fold by regular use of high strength marijuana.**[7]

The elements illustrating marijuana as a causal factor for psychosis were published recently in the journal Addiction.[8] The risk for suicide attempts has been shown to be elevated 7-fold in regular users [9,10], and for completed suicides, as high as 5-fold.[11]. Identical twins studies have demonstrated a clear impact of increased depression 2-fold in the twin who uses,[12] and a large epidemiological

study conducted in the U.S. demonstrated a 2.6-fold increased risk for bipolar disorder, along with an increased risk for panic disorder with agoraphobia.[13] PTSD patients who were marijuana users have been found to make less progress in overcoming their condition and were more likely to be violent.[14] All study outcomes are obviously affected by the strength of the product prevalent at the time of the study, and by the frequency of use.

A recent article in the Journal of Addiction Research & Therapy concludes:

- According to research studies, marijuana use causes aggressive behavior, causes or exacerbates psychosis and produce paranoias. These effects have been illustrated through case studies of highly publicized incidents and heightened political profiles
- These cases contain examples of repeated illustrations of aggression, psychosis and paranoia by marijuana users and intoxication. Ultimately, without the use and intoxication of marijuana, the poor judgment and mis-perceptions displayed by these individuals would not have been present, reducing the risk for actions that result in senseless deaths.
- Import to these assertions, is that the current marijuana is far more potent in THC concentrations, the psychoactive component. Accordingly, and demonstrated in direct studies, more potent marijuana results in a greater risk for paranoid thinking and psychosis. In turn, paranoid behavior increases the risk for paranoid behaviors and predictably associated with aggressive and violent behaviors.
- Marijuana use causes violent behavior through increased aggressiveness, paranoia and personality changes (more suspicious, aggressive and anger).
- Recent illicit and "medical marijuana" (especially grown by care givers for medical marijuana) is of much higher potency and more likely to cause violent behavior.
- Marijuana use and its adverse effects should be considered in cases of acts of violence as Its role is properly assigned to its high association.
- Recognize that high potency marijuana is a predictable and preventable cause of tragic violent consequences.[15]

VIOLENCE AGAINST WOMEN

Marijuana use is associated with intimate partner violence perpetration among men arrested for domestic violence. Marijuana use is positively and significantly associated with psychological, physical, and sexual interpersonal violence perpetration, even after controlling for alcohol use and problems, antisocial personality symptoms, and relationship satisfaction.[16]

MEDIA REPORTS ON MASS VIOLENCE AND MARIJUANA USE

Recently there have been a number of media reports on marijuana and mass violence and psychosis. Exhibit 2.

THE DANGERS OF THE NEW HIGH POTENCY MARIJUANA

It has been known for 100 years that marijuana is dangerous, but it is has become that much more dangerous in the 21st century, and especially since the legalized marijuana industry has been pushing very potent products that are far more powerful than in the 1970s. They can contain up to 99% THC.[17] The metabolites of marijuana can remain in the body for weeks.

CONCLUSION

The chances for becoming violent are greatest for those who begin using marijuana at a young age or continue using marijuana for many years, or use high-potency marijuana. Research concludes that persistent use of marijuana may cause violent behavior as a result of changes in brain function due to using marijuana over many years. There is a causal relationship between exposure to cannabis and subsequent violent outcomes across a major part of the lifespan.[18]

Lowering the marijuana use in this country will substantially decrease violence in America. We must do better than our current policies that often promote marijuana use.

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EXHIBIT 1

SHOOTERS, TERRORISTS AND MASS KILLERS WHO USED MARIJUANA (MONTH/YEAR)

Complied by Parents Opposed to Pot: https://poppot.org

Marijuana has a reputation for making people relaxed, but like any addictive substance, more and more of the substance is needed to bring the feeling. The problem of violence is most likely to arise with a young age onset of marijuana usage; heavy, persistent usage, and /or high-potency marijuana usage. While around 50% of American adults have tried marijuana, only 10-13 % of adults who use marijuana on any regular basis. Marijuana- using mass killers often stand out because of the chronic and obsessive nature of their marijuana habit. A significant number of marijuana users experience psychotic symptoms. Psychotic killers with mental illness may appear different from political and religious killers, but they often share the trait of persistent, early marijuana use.

See, https://poppot.org/2021/03/23/weed-users-who-committed-or-attempted-mass-violence/

The below are only the mass shootings where marijuana use was mentioned in interviews or toxicology reports. There are many others we may not know about.

Many people associate a peaceful, summer of love mentality with marijuana. Whatever peace that comes over people cannot be sustained with continued use of marijuana. In fact, many people develop anxiety after they begin using marijuana, and start using it whenever they have anxiety thinking that more marijuana will calm them. Marijuana works similarly to other addiction substances in that higher and higher amounts are required just to feel normal. Marijuana use changes the brain in such a way that people do things that they may not have done without the drug's assault on their brains.

These violent offenders who committed or attempted mass murder were allegedly marijuana users. Some of them had psychosis and had deranged, paranoid thinking which may have been triggered by pot use. Others are not so clear, but they appeared to lack a conscience or empathy. Scientific research tells us that people who have schizophrenia and use marijuana, instead of prescribed medicines, they become more violent and vengeful than they otherwise would be.

7/4/22 Bobby Crimo of Highland Park IL shot and killed 6 and injured about 20, in a 4th of July parade and injured many. He was described in social media by a former friend as an "isolated stoner who completely lost touch with reality." https://twitter.com/mtracey/status/1544248652033654784

5/24/22 Uvalde, Texas shooter Salvador Ramos killed 21 (19 students, 2 teachers) and injured 18. He was a marijuana user, which the New York Times first reported and then took down. https://alexberenson.substack.com/p/urgent-the-new-york-times-has-edited/comments

12/27/21 - Lakewood, Colorado shooter Lyndon McLeod took out his anger at several massage parlor owners and co-workers, killing 6 people and trying to kill more. A writer who divulged his planning in books, he appears to have been a long-time pot user because a couple who bought a house from him said he had a large marijuana grow in the house. https://denver.cbslocal.com/2021/12/29/lyndon-mcleod-couple-home-denver-shooting-spree/#.Yc01SXrLOxo.twitter

11/26/21 Ethan Crumbley allegedly shot and killed 4 students at a high school Oxford, MI. He had a troubled history with his parents who had purchased the gun for him, but were known to leave him alone for long periods of time when he was young. While no pot links to the shooter have been found, Eli Crumbley, Ethan's older half-brother who had previously worked at the same diner, was once caught with marijuana at the job and "hinted that his father and stepmother had given it to him, the diner's manager told the Daily Mail. https://www.dailymail.co.uk/news/article-10281863/Neighbor-Michigan-school-shooter-15-claims-warned-authorities-neglected.html

11/20/21 Darrell Brooks, Jr, 39, drove through a Christmas parade in Waukesha, WI, killing 6, including a child. He had a long arrest record including several arrests for marijuana. Was clearly psychotic at the time. On his social media pages, Brooks describes himself as a "stoner." https://www.nationalreview.com/corner/was-the-waukesha-killer-a-stoner/ "... Brooks' attorney, public defender Anna Kees, argued that Brooks was high during the incident, noting that officers who arrested him noticed he smelled of marijuana and his eyes were red and glassy... But District Attorney Susan Opper countered that all Brooks had to do was stop the vehicle, and that even if he was high on marijuana he still committed multiple crimes..." https://www.dailymail.co.uk/news/article-10404189/Waukesha-parade-killer-Darrell-Brooks-stand-trial-murder-probable-cause-hearing-rules.html?ito=native_share_article-masthead

3/22/21 - Ahmad Al Aliwi Al-Issa shot and killed 10 in a grocery store and injured 2, in Boulder, CO. He had a history of mental illness according to the family. Although they don't mention marijuana, 80% of Boulder students allegedly use it, and it may have contributed to his mental illness.

https://www.independent.co.uk/news/world/americas/boulder-shooter-name-colorado-gunman-b1821207.html

12/19 – Grafton Thomas, who recently went after several attendees of a Hannakuh dinner at a rabbi's house in New York. Law enforcement officials said Thomas was arrested before in New York and New Jersey for alleged crimes like menacing and marijuana possession. He fits the pattern of the many who commit hate crimes and use cannabis. https://newyork.cbslocal.com/2019/12/29/new-york-monsey-synagogue-stabbing-attack-grafton-thomas-greenwood-lake/

08/19 Connor Betts gunned down 9 people in Dayton, Ohio. He was a heavy drug user and belonged to a band called Menstrual Munchies. His notebooks and diaries were very disturbing. His hallucinations began when he was in high School. Friend Ethan Kollie said they did hard drugs as well as marijuana and acid 4 or 5 times a week for two years. https://www.yahoo.com/news/2-friend-gunman-ohio-mass-184347593.html

6/19 – Samuel Little the US's most prolific murderer has confessed to killing more than 90 women (and admitted to 5 more in June 2019) over 6 decades has a history of burglary, breaking and entering, assault and battery, assault with the intent to rob, assault with a firearm, armed robbery, assault on a police officer, solicitation of prostitution, DUI, shoplifting, theft, grand theft, possession of marijuana, unlawful flight to avoid prosecution, resisting arrest, battery, false imprisonment, assault with great bodily injury, robbery, rape, and sodomy. https://www.thecut.com/2018/12/how-serial-killer-samuel-little-was-caught.html

5/31/2019 DeWayne Craddock shot and killed 12 employees in Virginia Beach, all co-workers in his municipal office. A neighbor who was interviewed said, "Craddock was in front of his apartment with two other people, smoking what smelled like marijuana," but that was the only reference to drugs we found. He was an engineer who kept to himself. https://www.cnn.com/2019/06/01/us/virginia-beach-suspect/index.html

5/7/2019 Devon Erickson, one of the two shooters at the STEM High School in Highlands Ranch, Colorado, which killed 1 and injured 8, was a daily or near daily pot user. Toxicologist Wanda Guidry said Devon Erickson was severely malnourished because he ingested cocaine, marijuana and cough syrup nearly daily, and he suffered from long-term sleep deprivation and insomnia, The Denver Post reported. "I believe it created psychiatric symptoms... disruption in mood, behavior and thinking," Guidry said of the drugs found in Erickson's system hours after the shooting."

2/19/19 Gary Martin was a disgruntled worker in Aurora, IL. He was terminated and ended up by shooting 5 people. A neighbor described him as a loner, but said they sometimes smoked weed together, as reported in the Daily Beast. https://www.thedailybeast.com/eyewitness-to-aurora-shooting-gunman-is-a-co-worker-at-henry-pratt-company

2/11/19 Camden Nicholson, age 27, allegedly killed 3, his parents and their housekeeper in a gated community of Newport Beach. The best description was in LA Times in February 19, 2019: https://www.stoppot.org/2019/02/23/orange-county-murders-horrify-friends-and-neighbors/

1/26/19 Dakota Theriot, a 21-year-old from Louisiana, allegedly killed 4: his parents, his girlfriend and her father and brother. A sheriff called the Dakota Theriot case an "extremely horrific example of failed mental health system." Five people died, but the violent outbreak follows a pattern of family murders linked to pot use and mental illness. (January 26, 2019) https://www.theadvocate.com/baton_rouge/news/crime_police/article_bef1127c-25c4-11e9-a111-8b4106437e1b.html

1/19/19 – Gregory Gago, 42, killed 4, used an axe to kill his 9-month old baby, his girlfriend, his mother and stepfather in Oregon. He grew marijuana on the family farm. https://www.dailymail.co.uk/news/article-6613055/Man-kills-parents-girlfriend-nine-month-old-daughter-rural-Oregon-home.html. The toxicology report showed he had methamphetamine, alcohol and marijuana in his system. **https://www.oregonlive.com/clackamascounty/2019/05/there-is-someone-else-alive-in-this-house-deputies-describe-saving-girl-from-killer-who-wiped-out-family.html/** (January 19, 2019)

12/12/18 Strasbourg, France shooting leaving 3 dead and at least 12 wounded: Suspect, **Cherif Chekatt**, who was on terror watch list was described by neighbors as smoking too much pot, having "lost his marbles" and had a criminal activity. https://www.telegraph.co.uk/news/2018/12/12/strasbourg-shooting-christmas-market-terror-suspect-run-killing/

11/7/18 Ian David Long, 28, was a decorated veteran with PTSD. He killed 13 people at the Borderline Bar and night Club in Thousand Oaks, CA. For a long time we suspected he was a pot user, because his unraveling sounds somewhat similar to others with PTSD who used pot and became crazed. The DA report was recently made public and it showed that marijuana was in his toxicology report. https://www.vcdistrictattorney.com/wp-content/uploads/2020/12/Borderline-Bar-Grill-OIS-Report-12-17-2020.pdf?fbclid=IwAR1BTkfN8PU1SCF2HWNHoQZEfdfZ5I4yuaiOhhtYslGTd_uQOcK4D1tjydY

7/18 Faisel Hassan, Canada: Hussain's family said he suffered from "severe mental health challenges" and struggled with psychosis and depression. Relatives said they tried their best "to seek help for him throughout his life of struggle and pain," but never imagined the "destructive" path he would choose at the end of his life. Canadian press is quiet about his marijuana use, but we suspect it. His brother died of a drug overdose and a sister died in a car crash. He killed two girls, ages 10, 18, and wounded 13 others. https://www.thestar.com/news/canada/2018/07/24/danforth-gunman-not-on-the-radar-of-national-security-agencies-safety-minister-says.html?utm_source=Twitter&utm_medium=SocialMedia&utm_campaign=930am&utm_campaign_id=Crime&utm_content=DanforthShooterReshare2018

7/18 20-year-old Emanuel Lopes shot and killed two: a policeman and a woman in Weymouth, Massachusetts. A heavy drug user, he posted photos of marijuana and a concentrate on his social media pages. The changes in his personality seem to have come over him at age 15, around the time he began using drugs. https://www.masslive.com/news/erry-2018/07/1402e009c49628/who-is-emmanuel-lopes-social-m.html

6/18 Jeremy Webster shot 4 people in Westminster, Colorado, with road rage believed to be the motive. He went after a woman, her two sons and a bystander. He killed the 13 year old. He was licensed to work at medical marijuana dispensary but we don't know much more. **https://heavy.com/news/2018/06/jeremy-john-webster/**

4/22/18 3 a.m. (two days after 4-20 celebrations) **Travis Reinking**, the man who shot and killed 4 people in a Tennessee Waffle House, had mental illness and allegedly suffered from schizophrenia. (It is not clear which came first the pot use or the schizophrenia, but we know that marijuana worsens schizophrenia and compromises the treatment of the disease.) Shortly before the incident, Reinking wrote in a journal about plans to drive to Colorado, describing a life in which he would hang out with friends, smoke marijuana, hike in the mountains and "repossess" cars and houses so that he would not have to work, a prosecutor said. https://apnews.com/article/nashville-travis-reinking-6839ec09d4c4a743bc5c31c54b918290

2/14/18 Nikolas Cruz, the Parkland shooter, had a troubled life and developmental disabilities. Yet he took lots of marijuana and Xanax to quiet the voices in his head. While this doesn't show cause and effect, marijuana didn't help his troubles and most likely exacerbated them. He killed 17 students, injured 17, at Marjory Stoneham Douglas High School Parkland, FL At his trial, he said: "I hate drugs, and I believe this country would do better if everyone would stop smoking marijuana and doing all these drugs and causing racism and violence out in the streets." https://www.cnn.com/2021/10/20/us/nikolas-cruz-parkland-shooting-guilty/index.html

11/17 Veteran Shane Kirk who suffered from PTSD, was using marijuana to wean himself from depression medication. Efforts to get him help from the VA failed. He shot and killed 2: his stepfather and wife in front of the three children. He had just returned from Colorado.

11/17 Kevin Neal a pot farmer in Northern Cal shot his wife, neighbors then went on a rampage in Red Bluff, CA shooting and killing 4, hitting a total of 14 people including children at a school. (Had history of psychosis and mental illness. The toxicology reports that only THC was in his blood.

11/17: Devin Patrick Kelley shot 36 people – killing 26 at the First Baptist Church in Sutherland Springs, TX. The toxicology report showed presence of marijuana. He may have had a criminal arrest for marijuana possession in 2013, although the source is not clear. He was court-martialed from Air Force in 2012, following assaulting his spouse and child. https://www.nbcnews.com/storyline/texas-church-shooting/autopsy-confirms-sutherland-springs-church-gunman-died-suicide-n888051

10/17 Malik Murphy, aged 20, murdered 2: his brother, Noah, 7 and his sister, Sophia, 5, as the family was sleeping, in Colorado Springs. Murphy and his father Vinnie then got into a fight. As Malik tried to stab his father, another brother called 911. One of the first reports of his erratic behavior: "The parents pinpoint a specific day at school when Malik was 16. Melissa (the mom) says he found a cell phone and instead of returning it to the lost and found, he destroyed it. School officials searched his backpack they found a kitchen steak knife, a little bit of marijuana, and a Bic writing pen he had taken to use to smoke the marijuana

out of it. https://www.kktv.com/content/news/Parents-of-son-who-murdered-his-two-younger-siblings-speak-out-461188133.html

7/17 Cosmo DiNardo, a 20-year-old man lured four other young men to his farm where he grew pot in Pennsylvania, for the purpose of selling marijuana to them. He killed all 4 of the men, ages 19-22 and buried them on the property. A year earlier he had been in mental health treatment for schizophrenia. https://www.nytimes.com/2017/07/17/us/bucks-county-pennsylvania-murders-cosmo-dinardo-.html

6/17 James Hodgkinson went from Illinois to Alexandria, Virginia, to protest. He shot at a baseball practice with Republicans, severely wounding Congressman Steve Scalise and four others. A Bernie Sanders supporter with domestic violence/anger issues, he advocated for the legalization of marijuana (suggests but doesn't prove he was a user) in the Press. https://heavy.com/news/2017/06/james-hodgkinson-alexandria-gop-baseball-shooter-shooting-gunman-identified-illinois/

5/17: Salman Abedi the Manchester England bomber had calls about his erratic behavior made around five years before the bombing to Police after Abedi left school, where he was known to have been a marijuana user mixed with gangs in south Manchester. He killed 22 people. https://www.telegraph.co.uk/news/2017/05/26/everything-know-manchester-suicide-bomber-salman-abedi/

5/17 Jeremy Christian knifed and killed 2 men who were defending the Muslim women he was attacking on public transportation in Portland, Oregon. He had declared his love for cannabis and comic books on Facebook. Christian's behavior was consistent with marijuana-induced psychosis. His psych evaluation showed no consistent ideology but his only goal was to be a cannabis farmer in Brazil. https://drive.google.com/file/d/1PfNc0guWsPzGIHYErvUUSXQen7A1Iy4c/view

5/17: Richard Rojas was a troubled man, veteran, with a history of drunken driving bolted from his maroon Honda Accord after his deadly midday rampage in Times Square that left one person dead and 20 others injured. He later told another officer, "I smoked marijuana. I laced the marijuana with PCP," according to the complaint. https://www.dailymail.co.uk/news/article-4522752/Troubled-history-Times-Square-driver-Richard-Rojas.html

10/16 Steven Bourgoin, 36-year-old victim of PTSD. He felt he needed marijuana to be calm, but had a psychotic break. One day he sought but couldn't get psychiatric help in Vermont. He was speeding on a highway, going the wrong way. He killed 5, and the toxicology report showed large amount of THC in his system. https://vtdigger.org/2017/11/28/driver-crash-killed-5-teens-elevated-thc-toxicology-report-shows

9/16: WA Cascades Mall Shooter Arcan Cetin opened fire on random people and killed 5. He blamed cannabis for his behavior. He was only 20, used marijuana and drugs in HS and suffered from PTSD. https://komonews.com/news/local/accused-mall-shooter-faces-murder-charges-bail-set-at-2-million

9/16 Nathan Desai opened fire at a Texas mall. He shot and injured 9. He had fallen apart after the collapse of his law firm and neighbors noticed heavy smell of marijuana from his apartment. Fortunately, none of his victims died. https://ninjapundit.blogspot.com/2016/09/nathan-desai-disgruntled-lawyer-houston.html

7/16 Mohammed Bouhlel, murdered 86 people on July 14, 2016. He plowed into the crowd with a truck on Bastille Day in Nice, France, on the Promenade des Anglais while people celebrated the national holiday. He used very strong cannabis while in high school and had his first psychotic break at age 19. https://www.mirror.co.uk/news/world-news/nice-massacre-monster-mohamed-bouhlel-8436103

7/16 A Japanese man stabbed and killed 19 disabled people at facility in Japan. His name was **Satoshi Uematsu** https://www.japantimes.co.jp/news/2016/08/08/national/crime-legal/sagamihara-massacre-suspect-tests-positive-marijuana-sources/#.Wy_WEyAnaUk
He had been alternately diagnosed with bipolar disorder and marijuana-induced psychosis.

6/16 Omar Mateen Orlando night club shooter admitted to using marijuana and steroids. Clearly his anger and behavior problems went beyond pot use and went back to a very young age, including an incident in second grade when he sang "marijuana, marijuana" in school, instead of "mariposa, mariposa." He killed 49 people and injured 53. (The two ABC News reports we used for this information is no longer available online.)

11/15: Brahim Abdeslam, leader of the bombings at the Bataclan Night Club in Paris was a known marijuana user whose wife said it made him lazy. He and his brother used drugs in his café in Molenbeek Brussels, which was overrun by the smell of marijuana. The attackers killed 130 people, including 90 at the Bataclan theatre. Another 416 people were injured, almost 100 critically. https://www.nzherald.co.nz/world/paris-terror-attacks-ex-wife-of-suicide-bomber-calls-him-a-lazy-pothead/E3HO7P7OV5TJEBN7E35JK5EK4E/?c_id=2&objectid=11547260

11/15: Robert Dear, Planned Parenthood gunman in Colorado moved to CO from North Carolina for marijuana. He shot and killed three people. Forensic psychiatrists declared him unable to stand trial. https://www.nytimes.com/2015/12/02/us/robert-dear-planned-parenthood-shooting.html

10/15 Only 3 weeks earlier, another Colorado Springs shooter named **Noah Harpham** suddenly went psychotic and killed 3. His family was trying to get him into treatment. Marijuana was the only drug in his toxicology report. He suffered from both marijuana and alcohol addiction, and marijuana put him into psychosis http://www.westword.com/news/noah-harpham-killings-police-explain-10-minute-response-delay-after-first-911-call-7306531

8/15: Jody Herring, lost custody of her child because she was erratic and tested positive for THC. She said she took THC pills for pain. She shot and killed a Vermont Social worker and 3 others who were her relatives.

7/15: Chattanooga TN shooter **Mohammad Abdulazeez** killed 4 Marines and a sailor, was a heavy user of marijuana. He had been diagnosed as bipolar. https://www.washingtonpost.com/politics/chattanooga-shooter-an-aimless-young-man-who-smoked-dope-and-shot-guns/2015/07/18/c213f6a6-2d7d-11e5-a5ea-cf74396e59ec_story.html?utm_term=.9081f0e035fb

6/15 Tunisian beach shooter **Seiffeddine Rezgui**, 23, killed 39 tourists on the beach, many of them British. In addition, he injured 36. According to British journalist Peter Hitchens, he was a cannabis user. https://hitchensblog.mailonsunday.co.uk/2016/07/is-the-latest-mass-murder-really-incomprehensible-.html

6/15 Dylann Roof who shot and killed 9 members of a church in Charleston, South Carolina, was an early marijuana user at age 12, and did other drugs. He was diagnosed with schizophrenia. https://www.wlox.com/story/35435134/new-dylann-roof-documents-unsealed-im-just-a-sociopath/

3/15 Robert Durst arrested - killed 3 or 4 people, including his wife and Susan Berman, a confidant who knew his history. The incidents happened over several years and he always used marijuana. He is a wealthy guy who always evaded police and a true psychopath. https://nypost.com/2015/03/17/robert-durst-had-pot-38-caliber-revolver-when-he-was-arrested/

1/15 Charlie Hebdo murders. A Charlie Hebdo massacre suspect was a pot-smoking, pizza-delivering "loser" before joining the terror group. They killed 12 people and injured 13. http://www.nydailynews.com/news/world/charlie-hebdo-massacre-suspect-pot-smoking-loser-lawy-article-1.2070082

1/15 In South Africa, 20-year-old **Henri Van Breda** murdered his wealthy parents and brother with an axe. His 16-year-old sister survived an attack with brutal head and neck injuries. Initially, Henri, the guilty son, claimed to have been attacked, and that he was not the attacker. Investigations led to the fact that the son was high at the time. He's now in prison. https://www.dailymail.co.uk/news/article-2954720/South-African-student-survived-triple-axe-murder-family-high-drugs-time.html

10/14 Jaylen Fryberg shot four friends in high school cafeteria and turned on himself. His Twitter account exposed that his girlfriend broke up with him because of his marijuana use which she thought pot made him stupid. He admitted that he would need to smoke a whole lot of weed to get over her breaking up with him. https://www.nbcnews.com/storyline/marysville-school-shooting/washington-school-shooter-jaylen-fryberg-happy-popular-students-n233506

10/14 Ottawa terrorist **Michael Zehaf-Bibeau** shot and killed one security officer before he was killed. He had extensive drug history which included much marijuana, as well as PCP: http://nationalpost.com/news/canada/alleged-ottawa-shooter-apparently-had-criminal-past-in-quebec-was-repeatedly-brought-in-on-drug-charges

4/14: Richard Kirk, Colorado father of 3, shot his wife in the head while she is talking to the 911 operator. She explained on the phone that he had eaten a marijuana-laced candy and wanted her to kill him. The defendant was clearly influenced by marijuana-induced psychosis. https://www.theguardian.com/society/2016/may/11/family-sues-marijuana-dispensary-murder-colorado

2/14 Ashton Sachs drove from Seattle to southern California to murder his parents. He tried to murder his brother but left him badly injured. A heavy marijuana user, he had made previous suicide attempts, but blamed his parents for messing up his life. He was supposed to be attending community college in Seattle. Instead of going to class, he smoked pot and played video games. https://www.dailymail.co.uk/news/article-3842272/Orange-County-man-murdered-wealthy-parents-paralyzed-eight-year-old-brother-shooting-attack-luxury-family-home-sentenced-life-prison.html

2014, 2013, 2003 Charles Severance, a man who murdered 3 people in Alexandria, Virginia, by showing up at the doors in daylight, was a frequent political candidate and advocate for legalizing marijuana since the 1990s. http://alexandria.wusa9.com/news/news/1199171-who-charles-severance. The murders took place between 2003 and 2014. He clearly suffered from mental health issues and psychosis consistent with years of marijuana use. https://www.nbcwashington.com/news/local/accused-serial-killer-charles-severance/63218/

1/14: Mall in Columbia (MD) shooter marijuana user **Darion Aguilar** killed 2 and then himself. https://www.washingtonpost.com/local/crime/2014/01/29/a936f5ca-8932-11e3-a5bd-844629433ba3_story.html?_=ddid-6-1641336960

4/13: Boston Marathon bombing, both **Tsarnaev brothers** were heavy marijuana users. They killed 3 people and injured 264. After the incident, it was discovered that Tamerlan Tsarnaev was probably connected to the murders of two men, former friends who bodies were covered in marijuana. https://www3.bostonglobe.com//Page/Boston/2011-2020/WebGraphics/Metro/BostonGlobe.com/2013/12/15tsarnaev/tsarnaev.html?arc404=true

12/12: Jacob T Roberts in Clackamas Town Center OR killed 2 seriously injured 1 and then killed himself a chronic marijuana since age 16. https://www.oregonlive.com/forest-grove/2013/05/clackamas_town_center_shooting.html

7/12: Aurora, Colorado theater shooter, **James Holmes**, was a heavy marijuana user. As the New York Post reported, a neighbor said that he would see him smoking pot by the garbage bins of apartment complex. https://nypost.com/2012/07/21/massacre-suspect-trolled-web-for-sex/#ixzz21GIfphdV. It happened the summer before the vote to legalize, but Coloradans still voted to legalize and didn't seem to notice the connection. He killed 12 and injured 70.

1/11: Tucson Massacre convict **Jared Loughner** was a habitual pot user. He failed a recruitment in the military because of excessive pot use. He killed 6 people and injured 9, including Rep Gabby Giffords. http://content.time.com/time/nation/article/0,8599,2041634,00.html

3/10: Pentagon shooter **John Bedell**'s had a history of mental illness and marijuana abuse. He was given a medical marijuana card when it was bad advice. http://voices.washingtonpost.com/postpartisan/2010/03/the_pentagon_shooter_and_medic.html

5/06 Michael Kennedy, 18, ambushed a police station in Chantilly, Virginia, shooting several rounds and killing two police officers. His father, was a marijuana user and gun collector who gave his son marijuana. A heavy pot user, the son Michael was very erratic and crazy. https://www.washingtonpost.com/wp-dyn/content/article/2007/08/07/AR2007080700885.html

3/21/05 Red Lake Shootings, killed 7 and injured 5 more. It was posted on social media that **Paul Weise**, the 16-year-old school shooter was a marijuana user. He was a member of the Red Lake Tribe and it occurred on the Red Lake Reservation in Minnesota. https://en.wikipedia.org/wiki/Red_Lake_shootings

7/96 Eric Rudolph, the first abortion clinic terrorist was discharged from army for marijuana use. He killed 2 and injured 120 others. https://www.nytimes.com/2003/06/01/us/suspect-in-96-olympic-bombing-and-3-other-attacks-is-caught.html

4/96 Timothy McVeigh, the Oklahoma City bomber, killed 168. He was known to be a marijuana user, a vet and man with strong anti-government ideology.

1/93 The Brown's Chicken murders in Palatine, IL killed 8 people. **Juan Luna and Jim Degorski** smoked marijuana afterwards. "A woman reported that they drove to her Elgin townhouse where she said the trio smoked marijuana and split the money the men said they had taken from Brown's." Another article says they "smoked a couple of bowls" after the murders. https://www.chicagotribune.com/news/ct-xpm-2002-06-09-0206090449-story.html

10/91 George Hennard who drove a pickup into Luby's cafeteria in Killeen, Texas, and then shot people, killing 23 and himself. He had a previous marijuana arrest in 1989 and underwent substance abuse treatment. https://en.wikipedia.org/wiki/Luby%27s_shooting

1984-1985 Richard Ramirez was convicted of murdering 13 in California. He began smoking marijuana at age 10 with an older cousin who filled his mind lurid stories idealizing violence. https://en.wikipedia.org/wiki/Richard_Ramirez

1984 Suzan and Michael Bear Carson were convicted of 3 bizarre murders on "Murder Mountain" in California. https://www.thedailybeast.com/witch-killers-family-keep-them-in-jail Michael was a stay-at-home marijuana dealer in suburban Phoenix with a degree in Chinese philosophy. His daughter said: "No one could have foreseen this." Typically, your Jewish father doesn't convert to Islam, then to radical Islam, and change it to some weird religion where they grow pot and kill gays.

1983 Bruce Blackman, a Canadian, killed 6 family members in 1983 while high on marijuana, and having psychotic break. He was a heavy user for several years possibly triggering his paranoid schizophrenia. According to court testimony Blackman was on an intense stone from eating and smoking marijuana. Bruce Blackman, British Columbia, killed 6 in his family, on an intense marijuana psychosis, 1983 https://www.reddit.com/r/TrueCrime/comments/5ggm3c/bruce_blackman_familicide/

1978 Stephan, the son of **Jim Jones**, who led 400 to suicide at Jonestown in Guyana, confirmed that Jones used LSD and marijuana. https://simple.wikipedia.org/wiki/Jim_Jones

EXHIBIT 2 - MEDIA REPORTS

See the story on June 1 about pot psychosis and denial. https://video.foxnews.com/v/6307173357112/#sp=show-clips

See the story on May 31 on marijuana and mass killings. https://www.mediamatters.org/fox-news/laura-ingraham-blames-marijuana-mass-shootings

Here is the video of an interview with Dr. Daniel Amen a Child Psychiatrist. Dr. Amen mentions the brain damage caused by marijuana. https://twitter.com/UnfilteredOnFox/status/1530723097086763009?fbclid=IwAR0E6FGW17sB66lHnoBDzwcy-NNli-OSxp2Ld-zb1266DKpHPfS7aBaOllE

Alex Berenson who has appeared on national media has written a book that documents that marijuana causes psychosis and violence. https://video.foxnews.com/v/6078145753001#sp=show-clips

His book is available on Amazon. https://www.amazon.com/Tell-Your-Children-Marijuana-Violence/dp/1982103671

See, "Chronic Marijuana Use and Violence – Linked?" https://amac.us/chronic-marijuana-use-and-violence-linked/

See, "Blame Legalized Marijuana for Increased Mass Shootings" https://cloudflarepoc.newsmax.com/ronaldkessler/booker-harris-sanders-thc/2022/06/01/id/1072447/



Americans Against Legalizing Marijuana

AALM.info

We advocate for No Use of Illegal Drugs and No Illegal Use of Legal Drugs

AALM Recommended Marijuana Legislation

January 2, 2023

MODEL MARIJUANA/CANNABIS RIGHT TO KNOW BILL STATEMENT

MODEL MARIJUANA/CANNABIS RIGHT TO KNOW BILL STATEMENT

This bill is concerned with all cannabis plant derived products as marijuana, cannabidiol (CBD) and Delta 8-THC, Delta 9-THC, Delta 10-THC and THC-O-Acetate and tetrahydrocannabivarin (THCV). Hereinafter these will be referred to as "marijuana/cannabis."

The states that have legalized marijuana/cannabis products for medicine or recreation have done very little to provide the warnings and the other consumer protections that normally attach to dangerous products that are consumed for recreation or as a food supplement or used as medicines. The harms of marijuana/cannabis justify warnings to the consumers of these products. They have a right to know.

This bill requires warnings on all marijuana/cannabis product labels and marijuana/cannabis advertising and more detailed package inserts on all marijuana/cannabis products. Warnings should be developed carefully to determine who is the audience and that it should be audience appropriate. All reasonable risks and hazards need to be considered. This can include reports of injuries, prior claims, consumer complaints, research findings and expert analysis.

Vagueness may be overcome when read as whole the warning communicates meaning as to risks that cannot be mistaken. Its adequacy may be based on warning of most likely risks.

Vaping Devices

We should require labels on vaping devices. People throw out the packaging and hold on to the device for long periods of time. Also, a warning on the device would let parents and other adults know if they found one in a teen's possessions.

The Science Supporting Warnings on Marijuana/Cannabis Products

Research demonstrates that mandating warning labels on marijuana/cannabis products may increase exposure to messages communicating the health risks of marijuana/cannabis, especially among frequent consumers and those who access the "legal" market.[1]

Awareness of specific warning messages was higher in jurisdictions where the associated warning was mandated on packages, suggesting that warning labels may improve knowledge of marijuana/cannabis-related health risks.[2]

The bill provides specific warnings. The states should also consider creating additional warnings on the following subjects:

1. Damage to Mental Ability
2. Cardiac and Lung Damage
3. Risks of Using Marijuana/cannabis as Medicine
4. Risks of Use of cannabidiol (CBD)
5. Risks of High Potency Marijuana.
6. Risks of Violence
7. Post-Traumatic Stress Disorder (PTSD)
8. Harmful Drug and Medicine Interactions.
9. Risks of Secondhand Marijuana Smoke
10. Risks of Making Glaucoma Worse
11. Risks of Autism
12. Risks of Opioid Dependance
13. Risks of Allergic Reaction
14. Risks of sleep disturbance
15. Risks of Use with Epilepsy
16. Risks of Use and Stroke
17. Risks of Injury to Older Adults

See the attached paper entitled "Consumer Warnings on the Risks of Marijuana Products Are Required" that provides the science behind these warnings. The CDC and the FDA have also issued many warnings about marijuana/cannabis use.[3]

The states in addition to the label warnings should create package inserts that provide details on the marijuana/cannabis products. Good models are the FDA package inserts. The labeling of a medicine should at a minimum include:

1. Indications and Usage
2. Dosage and Administration
3. Dosage Forms and Strengths
4. Contraindications
5. Warnings and Precautions
6. Adverse Reactions
7. Use in Specific Populations
8. Drug Abuse and Dependence
9. Description
10. Clinical pharmacology
11. Non clinical Toxicology
12. Clinical Studies
13. How supplied/storage and Handling
14. Overdosage
15. Patient Counseling Information[4]

Footnotes

1. Source: Original quantitative research - Noticing of cannabis health warning labels in Canada and the US, Samantha Goodman, PhD; David Hammond, PhD, *https://www.canada.ca/en/public-health/services/reports-publications/health-promotion-chronic-disease-prevention-canada-research-policy-practice/vol-41-no-7-8-2021/cannabis-health-warning-canada-us.html*

2. Do Mandatory Health Warning Labels on Consumer Products Increase Recall of the Health Risks of Cannabis? Samantha Goodman, Cesar Leos-Toro &David Hammond, Substance Use and Misuse, Published online: 06 Jan 2022; *https://www.tandfonline.com/doi/abs/10.1080/10826084.2021.2023186?journalCode=isum20*

3. *https://www.cdc.gov/marijuana/index.htm*
https://www.cdc.gov/marijuana/health-effects/addiction.html
https://www.cdc.gov/marijuana/health-effects/brain-health.html
https://www.cdc.gov/marijuana/health-effects/cancer.html
https://www.cdc.gov/marijuana/health-effects/driving.html
https://www.cdc.gov/marijuana/health-effects/heart-health.html
https://www.cdc.gov/marijuana/health-effects/lung-health.html
https://www.cdc.gov/marijuana/health-effects/mental-health.html
https://www.cdc.gov/marijuana/health-effects/chronic-pain.html
https://www.cdc.gov/marijuana/health-effects/poisoning.html
https://www.cdc.gov/marijuana/health-effects/risk-of-other-drugs.html
https://www.cdc.gov/marijuana/health-effects/second-hand-smoke.html
https://www.cdc.gov/marijuana/pdf/marijuana-pregnancy-508.pdf

https://www.fda.gov/consumers/consumer-updates/what-you-need-know-and-what-were-working-find-out-about-products-containing-cannabis-or-cannabis

https://www.fda.gov/consumers/consumer-updates/what-you-should-know-about-using-cannabis-including-cbd-when-pregnant-or-breastfeeding

https://www.fda.gov/consumers/consumer-updates/some-medicines-and-driving-don't-mix

https://www.nccih.nih.gov/health/cannabis-marijuana-and-cannabinoids-what-you-need-to-know

https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc

4. 21 U.S.C.A. § 321(m) and (n)(labeling cannot be misleading and must reveal facts with respect to consequences which may result from the use of the drug)

End note

The best way for people to avoid these harms is to avoid marijuana and other cannabis products. This statement does not endorse marijuana or cannabis use in any form including its legalization and commercialization.

MODEL MARIJUANA/CANNABIS RIGHT TO KNOW BILL

(Statute title and citation)
The statute shall be placed in the laws regarding cannabis or health.

Packaging and Labeling; Form and Contents; Ingredient Descriptions; Schedule I Controlled Substance Statement and Warnings on All Mediums of Communication

(a) Prior to delivery or sale at a retailer, marijuana/cannabis products shall be labeled and placed in a tamper-evident, child-resistant package and shall include a unique identifier for the purposes of identifying and tracking marijuana/cannabis products. If the marijuana/cannabis product contains multiple servings, the package shall also be resealable. All vaping devices shall have warnings on the device.
(b) Packages and labels shall not be made to be attractive to children.
(c) All marijuana/cannabis product labels and package inserts, and advertising on all mediums of communication, shall include the following information prominently displayed in a clear and legible fashion in accordance with the requirements, including font size, prescribed by the department:
(1) The following statements, in bold print:
(A) For marijuana/cannabis:

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE PHYSICAL AND MENTAL HEALTH PROBLEMS FOR USERS.

WARNING: THIS PACKAGE CONTAINS MARIJUANA/CANNABIS, A SCHEDULE I CONTROLLED SUBSTANCE. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

WARNING: THE SMOKE FROM MARIJUANA/CANNABIS IS HARMFUL AND MAY CAUSE CANCER.

WARNING: DO NOT USE IF PREGNANT OR BREASTFEEDING. SUBSTANCES IN MARIJUANA/CANNABIS ARE TRANSFERRED FROM THE MOTHER TO CHILD AND CAN HARM YOUR BABY.

WARNING: DO NOT DRIVE OR OPERATE HEAVY EQUIPMENT AFTER USING MARIJUANA/CANNABIS. MARIJUANA/CANNABIS CAN CAUSE DROWSINESS AND IMPAIR YOUR ABILITY TO CONCENTRATE AND MAKE QUICK DECISIONS.

WARNING: FREQUENT AND PROLONGED USE OF MARIJUANA/CANNABIS CAN CONTRIBUTE TO MENTAL HEALTH PROBLEMS OVER TIME. DAILY OR NEAR-DAILY USE INCREASES THE RISK OF DEPENDENCE AND MAY BRING ON OR WORSEN DISORDERS RELATED TO ANXIETY AND DEPRESSION.

WARNING: ADOLESCENTS AND YOUNG ADULTS ARE AT GREATER RISK OF HARMS FROM MARIJUANA/CANNABIS. DAILY OR NEAR-DAILY USE OVER A PROLONGED PERIOD OF TIME CAN HARM BRAIN DEVELOPMENT AND FUNCTION.

WARNING: THE HIGHER THE THC CONTENT OF A PRODUCT, THE MORE LIKELY YOU ARE TO EXPERIENCE ADVERSE EFFECTS AND GREATER LEVELS OF IMPAIRMENT. THC CAN CAUSE ANXIETY AND IMPAIR MEMORY AND CONCENTRATION.

WARNING: IT CAN TAKE UP TO 4 HOURS TO FEEL THE FULL EFFECTS FROM EATING OR DRINKING MARIJUANA/CANNABIS. CONSUMING MORE WITHIN THIS TIME PERIOD CAN RESULT IN ADVERSE EFFECTS THAT MAY REQUIRE MEDICAL ATTENTION.

WARNING: THE EFFECTS FROM EATING OR DRINKING MARIJUANA/CANNABIS CAN BE LONG-LASTING. THE EFFECTS CAN LAST BETWEEN 6 AND 12 HOURS FOLLOWING USE.

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE PSYCHOTIC SYMPTOMS AND/OR PSYCHOTIC DISORDER (DELUSIONS, HALLUCINATIONS, OR DIFFICULTY DISTINGUISHING REALITY OR OTHER MENTAL HEALTH SYMPTOMS/PROBLEMS SUCH AS DEPRESSION AND SUICIDAL IDEATION

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE CANNABIS HYPEREMESIS SYNDROME (CHS) (UNCONTROLLED AND REPETITIVE VOMITING)

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE CANNABIS USE DISORDER OR DEPENDENCE, INCLUDING PHYSICAL AND PSYCHOLOGICAL DEPENDENCE.

WARNING: MARIJUANA USE IS NOT APPROVED BY THE FDA AS BEING SAFE OR EFFECTIVE AS A MEDICINE.

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE DAMAGE TO REPRODUCTIVE HEALTH IN MEN AND WOMEN

The marijuana/cannabis health warning message should also apply to marijuana/cannabis products that are marijuana/cannabis topicals.

WARNING: DO NOT SWALLOW OR APPLY INTERNALLY OR TO BROKEN, IRRITATED OR ITCHING SKIN. THERE MAY BE HEALTH EFFECTS AND RISKS ASSOCIATED WITH MARIJUANA/ CANNABIS TOPICALS THAT ARE NOT FULLY KNOWN OR UNDERSTOOD.

For a "medicinal" marijuana/cannabis product sold at a retailer, the following statement should be added.

FOR MEDICAL USE ONLY

(B) For marijuana/cannabis products:

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE PHYSICAL AND MENTAL HEALTH PROBLEMS FOR USERS.

WARNING: THIS PACKAGE CONTAINS MARIJUANA/CANNABIS, A SCHEDULE I CONTROLLED SUBSTANCE. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

WARNING: THE SMOKE FROM MARIJUANA/ CANNABIS IS HARMFUL AND MAY CAUSE CANCER

WARNING: DO NOT USE IF PREGNANT OR BREASTFEEDING. SUBSTANCES IN MARIJUANA/ CANNABIS ARE TRANSFERRED FROM THE MOTHER TO CHILD AND CAN HARM YOUR BABY.

WARNING: DO NOT DRIVE OR OPERATE HEAVY EQUIPMENT AFTER USING MARIJUANA/ CANNABIS. MARIJUANA/CANNABIS CAN CAUSE DROWSINESS AND IMPAIR YOUR ABILITY TO CONCENTRATE AND MAKE QUICK DECISIONS.

WARNING: FREQUENT AND PROLONGED USE OF MARIJUANA/CANNABIS CONTAINING THC CAN CONTRIBUTE TO MENTAL HEALTH PROBLEMS OVER TIME. DAILY OR NEAR-DAILY USE INCREASES THE RISK OF DEPENDENCE AND MAY BRING ON OR WORSEN DISORDERS RELATED TO ANXIETY AND DEPRESSION.

WARNING: ADOLESCENTS AND YOUNG ADULTS ARE AT GREATER RISK OF HARMS FROM MARIJUANA/CANNABIS. DAILY OR NEAR-DAILY USE OVER A PROLONGED PERIOD OF TIME CAN HARM BRAIN DEVELOPMENT AND FUNCTION.

WARNING: THE HIGHER THE THC CONTENT OF A PRODUCT, THE MORE LIKELY YOU ARE TO EXPERIENCE ADVERSE EFFECTS AND GREATER LEVELS OF IMPAIRMENT. THC CAN CAUSE ANXIETY AND IMPAIR MEMORY AND CONCENTRATION.

WARNING: IT CAN TAKE UP TO 4 HOURS TO FEEL THE FULL EFFECTS FROM EATING OR DRINKING MARIJUANA/CANNABIS. CONSUMING MORE WITHIN THIS TIME PERIOD CAN RESULT IN ADVERSE EFFECTS THAT MAY REQUIRE MEDICAL ATTENTION.

WARNING: THE EFFECTS FROM EATING OR DRINKING MARIJUANA/CANNABIS CAN BE LONG-LASTING. THE EFFECTS CAN LAST BETWEEN 6 AND 12 HOURS FOLLOWING USE.

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE PSYCHOTIC SYMPTOMS AND/ OR PSYCHOTIC DISORDER (DELUSIONS, HALLUCINATIONS, OR DIFFICULTY DISTINGUISHING REALITY OR OTHER MENTAL HEALTH SYMPTOMS/PROBLEMS SUCH AS DEPRESSION AND SUICIDAL IDEATION

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE CANNABIS HYPEREMESIS SYNDROME (CHS) (UNCONTROLLED AND REPETITIVE VOMITING)

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE MARIJUANA/CANNABIS USE DISORDER/ DEPENDENCE, INCLUDING PHYSICAL AND PSYCHOLOGICAL DEPENDENCE.

WARNING: MARIJUANA USE IS NOT APPROVED BY THE FDA AS BEING SAFE OR EFFECTIVE AS A MEDICINE.

WARNING: MARIJUANA/CANNABIS USE MAY CAUSE DAMAGE TO REPRODUCTIVE HEALTH IN MEN AND WOMEN

The marijuana/cannabis health warning message should also apply to marijuana/cannabis products that are marijuana/cannabis topicals.

WARNING: DO NOT SWALLOW OR APPLY INTERNALLY OR TO BROKEN, IRRITATED OR ITCHING SKIN. THERE MAY BE HEALTH EFFECTS AND RISKS ASSOCIATED WITH MARIJUANA/ CANNABIS TOPICALS THAT ARE NOT FULLY KNOWN OR UNDERSTOOD.

For a medicinal marijuana/cannabis product sold at a retailer, the statement shall add:

FOR MEDICAL USE ONLY

(2) The Department shall also consider creating warnings on the following subjects:

1. Damage to Mental Ability
2. Cardiac and Lung Damage
3. Risks of Using Marijuana/cannabis as Medicine
4. Risks of Use of Cannabidiol (CBD)
5. Risks of High Potency Marijuana/cannabis.
6. Risks of Violence
7. Post-Traumatic Stress Disorder (PTSD)
8. Harmful Drug and Medicine Interactions.
9. Risks of Secondhand Marijuana Smoke
10. Risks of Making Glaucoma Worse
11. Risks of Autism
12. Risks of Opioid Dependance
13. Risks of Allergic Reaction
14. Risks of sleep disturbance.
15. Risks of Use with Epilepsy
16. Risks of Use and Stroke
17. Risks of Injury to Older Adults

(3) The Department in addition to the label warnings shall create package inserts that provide details on the marijuana/cannabis products used as medicine and should at a minimum include:

1. Indications and Usage
2. Dosage and Administration
3. Dosage Forms and Strengths
4. Contraindications
5. Warnings and Precautions
6. Adverse Reactions
7. Use in Specific Populations
8. Drug Abuse and Dependence
9. Description
10. Clinical pharmacology
11. Non clinical Toxicology
12. Clinical Studies
13. How supplied/storage and Handling
14. Overdosage
15. Patient Counseling Information. 21 U.S.C.A. § 321(m) and (n) (labeling cannot be misleading and must reveal facts with respect to consequences which may result from the use of the drug)

(4) For packages containing only dried flower, the net weight of marijuana/cannabis in the package.

A. Identification of the type of marijuana/ cannabis product and the date of packaging.
B. The appellation of origin, if any.
C. List of pharmacologically active ingredients, including, but not limited to, tetrahydrocannabinol (THC), cannabidiol (CBD), and other cannabinoid content, the THC and other cannabinoid amount in milligrams per serving, servings per package, and the THC and other cannabinoid amount in milligrams for the package total.
D. A warning if nuts or other known allergens are used.
E. Information associated with the unique identifier issued by the department.

(d) The Department shall insure that the warning on marijuana/cannabis use by the American College of Obstetricians and Gynecologists is posted in every marijuana/cannabis store and all medical offices including hospitals. Medical and retail marijuana/cannabis stores shall post warnings in writing to be clearly seen by individuals purchasing marijuana/cannabis. That warning shall state:

THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS RECOMMENDS THE FOLLOWING:

BEFORE PREGNANCY AND IN EARLY PREGNANCY, ALL WOMEN SHOULD BE ASKED ABOUT THEIR USE OF TOBACCO, ALCOHOL, AND OTHER DRUGS, INCLUDING MARIJUANA AND OTHER MEDICATIONS USED FOR NONMEDICAL REASONS.

WOMEN REPORTING MARIJUANA USE SHOULD BE COUNSELED ABOUT CONCERNS REGARDING POTENTIAL ADVERSE HEALTH CONSEQUENCES OF CONTINUED USE DURING PREGNANCY.

WOMEN WHO ARE PREGNANT OR CONTEMPLATING PREGNANCY SHOULD BE ENCOURAGED TO DISCONTINUE MARIJUANA USE.

PREGNANT WOMEN OR WOMEN CONTEMPLATING PREGNANCY SHOULD BE ENCOURAGED TO DISCONTINUE USE OF MARIJUANA FOR MEDICINAL PURPOSES IN FAVOR OF AN ALTERNATIVE THERAPY FOR WHICH THERE ARE BETTER PREGNANCY-SPECIFIC SAFETY DATA.

THERE ARE INSUFFICIENT DATA TO EVALUATE THE EFFECTS OF MARIJUANA USE ON INFANTS DURING LACTATION AND BREASTFEEDING, AND IN THE ABSENCE OF SUCH DATA, MARIJUANA USE IS DISCOURAGED.

https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2017/10/marijuana-use-during-pregnancy-and-lactation

(e) Only generic food names may be used to describe the ingredients in edible marijuana/cannabis products.

(f) Marijuana/cannabis beverages may be packaged in glass containers that are clear or any color.

MODEL MARIJUANA/CANNABIS RESEARCH BILL STATEMENT

This bill is concerned with all plant derived or synthetic cannabinoid products that require research such as cannabidiol (CBD) and Delta 8-THC, Delta 9-THC, Delta 10-THC and THC-O-Acetate and tetrahydrocannabivarin (THCV).

Marijuana/cannabis products today can be up to 99% THC, the psychoactive chemical in marijuana/cannabis. The amount of THC in marijuana/cannabis has been increasing steadily over the past few decades. For a person who is new to marijuana/cannabis use, this may mean exposure to higher THC levels with a greater chance of a harmful reaction including mental illness and addiction.[1]

Limiting the availability of high potency marijuana/cannabis/marijuana may be associated with decreased addiction and mental illness.[2] However, this does not imply that low potency cannabis/marijuana could be safely or more safely used. Even in small low potency amounts, damage of all kinds can be done to those of all ages and their children.[3]

The level of THC that should be researched should be up to the highest level sold or used in the state.

The state Department of Health should compile this research in order to advise the public and the medical community of the risk of marijuana/cannabis use

Footnotes

1. THC Crystals: The Purest THC on the Planet. https://internationalhighlife.com/thc-crystals-pure-thc/

See Colorado law: 1 CCR 212-2

The Problem with the Current High Potency THC Marijuana from the Perspective of an Addiction Psychiatrist, by Elizabeth Stuyt, MD 482/15:6 November/December2018 Missouri Medicine, https://pubmed.ncbi.nlm.nih.gov/30643324/

2. https://iasic1.org/doctors-warn-cannabis-can-cause-serious-health-hazards/

Association of High-Potency Cannabis Use With Mental Health and Substance Use in Adolescence. Hines, et.al. 2020, JAMA Psychiatry doi:10.1001/jamapsychiatry.2020.1035. https://pubmed.ncbi.nlm.nih.gov/32459328/

The impacts of marijuana dispensary density and neighborhood ecology on marijuana abuse and dependence, Christina Maira, et, al, https://www.sciencedirect.com/science/article/abs/pii/S037687161500318X

3. CDC information

https://www.cdc.gov/marijuana/index.htm
https://www.cdc.gov/marijuana/health-effects/addiction.html
https://www.cdc.gov/marijuana/health-effects/brain-health.html
https://www.cdc.gov/marijuana/health-effects/cancer.html
https://www.cdc.gov/marijuana/health-effects/driving.html
https://www.cdc.gov/marijuana/health-effects/heart-health.html
https://www.cdc.gov/marijuana/health-effects/lung-health.html
https://www.cdc.gov/marijuana/health-effects/mental-health.html
https://www.cdc.gov/marijuana/health-effects/chronic-pain.html
https://www.cdc.gov/marijuana/health-effects/poisoning.html
https://www.cdc.gov/marijuana/health-effects/risk-of-other-drugs.html
https://www.cdc.gov/marijuana/health-effects/second-hand-smoke.html
https://www.cdc.gov/marijuana/pdf/marijuana-pregnancy-508.pdf

https://www.fda.gov/consumers/consumer-updates/what-you-need-know-and-what-were-working-find-out-about-products-containing-cannabis-or-cannabis

https://www.fda.gov/consumers/consumer-updates/some-medicines-and-driving-don't-mix

https://www.nccih.nih.gov/health/cannabis-marijuana-and-cannabinoids-what-you-need-to-know

https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc

https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc

Why Marijuana Legalization is a Very Bad Idea https://acdemocracy.org/why-marijuana-legalization-is-a-very-bad-idea

The disconnect between the science on cannabis and public health campaigns. Miller CL. Addiction. 2017;112(10):1882-1883. https://onlinelibrary.wiley.com/doi/full/10.1111/add.13918

https://www.reuters.com/article/us-health-marijuana-kids/marijuana-related-er-visits-by-colorado-teens-on-the-rise-idUSKBN1HO38A

Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health, November, 2016, Chapters One and Two and Appendix D pp.65-66 at: https://store.samhsa.gov/sites/default/files/d7/priv/surgeon-generals-report.pdf

https://iasic1.org/doctors-warn-cannabis-can-cause-serious-health-hazards/

Surgeon General's Warning on Marijuana, 1982 https://www.cdc.gov/mmwr/preview/mmwrhtml/00001143.htm

National Institute of Drug Abuse Monograph 44. Marijuana's Effects on the Endocrine and Reproductive Systems. M. Braude, ed. (1984) https://www.semanticscholar.org/paper/Marijuana-effects-on-the-endocrine-and-reproductive-Braude/3a953e01f8cc6446e4d08db31b0ee157342c3858.

https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Marijuana-Use-During-Pregnancy-and-Lactation.

End note

The best way for people to avoid these harms is to avoid marijuana and other cannabis products. This statement does not endorse marijuana or cannabis use in any form including its legalization and commercialization.

MODEL MARIJUANA/CANNABIS RESEARCH BILL

(Statute title and citation)
The statute shall be placed in the laws regarding the state Department of Health

High-potency THC Marijuana and Marijuana Concentrate Research

(1)(a) The Department of Health shall conduct a systematic review of all available scientific evidence-based research regarding the possible physical and mental health effects of high-potency THC marijuana/cannabis concentrates regardless of the location of the research. The level of THC that should be researched should be at the highest level sold or used in the state.

(b) The research shall study the effect of high-potency THC marijuana/cannabis on the developing brain and the effect of marijuana/cannabis concentrates on physical and mental health. The research shall systematically curate and synthesize existing research, identify evidence gaps, and identify new research that is needed to better understand the health implications of high-potency THC marijuana/cannabis products and the specific THC potency levels and amounts at which various health concerns arise. The Department shall report by _____, 2023, to the Legislature (appropriate committees) whether they have identified any gaps in the research, and, if there are gaps, what those gaps are, what studies are needed to fill those gaps, the funding needed to complete those studies, and the timeline for completion of the necessary studies.

Nothing in this section shall preclude the Department from making recommendations regarding appropriate regulatory measures to the Governor and the Legislature.

(c) The research shall be conducted independently without any predetermined outcomes or undue influence from any party.

(2)(a) The Department shall produce an initial report of its findings by _____, 2023, and shall provide that report to the scientific review council created in subsection (2)(b) of this section and the Legislature. If at any point prior to the completion of the final report the Department believes there is sufficient scientific evidence to make a recommendation regarding appropriate regulatory measures, the Department shall

provide those recommendations to the scientific review council created in subsection (2)(b) of this section and the Legislature. If after submitting the initial report the Department believes additional research and reporting is necessary, the Department may, subject to available appropriations, conduct additional research and issue additional reports and recommendations to the scientific review council created in subsection (b) of this section and Legislature. If after _____, 2023, additional research is conducted and sufficient data from that research shows a prevalence of negative physical or mental health outcomes from the use of high-potency THC marijuana/cannabis products, the Department shall submit a report regarding the findings to the scientific review council created in subsection (2)(b) of this section and the Legislature. Any recommendations can include additional criminal penalties related to marijuana/cannabis concentrate use, possession, or possession of paraphernalia or new crimes related to marijuana/cannabis concentrate use, possession, or possession of paraphernalia.

(b)(1) The Department shall establish a scientific review council to review the initial report and any subsequent reports produced pursuant to subsection (2)(a) of this section and make recommendations to the Legislature regarding appropriate evidence-based regulatory changes and the funding of additional necessary evidence-based research. The deans of the state medical schools and schools of pharmacy shall appoint members, to the scientific review council who do not have a pecuniary interest or anyone in their immediate family who does not have a pecuniary interest, who represent an unbiased group of professionals, as follows:

An epidemiologist;
A physician familiar with the administration of medical marijuana/cannabis pursuant to current state laws with experience recommending medical/cannabis marijuana to those who are age zero to seventeen;
A medical toxicologist;
A neurologist;
A pediatrician;
A psychiatrist;
An internal medicine physician or other specialist in adult medicine;
A preventive medicine specialist or public health professional;
A licensed substance use disorder specialist;
A neuropsychopharmacologist.

(2) The scientific review council shall post public notice of each committee meeting at least two weeks before the meeting, and the meetings shall be broadcast to the public. Nothing precludes the public from submitting written comments to the committee.

(3) Based on its research and findings, the Department shall produce a public education campaign for the general public regarding the effect of high-potency THC marijuana/cannabis on the developing brain and on physical and mental health. The scientific review council created in subsection (2)(b) of this section shall approve the public education campaign.

(4) The Department shall not seek, accept, or use gifts, grants, or donations to fund the provisions of this section. The provisions of this section shall be completed using only appropriations from the general assembly.



Americans Against Legalizing Marijuana

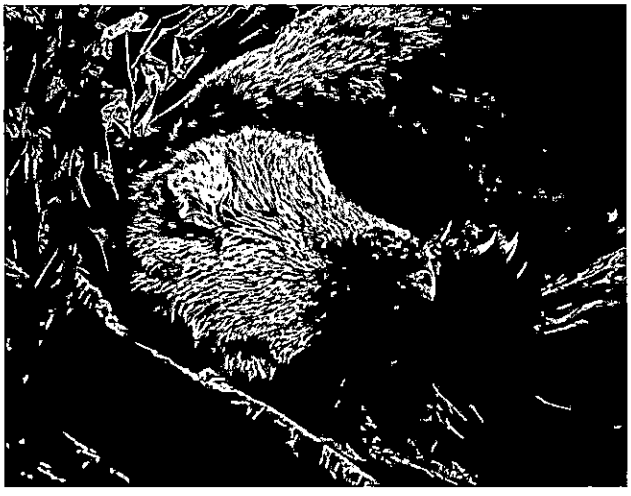
AALM.info

We advocate for No Use of Illegal Drugs and No Illegal Use of Legal Drugs

Americans Against Legalizing Marijuana
AALM.info

WATER AND WILDLIFE...OR WEED?

The issues of water availability and the killing of wildlife due to contaminants from marijuana growing are serious issues in states that have legalized marijuana such as California. **The huge number of marijuana grows are having very negative effects on water availability, water quality, aquatic habitats, riparian habitat, wetlands and springs and rivers.** Wildlife may be exposed to dangerous chemicals due to marijuana growing. Animals exposed to these chemicals "drown in their own blood or stumble around until they're eaten themselves, passing the poison up the food chain to predators like owls and fishers." [1]



Pictured: This male fisher was found dead near Yosemite National Park. Tissue samples confirmed the animal was killed by rat poison consumed at a marijuana grow. ELIZABETH SHOGREN / NPR

Executive Summary

1. Marijuana growers are responsible for theft of water during droughts.
2. This water is needed elsewhere to grow food and to fight wild fires, and for human use.
3. Many "legal" and all illegal marijuana grows are not regulated safely.
4. The increase in water theft has exposed the vulnerabilities in the state systems to secure water and the complications of weak marijuana law enforcement.
5. Current marijuana cultivation activities have led to significant environmental impacts, including habitat degradation, loss and fragmentation or burying of streams, diversion of surface waters, and impacts to water quality, including sediment, garbage, pesticides, and petroleum products.

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1 Illegal Pot Farms Are Poisoning California's Forests. Secret growers are taking advantage of the state's remote stretches of public land - and the environmental impact is severe. https://www.theatlantic.com/science/archive/2017/03/backcountry-drug-war/521352/

6. Intimidation by marijuana growers is an impediment to more robust reporting and enforcement.
7. Much of the marijuana industry is out of control and has made water more scarce and more polluted.
8. Lack of clean water and pollution is killing wildlife.
9. Although there may be some regulations, there are massive number of illegal grows that are not regulated.[2]

Water Usage

Marijuana legalization has allowed black market growing and selling to continue because marijuana advertising fuels demand. Some states produce more marijuana than is consumed within their state. The excess is shipped illegally across state lines to the east where prices are higher. Local law enforcement agencies are completely overwhelmed with marijuana related criminal activities.[3] Legalization was supposed to reduce demands on law enforcement.



Pictured: Water thieves are using any type of vehicle/ containers to transport stolen water such as large tanker water trucks, water cubed containers in backs of beds, trailers with water tanks.

Theft of Water

Recent press reports document that marijuana growers are stealing scarce water. Water thieves working for illicit marijuana operations are stealing water from wells, aquifers, remote filling stations and tap into fire hydrants and improperly shut off water valves. This leads to a limited water supply for fighting fires and food production.[4]

The majority of California agriculture is subject to heavy water use regulation.

2 Cannabis Cultivation Policy, State Water Resources Control Board, approved April 16, 2019. https://www.waterboards.ca.gov/water_issues/programs/cannabis/

3 Thieves are stealing California's scarce water. Where's it going? Illegal marijuana farms" Julie Cart, July 27, 2021, https://calmatters.org/environment/2021/07/illegal-marijuana-growers-steal-california-water/Illegal cannabis growers are stealing water amid California's drought, officials say," Washington Post, Rachel Pannett, July 28, 2021 https://www.washingtonpost.com/nation/2021/07/28/water-theft-drought-cannabis/?utm_campaign=wp_post_most&utm_medium=email&utm_source=newsletter&wpisrc=nl_most&carta-url=https%

4 Thieves are stealing California's scarce water. Where's it going? Illegal marijuana farms" Julie Cart, July 27, 2021, https://calmatters.org/environment/2021/07/illegal-marijuana-growers-steal-california-water/

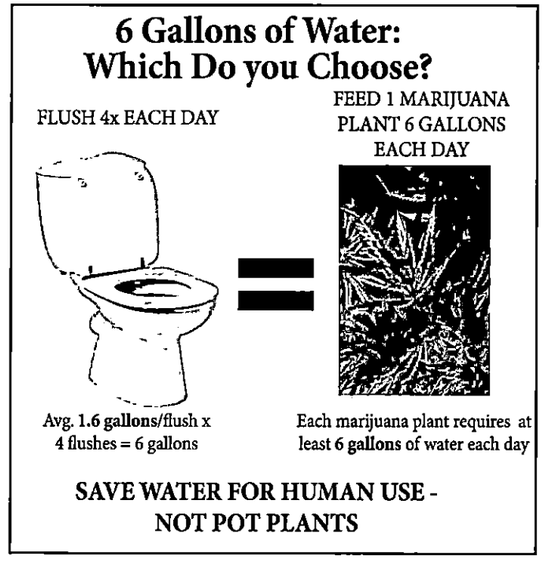
5 See: "Cultivating Disaster" page 33 at https://static1.squarespace.com/static/599a426ee45a7ccab72c77d2/t/618dbf053f3402756b4b7659/1636679434662/CULTIVATING.DISASTER+%282%29.pdf Thieves are stealing California's scarce water. Where's it going? Illegal marijuana farms" Julie Cart, July 27, 2021, https://calmatters.org/environment/2021/07/illegal-marijuana-growers-steal-california-water/ "Illegal cannabis growers are stealing water amid California's drought, officials say," Washington Post, Rachel Pannett, July 28, 2021 https://www.washingtonpost.com/nation/2021/07/28/water-theft-drought-cannabis/?utm_campaign=wp_post_most&utm_medium=email&utm_source=newsletter&wpisrc=nl_most&carta-url=https%

Farmers of most irrigated crops help their plants through the dry summer months by filling water tanks in the winter, when streams and springs are full. By contrast, many marijuana growers draw surface water during the plant's summer growing season, when drought conditions are worse. Taking water directly from rivers and streams in the summer not only reduces the water available for agriculture but also threatens wildlife species, especially birds and fish.[5]

Farmers, ranchers and licensed marijuana growers fight to obtain water through legal channels but illegal pot growers are stealing it or purchasing it from illicit sources. The increase in water theft has exposed the vulnerabilities in the state systems to secure water and the complications of weak marijuana law enforcement.

Intimidation by marijuana growers is an impediment to more robust reporting and enforcement. In addition, the political power of marijuana interests is undermining the ability of citizens to get local jurisdictions to address these problems. [6]

Watersheds have been losing water flow to an "alarming rate" because of illegal marijuana cultivation. It is estimated that there are 40-50,000 illegal grow sites in California using precious water. Each pot plant requires between 6 and 8 gallons of water per day. For example, illegal grows in just three southern California counties use an astounding 5.4 million gallons of water each day. [7]



6 Thieves are stealing California's scarce water. Where's it going? Illegal marijuana farms" Julie Cart, July 27, 2021, https://calmatters.org/environment/2021/07/illegal-marijuana-growers-steal-california-water/Ilegal cannabis growers are stealing water amid California's drought, officials say," Washington Post, Rachel Pannett, July 28, 2021 https://www.washingtonpost.com/nation/2021/07/28/water-theft-drought-cannabis/?utm_campaign=wp_post_most&utm_medium=email&utm_source=newsletter&wpisrc=nl_most&carta-url=https% Jewel Wicker, "Marijuana farmers blamed for water theft as drought grips American west" https://www.theguardian.com/environment/2021/jul/23/water-theft-marijuana-farmers-california-american-west "California Cracks Down on Illegal Cannabis Growers Stealing Water Amidst Droughts & Wildfires," James Eason, July 30, 2021 https://marijuanapackaging.com/blogs/california-marijuana/california-cracks-down-on-illegal-cannabis-growers-stealing-water-amidst-droughts-wildfires.

7 Thieves are stealing California's scarce water. Where's it going? Illegal marijuana farms" Julie Cart, July 27, 2021, https://calmatters.org/environment/2021/07/illegal-marijuana-growers-steal-california-water/ Illegal cannabis growers are stealing water amid California's drought, officials say," Washington Post, Rachel Pannett, July 28, 2021; https://www.washingtonpost.com/nation/2021/07/28/water-theft-drought-cannabis/?utm_campaign=wp_post_most&utm_medium=email&utm_source=newsletter&wpisrc=nl_most&carta-url=https% "California Cracks Down on Illegal Cannabis Growers Stealing Water Amidst Droughts & Wildfires"; https://marijuanapackaging.com/blogs/california-marijuana/california-cracks-down-on-illegal-cannabis-growers-stealing-water-amidst-droughts-wildfires

8 Cannabis farms in California rely on wells outside of regulated groundwater basins, Christopher Dillis et al 2021 Environ. Res. Commun. 3 075005; https://iopscience.iop.org/article/10.1088/2515-7620/ac1124

The Science

A study suggests that widespread reliance on groundwater wells for marijuana irrigation may result in stream flow depletion. Well use by marijuana farms is in the 11 top marijuana producing counties in California. Some trespass growers leave their irrigation systems running around the clock. In eight of these 11 counties, more than one quarter of farms are using wells that are located outside of groundwater basins subject to state groundwater use regulations.[8] Some grows use 50 percent more water because of inefficient irrigation systems and added stressors like pests, pathogens, and drier weather at higher elevations. Multiply that by hundreds of thousands of plants and there is a serious water problem. A study by the California Department of Fish and Wildlife estimated that trespass marijuana grows used about 300 million gallons of water per square mile, roughly the same as almond orchards.[9] California and other states that have legalized marijuana have droughts that make it very clear that clean water is a precious and critically important natural resource essential to life. Much of the marijuana industry in those states is out of control and is threatening this natural resource. Legalization of marijuana has made water more scarce and more polluted.



Pictured: These barred owls died from anticoagulant rodenticide, which causes rats to bleed out, and inevitably accumulates in apex predators like owls. The poison most likely came from an illegal cannabis operation. Matt Simon / WIRED

Wildlife or Weed?

Marijuana cultivation has caused significant environmental damage, including discharges of pollutants to surface water and ground water, erosion and sedimentation, and illegal diversions of surface water. The federal and state laws that all farmers must follow have been ignored by many marijuana growers. There is improper use of chemicals and fertilizers at marijuana grows. Even many licensed growers do not abide by the rules. [10]

Fertilizers with high nitrates are of particular concern as nitrate loading contributes to cyanobacteria that kill fish and animals. Pesticides used at grows are often not approved for use on crops for human consumption.

9 Illegal Pot Farms Are Poisoning California's Forests Secret growers are taking advantage of the state's remote stretches of public land - and the environmental impact is severe. https://www.theatlantic.com/science/archive/2017/03/backcountry-drug-war/521352/

10 For more documentation see: "Cultivating Disaster" at 18-19 https://static1.squarespace.com/static/599a426ee45a7ccab72c77d2/t/618dbf053f3402756b4b7659/1636679434662/CULTIVATING.DISASTER+%282%29.pdf

11 For more documentation see the entire document "Cultivating Disaster" Ibid. https://www.oregonlive.com/opinion/index.ssf/2018/01/us_attorney_a_call_for_transpa.html; https://www.marijuana.com/news/2018/05/u-s-attorney-to-crack-down-on-illegally-grown-northern-california-marijuana/

Current marijuana cultivation activities have led to significant environmental impacts, including habitat degradation, loss and fragmentation or burying of streams, diversion of surface waters, and impacts to water quality including sediment, garbage, pesticides and petroleum products. [11]

The illegal growers often use chemical fertilizers and pesticides restricted or banned in the United States, including carbofuran, diazinon and zinc phosphide. "Carbofuran, one of these banned pesticides, can cause headaches, nausea, vomiting, convulsions, and even death to humans or animals that consume it. Diazinon, another chemical found at many illegal grows sites, can cause breathing difficulties, weakness, blue lips, convulsions, and coma." [12]
Carbofuran is turning up at 60 to 70% of illegal grow sites, often mixed in bottles with no labels. One third of a teaspoon can kill a 300 lb bear. [13]

Growers have turned thousands of acres of woodlands into waste dumps so toxic that law enforcement officers who inadvertently touched plants and equipment require hospitalization. Many animals are dying. Many contaminated rivers and creeks flow into the water supply system in our most populous areas. Streams may test positive for chemicals more than a year after illegal grows are cleared. It may take months or years for chemicals to migrate through the soil. [14] The Huffington Post noted that many of the chemicals applied to marijuana plants are intended only for lawns and other non-edible uses. They reported that marijuana pesticide contamination is widespread and in some cases pesticide residue levels are 1,600 times greater than the legal desirable amount. [15]

Impact of Water Pollution

Normal agriculture in California follows strict requirements in the application of chemicals and fertilizers. Products used must be labeled as approved for use on the agricultural product being grown with application rates, methods, time of day, wind speed, containment. In the case of chemicals there must be OSHA compliant safety equipment used and blood testing of workers. Air and water monitoring both upstream and downstream are often required to insure there is no migration of chemicals onto neighboring property via air or into adjacent streams. In some cases, neighbors must be notified. [16]

12 https://merryjane.com/health/toxic-pesticides-from-illegal-cannabis-grows-are-seeping-into-california-waterways; https://www.thecannabist.co/2018/01/01/california-marijuana-legalization-environmental-regulations/95680/

13 https://www.cbsnews.com/news/lassen-national-forest-toxic-chemicals-killing-wildlife-illegal-marijuana-grows/https://www.co.siskiyou.ca.us/sites/default/files/SO-20160920_MarijuanaEnforcementUpdate.pdf

14 "Banned Pesticides from Illegal Pot Farms Seep into California Water, 35 No. 16 Westlaw Journal Toxic Torts 5, September 22, 2017

15 http://www.huffingtonpost.com/2013/05/24/marijuana-pesticides-contamination_n_3328122.html

16 See: "Cultivating Disaster" page 12 at https://static1.squarespace.com/static/599a426ee45a7ccab72c77d2/t/618dbf053f3402756b4b7659/1636679434662/CULTIVATING.DISASTER+%282%29.pdf



Pictured: California land & nature trashed with various marijuana grow tools

An article in The Atlantic about marijuana grows in California noted the following problems:

1. **Rodenticides used in marijuana growing causes neurological damage and internal bleeding.**
2. **Animals exposed to these chemicals "drown in their own blood or stumble around until they're eaten themselves, passing the poison up the food chain to predators like owls and fishers."**
3. **The growers bait open tuna cans with pesticides, which are often flavored like meat or peanut butter, or string up poisoned hot dogs on fish hooks. People have found bears, foxes, vultures, and deer with chemicals from grow sites in their bodies.**

One study of owls in the Pacific Northwest found that 80 percent of the birds tested positive for dangerous chemicals. And for every animal found, there are probably dozens more in a similar condition.

4. The poisons could spread far beyond each grow site and contaminate the water supply of towns and cities far downstream. The toxicants can leach into the soil and linger for years.

5. The chemical containers can explode. They can gasify and build up pressure in the heat of the sun. [17]

Indoor Growing

Indoor and hydroponic growing is defined as the process of growing plants in sand, gravel, or liquid, with added nutrients but without soil. The water used contains a specialty mix of chemicals and fertilizers designed for high potency growth. When the water is disposed of into a municipal waste treatment systems or private on-site septic systems that are not designed to handle the effluent, environmental damage results. [18] Pest problems are always worse indoors, which biases farmers toward a chemically intensive regime and chemical run-off into water sources. [19]

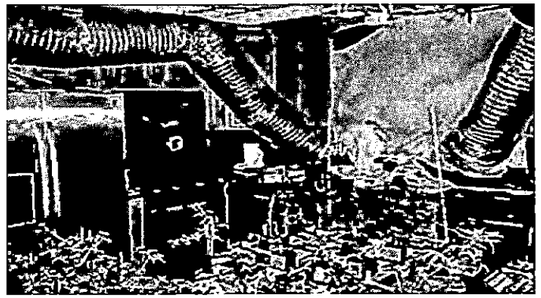
17 See the entire document: "Cultivating Disaster" Ibid. Illegal Pot Farms Are Poisoning California's Forests Secret growers are taking advantage of the state's remote stretches of public land - and the environmental impact is severe. https://www.theatlantic.com/science/archive/2017/03/backcountry-drug-war/521352/

18 See: "Cultivating Disaster" page 22. Ibid

19 See: "Cultivating Disaster" page 35, Ibid

The Science

It has been found that toxicants from marijuana cultivation cause a threat to birds. [20] One environmental side-effect of marijuana growing is the extensive use of anticoagulant rodenticides to prevent damage to marijuana plants caused by wild rodents. The proliferation of grow operations with their use of anticoagulant rodenticides in forested landscapes used by northern spotted owls may pose an additional stressor for this threatened species. In Humboldt County California it is estimated there are 4,000 to 15,000 marijuana grow sites. Many marijuana growers use anticoagulant rodenticides. When rodents exposed to anticoagulant rodenticides are eaten by the birds and animals that feed on them the birds die from uncontrollable bleeding. The anticoagulant rodenticides also run off into rivers and streams and kill fish such as salmon. These deaths "have been directly attributed to rat poison used by cannabis farmers." [21] The increase in cannabis use might increase its levels in freshwaters, enhancing hazards to bivalves and to the whole aquatic community. [22]



Pictured: A Fremont CA couple's rental property damaged by a black market marijuana grow. DAN NOYES/ABC

Direct Contact with Human Beings

Research finds that the application of dangerous chemicals can make direct contact with human beings. For example, many municipal systems spray their treated water onto local golf courses. Without testing for the discrete chemicals that the US Forest Service found on grow sites, the tainted water could make its way into direct contact with people recreating in contaminated areas and waters. People are not be aware of the potential dangers or the level of risk associated with using these recreational facilities. [23]

20 "Patterns of Natural and Human-Caused Mortality Factors of a Rare Forest Carnivore, the Fisher (Pekania pennanti) in California," Mourad W. Gabriel, Leslie W. Wood, Greta M. Wengert, Nicole Stephenson, et. al, PLOS ONE/DOI:10.1371/journal.pone.0140640 November 4, 2015

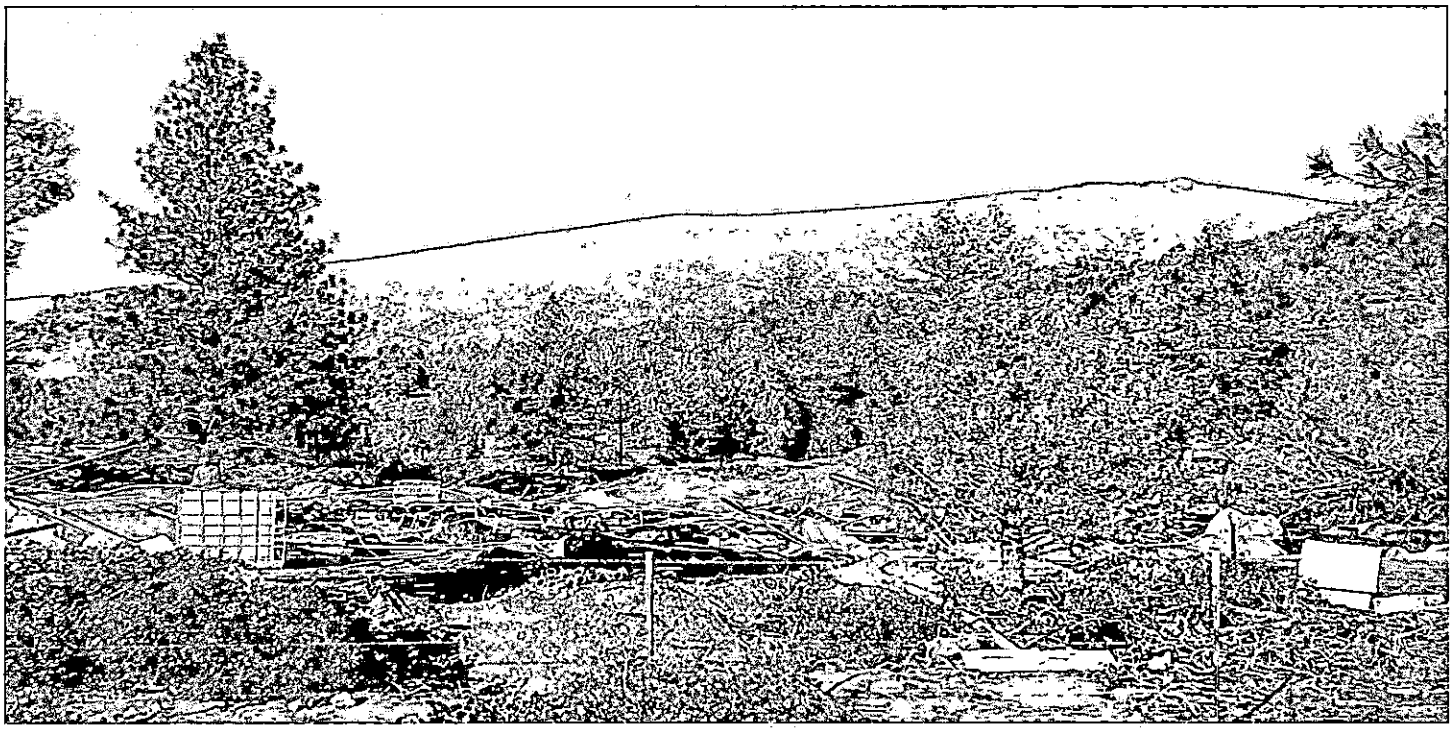
21 "Grass is not always greener: rodenticide exposure of a threatened species near marijuana growing operations," Franklin et al. BMC Res Notes (2018) 11:94; https://doi.org/10 .1186/s l3104-018-3206z. See also, AVIAN CONSERVATION & ECOLOGY VOLUME 13, ISSUE 1, ARTICLE 2 Gabriel, M. W., L. V. Diller, J. P. Dumbacher, G. M. Wengert, I M. Higley, R. H. Poppenga, and S. Mendia. 2018. Exposure to rodenticides in Northern Spotted and Barred Owls on remote forest lands in northwestern California: evidence of food web contamination.

22 Environ Toxicol Chem. 2017 Feb;36(2):472-479. doi: 10.1002/etc.3575. Epub 2016 Oct 5. Increase in cannabis use may indirectly affect the health status of a freshwater species. Parolini M, Castiglioni S, Magni S, Della Torre C, Binelli A1.

23 See: "Cultivating Disaster" page 23 https://static1.squarespace.com/static/599a426ee45a7ccab72c77d2/t/618dbf053f3402756b4b7659/1636679434662/CULTIVATING.DISASTER+%282%29.pdf

Conclusion

The states that have legalized marijuana and do not really regulate marijuana growing must choose. They cannot continue as they are **and** have water **and** wildlife **and** weed.



Pictured: Trashed California land is a direct negative result of marijuana farming & growing.

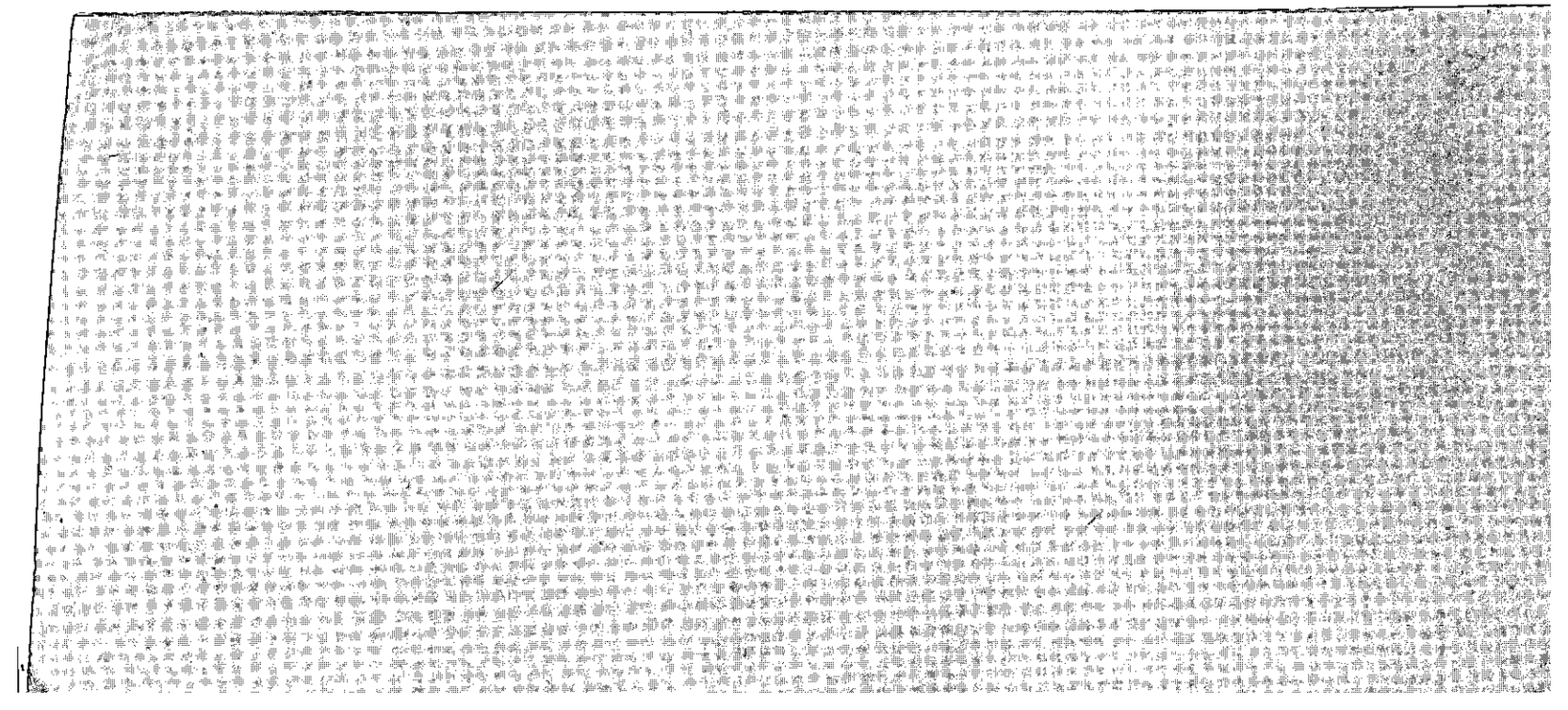


Pictured: Dennis Miller at an illegal grow site

Acknowledgement

Dennis Mills, the author of Cultivating Disaster that is cited herein has given permission to use his work. It clearly documents the environmental damage caused by marijuana growing and is an excellent scientific resource paper. Our nation owes a great debt to him for his tireless work exposing this threat. Cultivating Disaster was prepared with the Communications Institute. https://communicationsinstitute.org, who have also given their permission.

Visit us online at www.aalm.info for more information on this and other topics.



IMPACT REPORT

2023-2024

Lessons Learned from State Marijuana Legalization

SAM Smart Approaches to Marijuana
preventing another big tobacco

www.learnaboutsam.org

IMPACT REPORT

I. **Data and policy background**
   a. A snapshot
   b. Research on marijuana harms
   c. Key outcomes
II. **Commercialization: a growing concern**
   a. High-potency marijuana
   b. Not only potency, but consumption levels: What do users look like today?
   c. State regulatory frameworks struggle to keep up with the number of licensed shops.
III. **Adverse health effects of marijuana**
   a. Marijuana and pregnancy
   b. Marijuana and co-use with other substances
      i. Marijuana's association with alcohol and other drugs
      ii. Marijuana vaping
   c. Emergency department and hospital admissions
IV. **Impact on youth**
V. **Impact on young adults**
VI. **Impact on communities of color and low-income populations**
VII. **Impact on homelessness**
VIII. **Impact on impaired driving**
IX. **Impact on crime**
X. **Impact on the illicit market**
XI. **Tax revenue from legalization**
XII. **Localities opt-out of retail marijuana**
XIII. **"Legal" products are unsafe**
XIV. **Impact on the environment**
XV. **Canada**
XVI. **Impact on pets**
XVII. **References**

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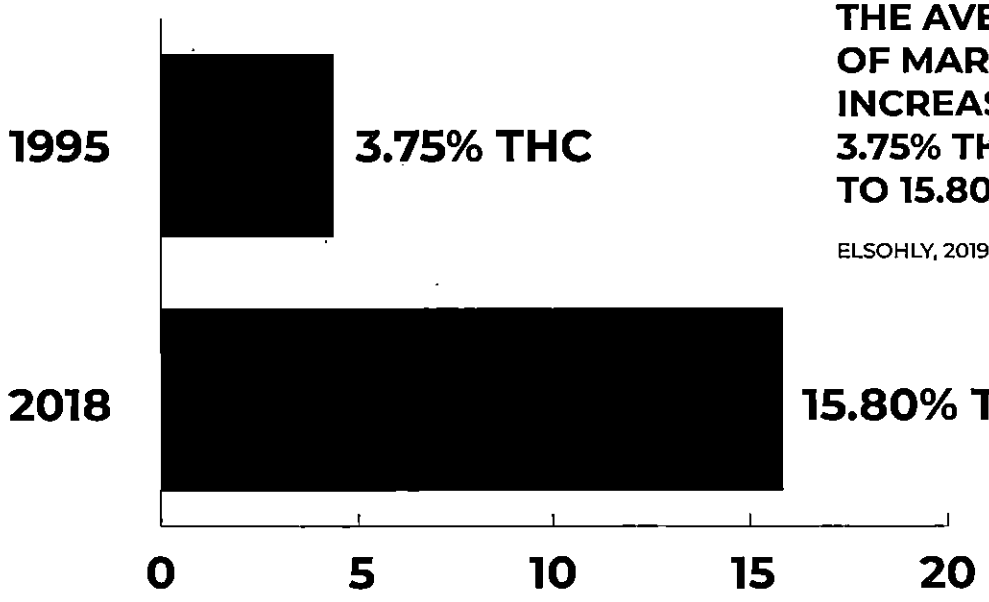
DATA AND POLICY BACKGROUND

Contrary to federal law, under which the possession and sale of marijuana are illegal (Controlled Substances Act, 1971), several states have legalized the cultivation, commercial sale, and use of marijuana, beginning in 2012. Despite this, dozens of states continue to reject the legalization of marijuana. The vast majority of localities in "legal" states also ban the production and retail sale of marijuana. Marijuana remains illegal at the federal level, although pro-marijuana lobbyists are actively working to undue this.

Smart Approaches to Marijuana (SAM) compiled publicly available federal and state-level data, reports, investigatory findings, peer-reviewed studies, and government health surveys to assemble this report. We have attempted to be as transparent as possible in our evaluation so as to allow readers to trace our steps and further their own research. For example, in reviewing the Substance Abuse and Mental Health Services Administration (SAMHSA) data taken from the National Survey on Drug Use and Health (NSDUH), we included data from the District of Columbia in our assessment of "legal" jurisdictions. They have legalized marijuana to some degree, although their measures differ from traditional recreational marijuana programs because they continue to prohibit commercial sales.

A note on 2020 and 2021 data: the data collected during 2020 and 2021 are unique because of the COVID-19 pandemic and the change in behaviors observed by many Americans. School-age children spent their time learning at home and were less influenced by peers, fewer drivers were on the road during peak crash times, but drivers overall were more reckless, many bars and restaurants were closed for long periods of time, and many employees worked from home. On the inverse, millions of Americans struggled with their mental health, overdose deaths skyrocketed, and many Americans missed healthcare appointments and postponed care. Because each state's COVID-related regulations were different, national-level data is difficult to scrutinize. The data should be observed through this lens. If the data need additional qualifiers, we have noted that.

POTENCY



THE AVERAGE POTENCY OF MARIJUANA FLOWER INCREASED FROM 3.75% THC IN 1995 TO 15.80% IN 2018

ELSOHLY, 2019

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USE DATA

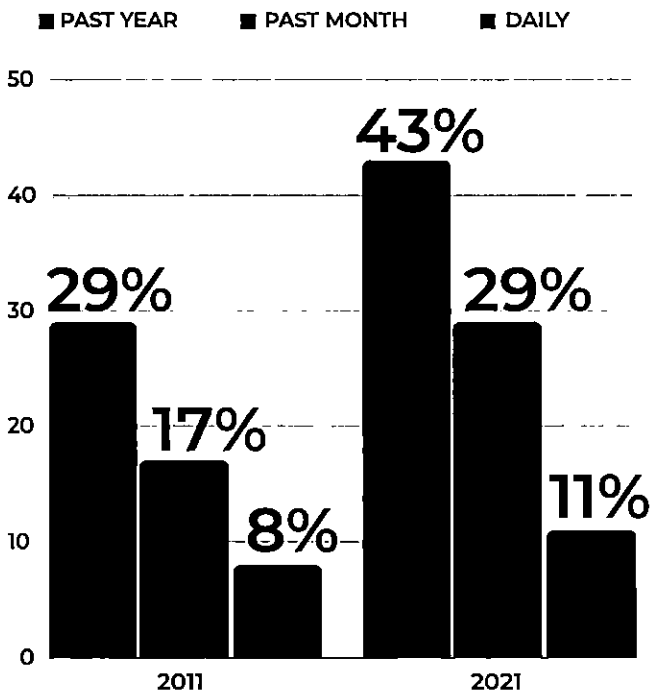
52.5

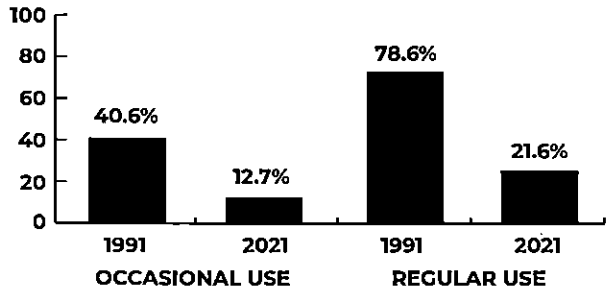
MILLION AMERICANS used marijuana in 2021 vs. 17.5 Million Americans used marijuana in 1992 NSDUH 2021

USE IS INCREASING ACROSS THE BOARD, BUT ESPECIALLY IN YOUNG ADULTS AGED 19-30:

29% reported past-month use in 2021 up from 17% in 2011; 11% reported daily use, up from 8% in 2011

MTF 2021

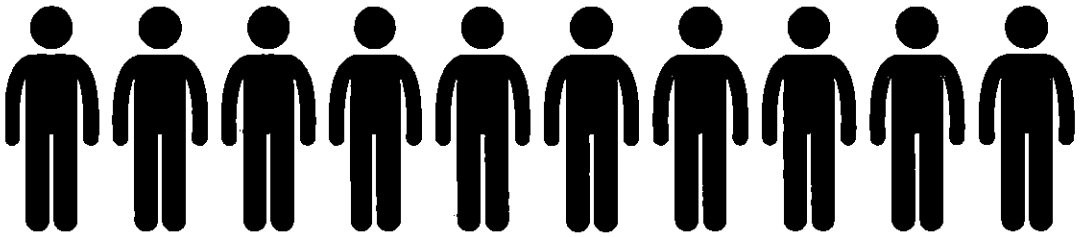




12TH GRADERS PERCEPTION OF MARIJUANA'S HARM
MONITORING THE FUTURE, 2022B

WHILE THE USE OF MARIJUANA IS STEADILY INCREASING, THE PERCEPTION OF HARM FROM USING MARIJUANA IS DECREASING, ESPECIALLY AMONG HIGH SCHOOLERS

30% of marijuana users have some form of marijuana use disorder



National Institute on Drug Abuse, 2019a

USE BEFORE THE AGE OF 18 INCREASES THE LIKELIHOOD OF MARIJUANA USE DISORDER BY SEVEN FOLD

National Institute on Drug Abuse, 2019a

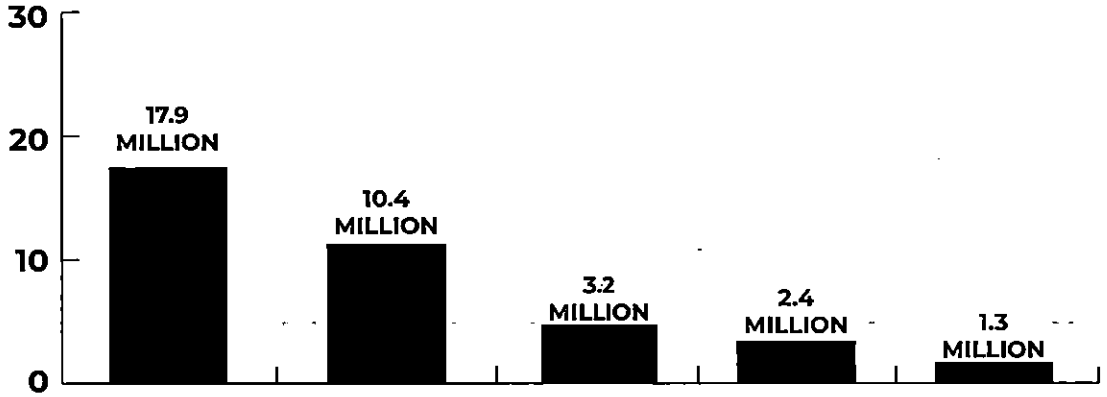


LEGALIZATION IS ASSOCIATED WITH A 25% INCREASE IN MARIJUANA USE DISORDER AMONG 12–17-YEAR-OLDS

CERDÁ ET AL., 2020

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VAPING MARIJUANA IS ALSO UP ACROSS THE BOARD, ESPECIALLY FOR YOUTH

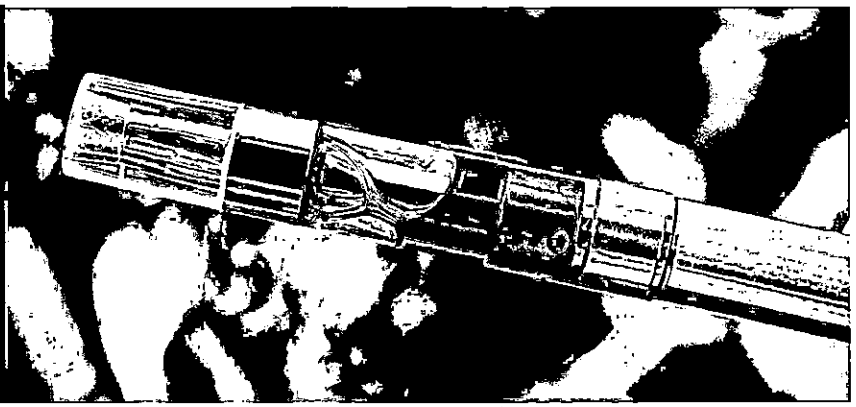


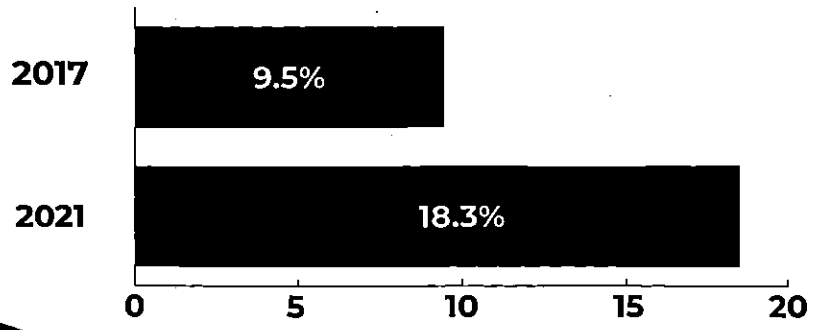
IN 2020, 34.5 MILLION INDIVIDUALS 12 OR OLDER REPORTED VAPING NICOTINE IN THEIR LIFETIME; 17.9 MILLION OF THOSE WERE WITHIN THE PAST YEAR, AND 10.4 MILLION WERE WITHIN THE PAST MONTH. AMONG THOSE AGED 12–17, 3.2 MILLION REPORTED HAVING USED A NICOTINE VAPE BEFORE; 2.4 MILLION OF THOSE VAPED NICOTINE IN THE PAST YEAR, AND 1.3 MILLION DID SO IN THE PAST MONTH (WHICH IS NOTABLY HIGHER THAN ALL OTHER FORMS OF CONSUMING NICOTINE)

SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION, 2020A

Between 2017 and 2019, dabbing at least once increased by 47.8%, and dabbing usually increased by 178.6%. Vaping at least once increased by 70.0%, and vaping usually increased by 185.7%

COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT, 2021



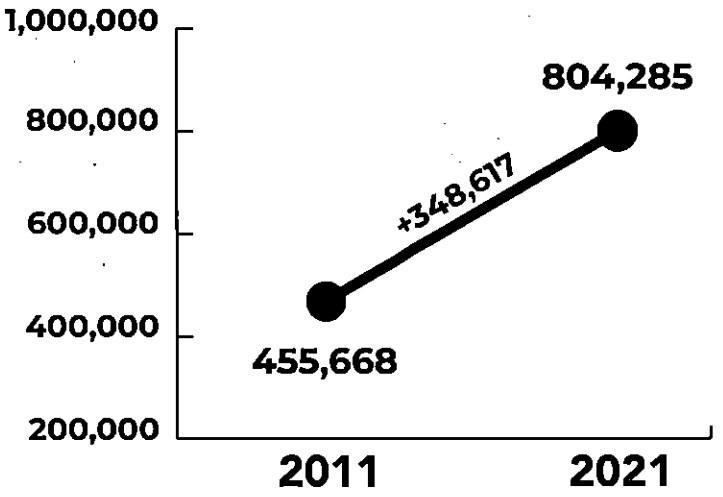


BETWEEN 2017 AND 2021, THE PERCENTAGE OF 12TH GRADERS WHO VAPED MARIJUANA IN THE PAST YEAR INCREASED FROM 9.5% TO 18.3%

MONITORING THE FUTURE, 2022A

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PUBLIC HEALTH



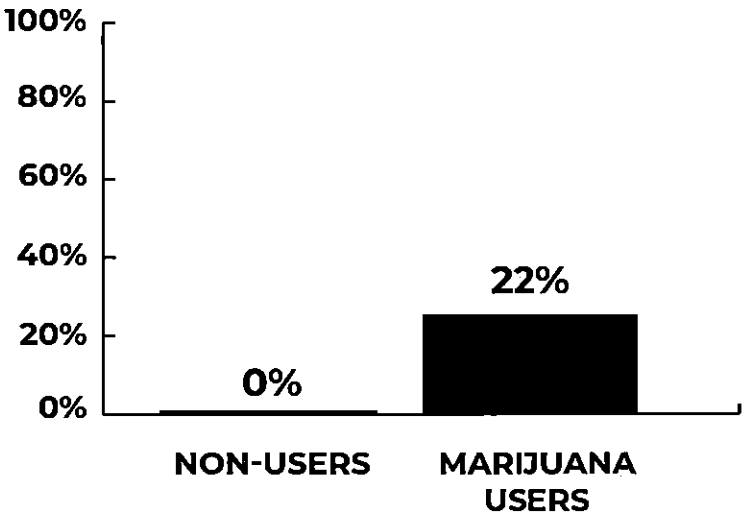
IN THE UNITED STATES, THERE WERE 804,285 MARIJUANA RELATED EMERGENCY DEPARTMENT VISITS HAVE INCREASED SINCE 2011

2011 & 2021 DRUG ABUSE WARNING NETWORK

MARIJUANA USERS WERE NEARLY 25% MORE LIKELY THAN NON-USERS TO GO TO THE ER OR BE HOSPITALIZED

VOZORIS ET AL., 2022

LIKELIHOOD OF NEEDING EMERGENCY SERVICES



"Colorado has reported a 46% increase in hospitalizations due to Cannabis Hyperemesis cyclical vomiting in just five years after the legalization of recreational cannabis"

G. S. WANG ET AL., 2021

EMERGENCY DEPARTMENT VISITS AND ADMISSIONS RELATED TO MARIJUANA ABUSE IN CALIFORNIA IS UP 89% FOLLOWING LEGALIZATION

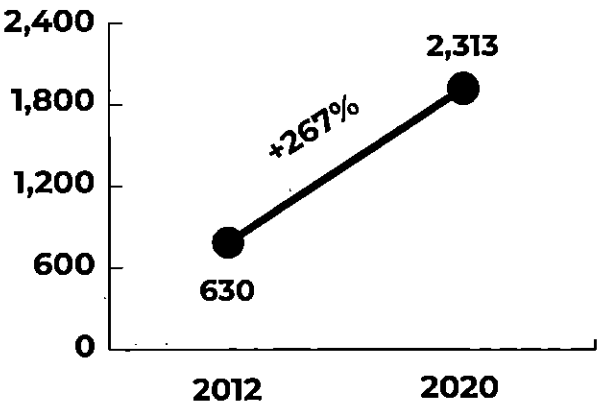
CALIFORNIA OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT, 2019



MARIJUANA-RELATED HOSPITALIZATIONS IN COLORADO PER 100,000 SINCE LEGALIZATION HAVE INCREASED 148%



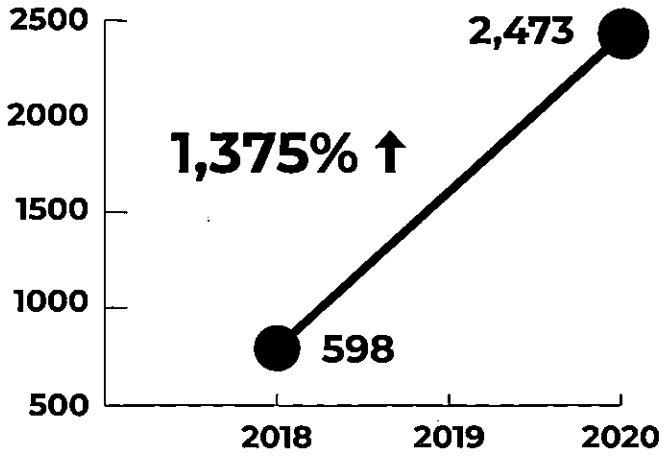
COLORADO DIVISION OF CRIMINAL JUSTICE, 2021



MARIJUANA-INDUCED ER ADMISSIONS IN ARIZONA

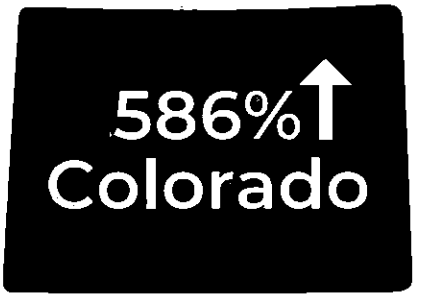
ARIZONA DEPARTMENT OF HEALTH SERVICES

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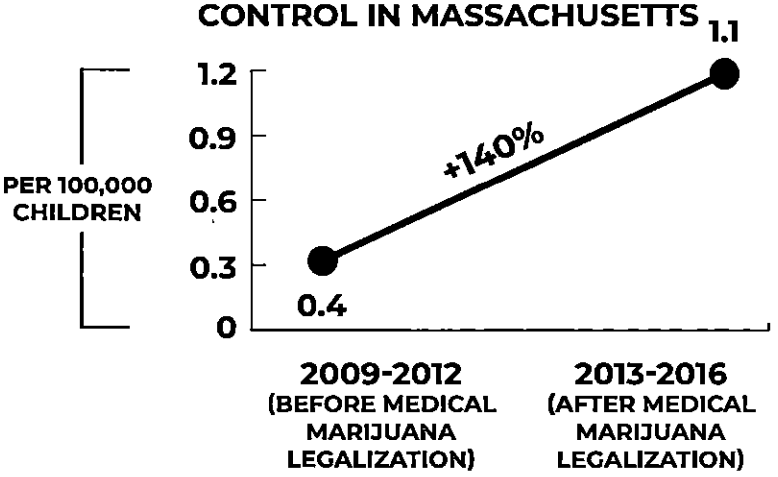


NATIONALLY, THERE WERE 2,473 IN-HOME THC EXPOSURES INVOLVING CHILDREN YOUNGER THAN 12 IN 2020, UP FROM 598 IN 2018

RUSSO, 2021



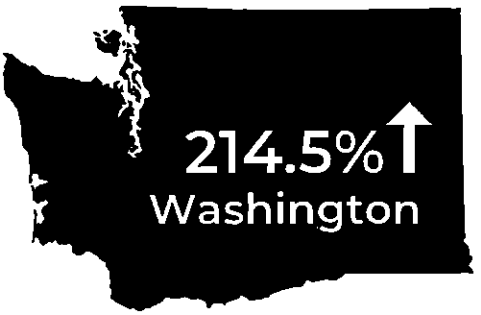
INCIDENCE OF CANNABIS CALLS TO POISON CONTROL IN MASSACHUSETTS



FROM 2012 TO 2019, THERE WAS A 586% INCREASE IN CALLS TO POISON CONTROL IN COLORADO FOR MARIJUANA-RELATED INCIDENCES IN CHILDREN BETWEEN 0-5

COLORADO DEPARTMENT OF PUBLIC SAFETY, 2021

INCREASES IN LEGAL STATES FOR MARIJUANA-RELATED POISON CONTROL CALLS:



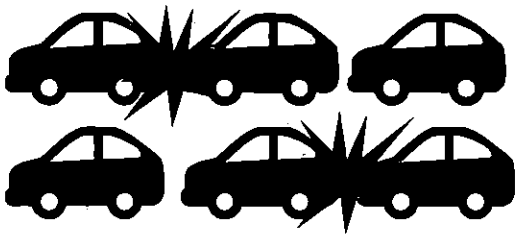
WASHINGTON POISON CENTER, 2019



EMERSON, 2022

SAM Smart Approaches to Marijuana
preventing another big tobacco

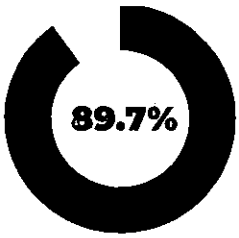
6800



If marijuana were legalized nationwide, the U.S. would suffer an additional 6,800 excess fatal crashes every year

KAMER ET AL., 2020

Among Colorado drivers who underwent confirmatory testing for Delta-9 THC between 2016 and 2019



Tested positive for THC

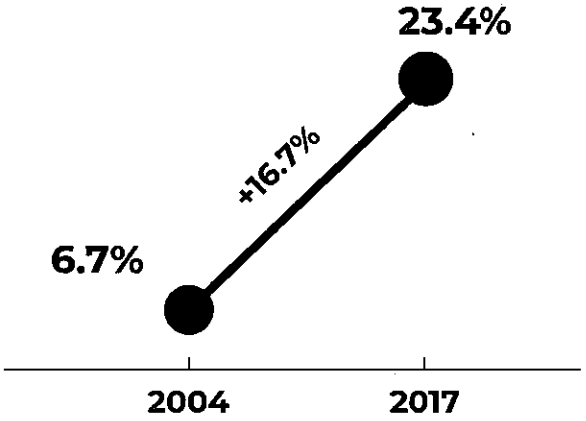


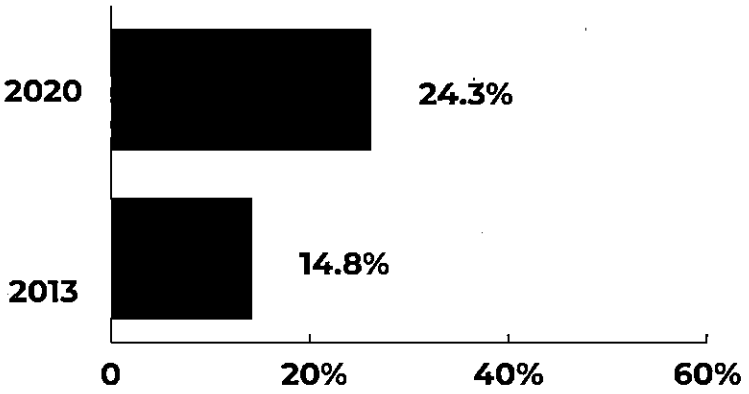
Tested positive for a THC level between 1.0 and 5.0 ng/ml



Tested positive for a THC level above 5.0 ng/ml

ROSENTHAL & REED, 2022





IN MICHIGAN AMONG THOSE FATAL CRASHES WHERE CANNABIS WAS TESTED, THE PROPORTION OF TESTS THAT WERE POSITIVE FOR CANNABINOIDS MORE THAN TRIPLED OVER 13 YEARS (6.7% IN 2004 TO 23.4% IN 2017).

UNIVERSITY OF MICHIGAN INJURY PREVENTION CENTER, 2022, P. 12

IN 2020, 24.3% OF DRIVERS INVOLVED IN TRAFFIC FATALITIES TESTED POSITIVE FOR MARIJUANA, UP FROM 14.8% IN 2013

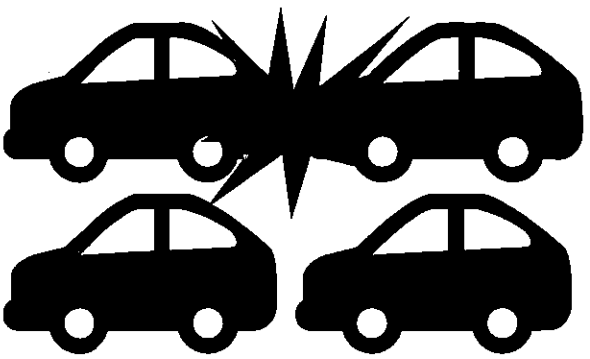
ROCKY MOUNTAIN HIGH INTENSITY DRUG TRAFFICKING AREA, 2021

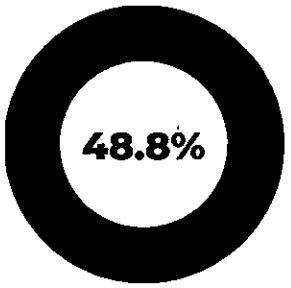
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1 IN 4

ROAD DEATHS IN COLORADO INVOLVE MARIJUANA

COLORADO DIVISION OF CRIMINAL JUSTICE, 2020.



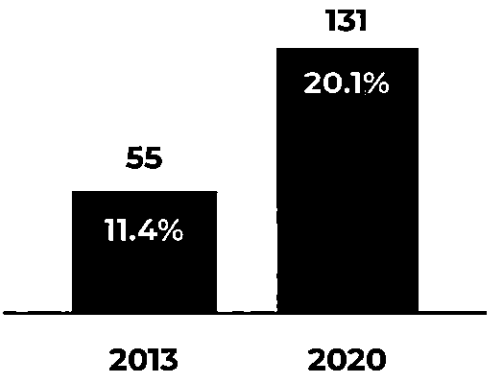


OF TEEN DRIVERS WHO USE MARIJUANA REPORT DRIVING UNDER THE INFLUENCE

LI ET AL., 2020

IN COLORADO, THERE WERE 131 MARIJUANA-RELATED TRAFFIC FATALITIES IN 2020, UP FROM 55 IN 2013—THE PERCENTAGE OF FATAL CRASHES THAT INVOLVED MARIJUANA NEARLY DOUBLED OVER THAT TIME PERIOD, INCREASING FROM 11.4% TO 20.1%

ROCKY MOUNTAIN HIGH INTENSITY DRUG TRAFFICKING AREA, 2021

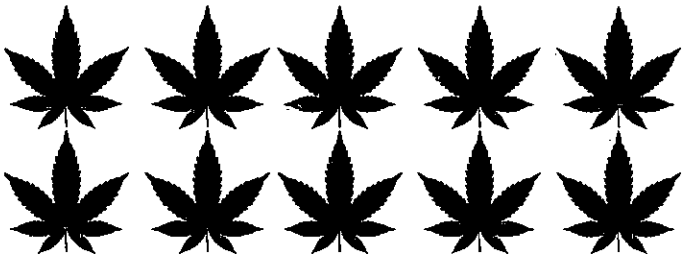


60% **OF PAST 3-MONTH USERS IN VIRGINIA REPORTED DRIVING WHILE UNDER THE INFLUENCE IN THE LAST FEW MONTHS**

26% **REPORTED DRIVING UNDER THE INFLUENCE OF MARIJUANA AT LEAST ONCE A WEEK**

STRATACOMM, 2022

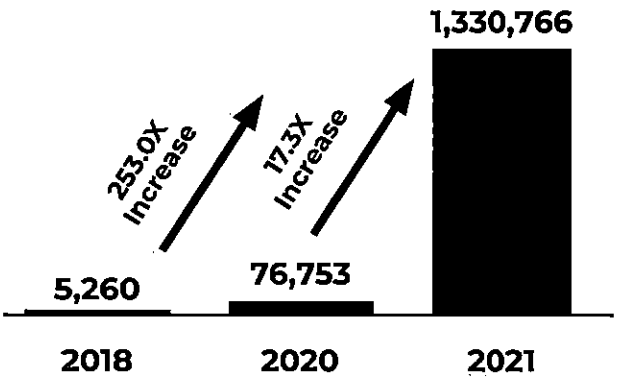
ILLICIT MARKET

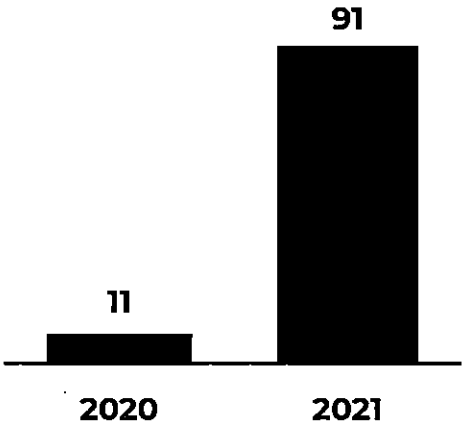


70-80%

of marijuana sold in state-legal dispensaries in California was produced and grown illegally

NBC NEWS, 2022





THE OREGON-IDAHO HIDTA SEIZED 1,330,766 ILLICIT MARIJUANA PLANTS IN 2021. THAT'S COMPARED TO 76,753 IN 2020 (17.3X INCREASE) AND 5,260 IN 2018 (253.0X INCREASE)

OREGON-IDAHO HIGH INTENSITY DRUG TRAFFICKING AREA, 2022B, P. 17

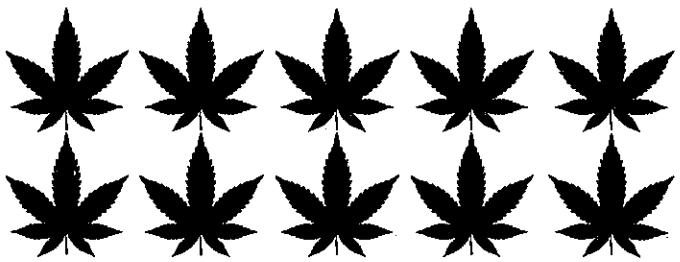
THE NUMBER OF CLANDESTINE LABORATORIES SEIZED IN THE HIDTA REGION INCREASED FROM 11 IN 2020 TO 91 IN 2021, WITH THE MAJORITY (90) RELATED TO CANNABIS EXTRACTION FOR THE PURPOSE OF PRODUCING "BHO/HONEY OIL"

OREGON-IDAHO HIGH INTENSITY DRUG TRAFFICKING AREA, 2022A, P. 11

85-90%

of California-produced marijuana is exported

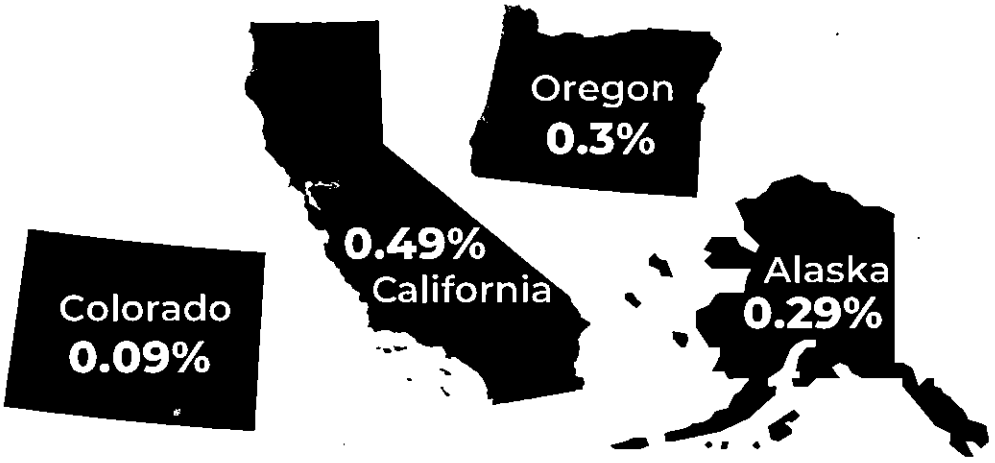
FULLER, 2019



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TAX REVENUE

MARIJUANA TAXES AS A PERCENT OF FY21-22 STATE BUDGETS:

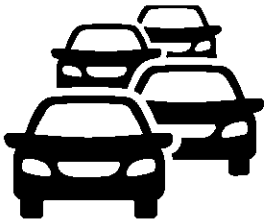


ENVIRONMENTAL IMPACT



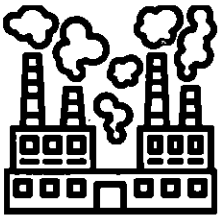
OUTDOOR MARIJUANA GROW SITES CONSUME AN ESTIMATED 29.4 MILLION GALLONS OF WATER PER YEAR IN CALIFORNIA

GRETA WENGART, INTEGRAL ECOLOGY RESEARCH CENTER CA 29.4 MILLION GALLONS MARIJUANA



INDOOR MARIJUANA GROWS EMIT AS MUCH CO_2 AS 3.3 MILLION CARS

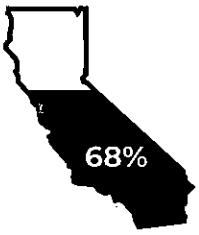
LARKIN & SWEENEY, 2022



MARIJUANA PRODUCTION IS NEARLY FOUR TIMES MORE ENERGY INTENSIVE THAN COAL OR OIL PRODUCTION

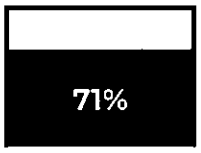
MILLS, 2012

LOCALITIES ARE OPTING OUT



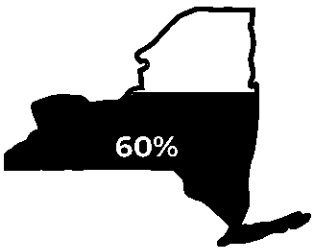
CALIFORNIA

NIEVES, 2021



COLORADO

FUEGO, 2019



NEW YORK

ROCKEFELLER INSTITUTE OF GOVERNMENT, 2022



NEW JERSEY

MJBIZDAILY, 2021

A MAJORITY OF LOCALITIES IN "LEGAL" STATES HAVE OPTED OUT OF MARIJUANA SALES

DATA AND POLICY BACKGROUND

In 2013, the U.S. Department of Justice (DOJ) decided to take a hands-off approach toward legalization at the state level. Officially, the DOJ stated it would only get involved if any of eight requirements laid out in the "Cole Memo" (e.g., sales to minors, increased drugged driving) were violated. Unfortunately, the DOJ took no meaningful action as states routinely violated the "Cole Memo," according to the U.S. Government Accountability Office (GAO). However, public health and safety departments and law enforcement agencies in "legal" states have produced primary data and impact reports that illustrate how current marijuana policies are failing to protect the health and safety of the general population (Alaska State Troopers, 2016; Financial Management, 2019; Grondel et al., 2018; Oregon Liquor Control Commission, 2018; Oregon Public Health Division, 2016; Oregon State Police Drug Enforcement Section, 2017; Oregon-Idaho High Intensity Drug Trafficking Area, 2018; Rocky Mountain High Intensity Drug Trafficking Area, 2019b).

In 2018, the DOJ rescinded the "Cole Memo," signaling an uncertain future for the marijuana industry. One thing is clear: by legalizing marijuana, states continue to violate federal laws. We now have more than ten years of data to show how these marijuana policy changes—and the industry they created—harm families and communities. This industry is chiefly driven by higher use rates and increased normalization, seeking to convert casual users and non-users into life-long customers. As we are only now beginning to address the far-reaching and devastating consequences of the addiction epidemic—driven largely, but not exclusively, by opioids—the rise of additional corporate promotion of drug use comes at an inopportune time.

Following the transition to the Biden administration, Attorney General Merrick Garland signaled that the DOJ would not pursue the prosecution of individuals who use marijuana in accordance with their state's respective marijuana laws. Garland has defended this position, in part, by arguing that, "Criminalizing the use of marijuana has contributed to mass incarceration and racial disparities in our criminal justice system" (Berman, 2021). Of note, the Biden administration fired would-be appointees who had previously used marijuana, highlighting the continued tension between federal and state-level marijuana laws (Berman, 2021). Additionally, in the administration's Fiscal Year 2023 budget proposal, they again blocked Washington, DC, from legalizing marijuana sales, although voters had previously supported legalization as a ballot measure (Rawnsley, 2021).

In October 2022, President Joe Biden issued a pardon for all individuals convicted under federal law for the simple possession of marijuana (Shear & Kanno-Youngs, 2022). He also urged governors across the nation to adopt a similar policy. While Biden's announcement was commended by supporters of criminal justice reform, others pointed out that no one was in federal prison solely for the possession of marijuana. Thus, although his policy retroactively helped 6,500 individuals who were previously charged, it did not free a single person from prison. Many of the people affected by this action also likely pled down from other charges. In November 2022, Governor Kate Brown, of Oregon, followed President Biden's steps, pardoning more than 40,000 individuals who had been charged for marijuana possession.

In December 2022, President Biden signed the SAM-drafted Medical Marijuana and Cannabidiol Research Expansion Act (H.R. 8454) into law. This groundbreaking and bipartisan bill is the first stand-alone marijuana reform legislation to become law in United States history.

RESEARCH ON MARIJUANA HARMS

Scientific literature on the harms of marijuana use exists in abundance and will be discussed in this report. More than 20,000 peer-reviewed research articles have linked marijuana use to adverse mental health outcomes, ranging from depression to psychosis, as well as consequences for physical health and even negative outcomes for neonates exposed in utero. The connections between marijuana use and negative consequences for mental and physical health, among other risks, are often lost in conversations surrounding legalization.

The distinction between medical and recreational marijuana has been deliberately blurred by an industry with a heavy hand in both markets. A recent study found that despite evidence that lower THC dosage is more appropriate for medical purposes, the medical marijuana products advertised in retail stores contained around the same amount of THC as recreational marijuana products, which generally contain upwards of 15% THC (Cash et al., 2020). And a 2022 study suggests that the risk of developing a cannabis use disorder increases as marijuana's THC level increases (Petrilli et al., 2022). Though there is potential for the medical use of certain components found within the marijuana plant, these components should be researched through well-designed clinical studies and under the guidance of the Food and Drug Administration (FDA). These are just a few examples of the conflict between data-driven research and the normalization of marijuana. The science is clear. Yet proponents of legalization continue to march forward, single-mindedly pursuing profits.

KEY OUTCOMES

Similar to the nation's troubled past with tobacco and alcohol, the full consequences of the commercialization of marijuana will take decades to materialize fully. However, researchers do not need to wait that long to understand certain key outcomes of commercialization. For example, the data in this report—and many others—show states that legalized marijuana often have the highest rates of marijuana use in the country. The data also show use is sharply increasing in vulnerable demographics, including youth and young adults whose brains are still developing. These states also have:

1. Higher rates of marijuana-related driving fatalities.
2. Issues with "legally" sold but contaminated marijuana vapes.
3. More marijuana-related emergency department visits, hospitalizations, and accidental exposures.
4. Expansive and lucrative criminal markets.
5. Exacerbated racial disparities in marijuana industry participation and criminal justice enforcement.
6. Increases in workplace problems, including labor shortages and accidents.

COMMERCIALIZATION: A GROWING CONCERN

The commercialization of marijuana results in negative consequences for public health, social justice, and public safety. Medical marijuana legalization gave way to recreational marijuana legalization in states across the country, and the industries maintaining both sectors have been heavily capitalized. The result is the creation of a new and powerful addiction-for-profit industry.

More people are using marijuana while remaining largely ignorant of its negative consequences. Additionally, usage rates are surging across the United States after years of declines. More than 52.5 million people aged 12 or older reported past-year marijuana use in the U.S. in 2021, a more than 20% increase from 2018 (Substance Abuse and

Mental Health Services Administration, 2018a, 2021a, p. 1). More than 45% of all adults reported trying marijuana at least once in their lifetimes. And 34.7% of 12th graders reported that they used marijuana in the past year (Miech et al., 2023). The United Nation's World Drug Report noted that there was a "General increase in cannabis use, with a narrowing gender gap and a more pronounced increase in frequent use among young adults" following legalization (UN Office on Drugs and Crime, 2022). The alarming increase in use among young people, in particular pregnant women, prompted then-U.S. Surgeon General Dr. Jerome Adams to issue a first-of-its-kind advisory on marijuana use (Office of the Surgeon General, 2019). Coinciding with increases in use, the concentration of THC in marijuana has steadily increased. Marijuana's THC concentration tripled between 1995 and 2014, and concentrated products, such as waxes, now contain up to 99% THC (Office of the Surgeon General, 2019).

Though his advisory specifically addressed significant increases in use among youth and pregnant women, he did not shy away from cautioning against marijuana use more generally. At one congressional hearing, Adams told senators, "I don't want anyone to mistake what I'm saying as implying that these products are considered safe for general adult usage" (Cornyn & Feinstein, 2019). In 2021, Surgeon General Dr. Vivek Murthy made similar comments in a Senate Finance Committee Hearing. Dr. Murthy warned:

> "I worry that there is a perception that marijuana is completely harmless in children." Surgeon General Dr. Vivek Murthy

"When it comes to youth, I worry that there is a perception that marijuana is completely harmless in children. Our data tells us otherwise. Our data tells that in fact a portion, a substantial minority, of people who use marijuana will actually develop an addiction to marijuana. That number is significantly higher among youth. When kids also have underlying mental health conditions, the impact of marijuana use can also be more significant. And, so, I worry Senator about the messages we may send that say this is 'utterly harmless' and 'there's no problem here'. We need to be responsible in how we teach our kids about marijuana. I think how we talk to families about marijuana use and I think health care providers also need to be empowered to have these conversations early on as well as teachers." (The United States Senate Committee on Finance, 2022)

HIGH-POTENCY MARIJUANA

In the 1970s, "Woodstock Weed" contained approximately 1–3% THC (ElSohly et al., 2000). Since then, products have become increasingly potent, driven in large part by industry-led innovation, market demand, and a shift in consumption methods. THC concentrates, such as shatter, budder, and waxes—as well as gummies and edibles—are packed with more THC than joints ever were. Now, even the marijuana plant itself is being genetically engineered to contain a higher percentage of THC. One study found that the average potency of the marijuana plant increased from 8.9% THC in 2008 to 17.1% THC in 2017. Concentrates, which contained an average potency of 6.7% THC in 2008, contained an average potency of 55.7% in 2017 (Chandra et al., 2019). The National Institute on Drug Abuse found that solvent-based products have been documented with an average of 54–69% THC and have been known to exceed 80% (National Institute on Drug Abuse, 2020, p. 2).

The market for marijuana flower hybrids and concentrates continues to rise with the increase in demand for products with higher THC potency levels. In Washington state, market share for flower products with 10–15% THC declined by 60.4% between 2014 and 2017, while the market share for flower products with more than 20% THC increased by 48.8% (Smart et al., 2017). In 2020, amid the outbreak of the coronavirus pandemic in Washington state, the retail sales

share of recreational marijuana generally increased, with a 0.7% increase in edibles and a 3.5% increase in flower from Jan-March to Apr-May (502Data, 2021).

In Oregon, concentrates and extracts surpassed flower in sales and comprise an increasingly large proportion of all marijuana sales. In December 2019 alone, nearly 1 million units of concentrates and extracts were sold in the state, and the number of units of edibles sold exceeded the pounds of flower marijuana sold (Oregon Liquor Control Commission, 2020). Retailers increasingly promote higher potency marijuana in order to drive profits—high-potency marijuana sells. Additionally, sales surpassed $1 billion in 2020, increasing from $795 million in 2019 (Oregon Liquor and Cannabis Commission, 2023), and the Oregon Liquor Control Commission anticipates that the supply of marijuana will further increase in coming years.

A leaked draft report from the Washington State Health Authority recommended enacting a number of policies to curb the rapidly increasing THC potency of products. These recommendations included an additional tax on products with more than 35% THC potency, raising the purchasing age of high-potency products to 25, prohibiting marketing and advertising of high THC products, high THC warning labels on high THC products, and required point-of-sale education about the risks of high THC products (Addictions, Drug & Alcohol Institute, 2022).

The demand for stronger marijuana threatens public health. The use of high-potency marijuana exacerbates many of the consequences of marijuana use. Frequent marijuana users and users of high-potency marijuana are more likely than regular users to develop schizophrenia and psychosis (Forti et al., 2019). Users of Butane Hash Oil (BHO), a marijuana concentrate that yields a potency of between 70–99% THC, are more likely to have lifetime diagnoses of depression and anxiety while being more likely to report other substance use (Chan et al., 2017).

Ultra-processed high-potency products are also more likely to contain residues and contaminates from production. This is not isolated to the illicit market. A study of 57 concentrates legally sold for dabbing in California found that almost 72% of the samples contained residual solvents, including isopentane, butane, and propane. One third of those samples also contained pesticide residues (Haggerty, 2020).

The lucrative cash potential of high-potency marijuana also emboldens illegal producers of BHO. Its production involves forcing raw marijuana and butane into a reaction chamber, which creates a highly combustible liquid that can easily explode when introduced to an ignition source. This has implications not only for public health but public safety as well.

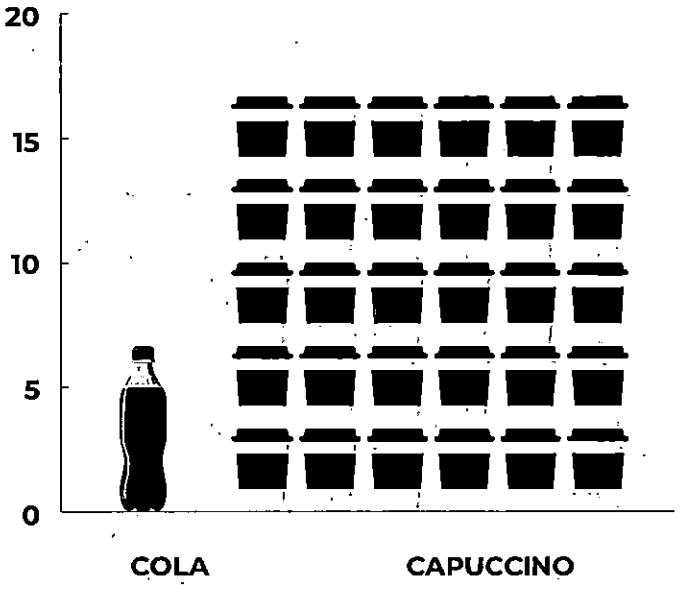
Between 2012 and 2018, over 100 marijuana extraction labs were seized in Oregon. More than 30 fires and explosions related to the production of this kind of marijuana were reported in the state in that time period. The number of labs seized in the area reached a new high of 39 in 2017, and another new record of 91 in 2021 (Oregon-Idaho High Intensity Drug Trafficking Area, 2019).

In addition to these concerns, BHO explosions led to an increasing number of BHO burn victims. The Oregon-Idaho High Intensity Drug Trafficking Area found that 87 marijuana extraction burn victims were treated from 2015 to 2017 (Oregon-Idaho High Intensity Drug Trafficking Area, 2019, p. 34). Since 2013, treatment costs for marijuana extraction burn victims have totaled $15 million.

Products with high amounts of THC proliferate with market demand and, as such, consequences associated with high-potency marijuana become more apparent.

NOT ONLY POTENCY, BUT CONSUMPTION LEVELS: WHAT DO USERS LOOK LIKE TODAY?

The change in the typical marijuana user today versus twenty years ago, according to Carnegie Mellon professor Jonathan Caulkins, is akin to thinking about a typical caffeine drinker consuming one 20-ounce cola worth of caffeine versus about thirty 16-ounce cappuccinos today.



Ounces worth of caffeine

It's important to think about legalization as akin to commercialization—this is very different than simply removing criminal penalties for personal possession. Case in point: As soon as a state legalizes, the industry moves to open up as many shops as possible.

In states where marijuana is "legal," retail and medical licenses outnumber popular food chains. For example, in Colorado, marijuana retail locations outnumber all McDonald's and Starbucks locations combined (MJBizDaily, 2019). Colorado has about 1,010 registered retail and medical marijuana shops combined (Colorado Department of Revenue, 2023) compared with under 200 McDonald's and around 100 Starbucks coffee stores. The overwhelming presence of marijuana stores promotes and further normalizes its use. A 2022 twin study found that use increases by about 20% after legalization (Zellers et al., 2023). There is no question that the legalization of marijuana is associated with increases in use and lower perceptions of risk.

Adding to the danger of marijuana commercialization is the increasing market demand for high-potency products created by the combination of aggressive promotion and ever-increasing tolerance by heavy users. With innovation, the industry responded to meet the demand it had created, modifying marijuana to increase its potency further. The commonly conceived "Woodstock weed" had between 1–3% THC, the psychoactive intoxicant responsible for the high; according to recent studies, today's average marijuana flower—touted by industry advocates as a harmless plant—contains approximately 17.1% THC. Independent studies in "legal" states have also found the percentage to be even higher, such as an average THC percentage of 18.7% in plant material in Colorado (Colorado Department of Public Health & Environment, 2020).

Concentrates and edibles pack a more potent punch, containing an average of 55.7% THC (Chandra et al., 2019). But increasingly common products can be even more potent, with many marijuana retailers promoting and profiting from products containing up to 95–99% THC (Prince & Conner, 2019).

STATE REGULATORY FRAMEWORKS STRUGGLE TO KEEP UP WITH THE NUMBER OF LICENSED SHOPS

One significant problem with high-potency products is the lack of regulation. Numerous studies have found that product regulation in "legal" states is limited (Lamy et al., 2016; Peace et al., 2016; Yates & Speer, 2018), and internal audits conducted by state governments have exposed holes in regulatory frameworks. In Oregon, for example, the Liquor Control Commission found that there is an average of one state inspector for every 83 marijuana licenses (OLCC, 2020). Public health advocates continue to advocate for THC potency caps. Vermont and Connecticut became the first states to cap the potency of concentrates at 60% (still 30 times the strength of just a few decades ago) and flower at 30%; Montana capped the potency of flower at 35% but did not place a comparable cap on concentrates. In all other states that have legalized medical or recreational marijuana, these sensible attempts have been quickly blocked by the marijuana industry (Vermont Cannabis Control Board, 2022).

The mislabeling of products also plagues the "legal" market. Studies have found that the labeling of active ingredients in concentrates and edibles often misrepresents the actual ingredients in those products (Peace et al., 2016). Consumers are often unaware of the contents of what they are smoking or ingesting, potentially leading users to consume more of a psychoactive product than they intended to.

Furthermore, the adaptability of marijuana gives way to mass-market products modeled after popular consumer goods. Marijuana-infused "edibles" come in the form of cookies, candy, ice cream, sodas, and other sweet treats that are particularly appealing to children (O'Connor & Méndez, 2016). Marketing tactics make use of bright colors and catchy names, replicating images or appropriating the names of well-known commercial food products. For example, "Pop Tarts," a widely consumed kid-friendly breakfast product, was used by one marijuana producer to market "Pot Tarts." Unfortunately, these products are thought to contribute to the increased accidental marijuana exposures among children and others. Stemming from the wide array of consumption methods and ways that marijuana can be infused with products, the American Addiction Center updated its definition of edibles in December 2022 to be "food products that have been infused with marijuana," meaning a marijuana edible can essentially be any consumable product (American Addiction Centers, 2022).



These kinds of growth tactics by the marijuana industry are not new. They largely mirror the boom of Big Tobacco in the early 1900s—and this did not occur by accident (Ayers et al., 2019; Richter & Levy, 2014). Although operators in the marijuana industry claim to be up-and-comers, they are now well-financed and advised by professionals from the tobacco industry. For example, Altria, the corporate owner of Marlboro, purchased a 35% stake in Juul shortly after acquiring a 45% stake in Cronos, one of the largest international distributors of marijuana (LaVito & Hirsch, 2018). The UK-based Imperial

Brands invested around $123 million CAD (~$94M USD) in Auxly, a Canadian marijuana company. This partnership, which gave Imperial Brands a 20% stake in the company, will focus on utilizing Imperial Brand's vaping technology to develop marijuana vaping products.

The marijuana industry has also caught the attention of Big Pharma and Big Alcohol. In March 2022, Pfizer finalized a $6.7 billion deal with Arena Pharmaceuticals, a company that develops cannabinoid-type therapeutics (Pfizer, 2022). Former Purdue Pharma executive John Stewart left the pharmaceutical industry to create his own marijuana company (Murphy, 2016). Teva Pharmaceuticals signed an agreement to become a medical marijuana distributor in Israel (Helfand, 2016). And Sandoz, a subsidiary of Novartis, signed an agreement with Tilray to distribute marijuana products (R.T.T. News, 2018).

Constellation Brands, the maker of Corona, purchased a 9.9% stake in Canopy Growth for $191 million, then upped the stake to 38% for $4 billion in 2018. The company has the option to increase its investment and purchase up to 139.7 million new shares at a price of up to $5 billion more (Sheetz, 2018). Blue Moon has also made substantial investments in the marijuana industry (B. Miller, 2018).

The full impact of these investments has been brought to light with the establishment of CPEAR, Altria and Constellation's advocacy organization funded to lobby for legalization at the federal and state levels (Coalition for Cannabis Policy, Education, and Regulation, 2023). In March 2022, CPEAR issued a problematic paper purportedly revealing that youth use does not increase in legalized states. In reality, CPEAR made conclusions based on national-level data trends, which of course include non-legal states, instead of only looking at state-level data for states with legal marijuana. Their analysis did not mention any of the dozens of studies showing increased use as a result of legalization. (Davidson, 2022).

The investments of these big industry players coincide with more covert action taken to push legalization forward. In an investigative report that examined marijuana interests in the UK, journalist Jonathan Gornall linked several commercial organizations with vested interests in the creation of a recreational marijuana market with individuals and activists pushing for more access to medical marijuana. What's more, he found that several tobacco companies were funding studies on medical marijuana, an activity that calls for questioning into the validity of that research (BMJ, 2020).

These connections are unsurprising. Marijuana commercialization presents addiction-for-profit industries, which have long been under public scrutiny, with new and innovative pathways to profits.

ADVERSE HEALTH EFFECTS OF MARIJUANA

Contrary to popular belief, marijuana is a harmful drug. The main psychoactive ingredient in marijuana, THC, causes many different types of mental and physiological health problems—especially in children, young adults, and pregnant women. Its addictive properties exacerbate its potential harms as marijuana users become dependent on the drug.

Researchers found that marijuana is an addictive drug (Volkow et al., 2014). Brain scans of marijuana users show changes in the structure of the brain's reward center to be consistent with addiction (Gilman et al., 2014), and up to 47% of regular users experience withdrawal symptoms when they cease use (Bahji et al., 2020; Hasin et al., 2008). The National Institute on Drug Abuse reports that approximately 30% of marijuana users have marijuana use disorder and that people who begin using marijuana before the age of 18 are up to seven times more likely to develop a marijuana use disorder compared with those who start later (National Institute

on Drug Abuse, 2019a). One study found that marijuana vaping may support "conditioned drug-seeking behavior," which is a cause for concern as vaporized marijuana gains popularity (Freels et al., 2020). A 2022 study found that youth who use e-cigarettes are significantly more likely to report marijuana use within one year (Sun et al., 2022).

Marijuana has also been found to cause severe consequences for mental health. Marijuana is increasingly linked to the onset of psychosis and schizophrenia (Henquet et al., 2005; Marconi et al., 2016; Mustonen et al., 2018; Niemi-Pynttäri et al., 2013) and shows a more modest association with depression and anxiety (Agrawal et al., 2017; Duperrouzel et al., 2018; Gobbi et al., 2019). In one of the most comprehensive studies to date on marijuana and psychosis, Di Forti et al found that daily marijuana use is associated with an increased likelihood of developing psychosis. What's more, they reported a more than four-times odds of daily users of high-potency marijuana developing psychosis (Di Forti et al., 2019). Additionally, a 2021 study found that cannabis use disorder in Denmark has been increasingly associated with schizophrenia; 2% of cases of schizophrenia were linked to cannabis use disorder in 1995, but this increased to 8% in 2010 (Hjorthøj et al., 2021).

A randomized clinical trial published in 2022 found that upon obtaining a medical marijuana card, patients suffered an "increased incidence and severity of cannabis use disorder (CUD) and resulted in no significant improvement in pain, anxiety, or depressive symptoms, but improved self-reported sleep quality" (Gilman et al., 2022).

"Compared with never users, participants who used high-potency cannabis daily had **4x higher odds of psychosis** in the whole sample." (Di Forti et al., 2019).

There was a 25% increase in cannabis use disorder (CUD) among 12–17-year-olds in "legal" states (Cerdá et al., 2020). This population is also more likely than adults to develop a cannabis use disorder if they begin using marijuana at that age (Cerdá et al., 2020).

Chronic marijuana use increases the likelihood of anxiety in adults in their late twenties and older, and those who met the criteria for CUD had a high risk of adverse mental health symptoms across all ages (Leadbeater et al., 2019).

These studies are worth noting, particularly as marijuana is being increasingly marketed as a solution for anxiety and other mental health ailments.

Frequency of marijuana use, as well as higher THC potency, is associated with the most severe impact on mental health, which is evidenced by psychosis, suicidality, the reshaping of brain matter, and addiction (Cinnamon Bidwell et al., 2018; Fischer et al., 2017; Forti et al., 2019; Pierre et al., 2016). The increasing demand for high-potency marijuana products and the coinciding prevalence of CUD are indicative of a future maelstrom with unknown consequences for public health, especially as the industry engages in a concerted effort to undermine scientifically proven risks of marijuana use. The legalization of marijuana coincides with a nationwide increase in CUD. According to the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey on Drug Use and Health (NSDUH), 16.3 million Americans reported having marijuana use disorder in 2021, nearly four times as many people compared to 2019 (Substance Abuse and Mental Health Services Administration, 2021d). Part of this increase is due to a change in methodology, but the overall upward trend

of CUD is concerning and is no doubt because of the normalization of marijuana. In addition to this alarming trend, more Americans who report any or serious mental illness issues also reported past-year marijuana use. Co-occurring mental illness and substance use disorder was higher among past-year marijuana users than past-year opioid users (Substance Abuse and Mental Health Services Administration, 2019b).

Commercialization advocates have also suggested that marijuana may help those with PTSD, a claim with particularly important implications for veterans. This may be a dangerous assumption. Two studies conducted on military personnel experiencing PTSD found an elevated risk for suicidal thoughts and behaviors among those using marijuana (Allan et al., 2019; Gentes et al., 2016).

Marijuana is also linked to significant physical ailments. Researchers have found a connection between marijuana use and lung damage (Hancox et al., 2022), as well as serious cardiovascular problems, including hypertension, myocardial infarction, cardiomyopathy, arrhythmias, stroke, and cardiac arrest (Bigay-Gamé et al., 2018; Hall & Lynskey, 2016; Pacher et al., 2018). The American Lung Association has highlighted the health impacts of marijuana, noting the specific risks associated with each way that it can be consumed, such as via pipes, bongs, and paper-wrapped joints (American Lung Association, 2022).

Studies have found marijuana to be linked to certain types of cancer (Liu et al., 2020), including testicular cancer (Ghasemiesfe et al., 2019; Gurney et al., 2015).

MARIJUANA AND PREGNANCY

Government officials are increasingly sounding alarms on marijuana use during pregnancy after research and reports have revealed that more pregnant women are using the drug. In Alaska, for example, 9% of women who delivered a baby in 2017 reported having used marijuana during their pregnancy (Alaska Department of Health and Social Services, 2020). In fact, in Colorado, researchers found that seven in 10 dispensaries recommended marijuana to women posing as pregnant women (Nedelman, 2018).

Researchers at Boston University found that marijuana use among men may double the risk of partner miscarriage—regardless of the woman's use (McAlpine, 2019). Additionally, marijuana use during pregnancy is accompanied by a host of risks for the baby. Use during pregnancy may affect cognitive development by increasing the risk of hyperactivity, impulsivity, and inability to focus (Huizink & Mulder, 2006; G. S. Wang et al., 2017). Prenatal exposure to marijuana also predisposes offspring to neuropsychiatric disorders (Frau et al., 2019). A mother's marijuana use during pregnancy may also increase the risk of low birth weight, preterm birth, neonatal intensive care unit placement, and developmental problems (Gunn et al., 2016; Kharbanda et al., 2020). Low birth weight and preterm birth increase the risk of short- and long-term complications for the child (Clinic, 2017).

A 2022 retrospective cohort study in Colorado found that "legal" recreational marijuana is associated with a two-fold increase in marijuana-related hospitalizations of pregnant women (G. S. Wang et al., 2022). Of course, the risk to mothers is not the only concern. A 2023 study found that prenatal exposure to THC has long-term effects and inhibits brain and neural development in babies (Peng et al., 2023). In 2022, the largest long-term study of

brain development and health in children and teens in the US, the Adolescent Brain Cognitive Development Study, reported attention, social, and behavioral problems in children who were exposed to marijuana in the first trimester (National Institute on Drug Abuse, 2022). A 2019 study found that parental marijuana use increases the likelihood of marijuana use among children in the household, as well as increases their risk of tobacco and opioid use (Madras et al., 2019).

Dr. Nora Volkow, the director of the National Institute on Drug Abuse, published a report in response to this alarming trend developing across the country and warned of the detrimental health risks of in utero cannabis exposure (Volkow et al., 2017). Tragically, in 2019, a newborn whose mother reportedly used marijuana while pregnant was found dead at just 11 days old and doctors believe the cause was acute marijuana toxicity (Bao & Bao, 2019). The trend in marijuana use during pregnancy even prompted the U.S. Surgeon General to issue an advisory that warned women not to use marijuana to alleviate nausea during pregnancy (Office of the Surgeon General, 2019).

MARIJUANA AND CO-USE WITH OTHER SUBSTANCES

Some industry proponents claimed that legalizing marijuana would reduce the use of other substances in the United States, such as alcohol and opioids. Common industry rhetoric holds that former alcohol users will switch to marijuana if it is made legal. They also suggest that legalization will be "the exit to the opioid crisis" (MadMoney, 2018) and cite a since-debunked and severely flawed study that seemed to show a decrease in opioid overdoses in states that legalized medical marijuana.

For instance, a 2021 study found that the implementation of recreational marijuana laws in 2017 was associated with a decline in opioid-related emergency department visits; however, the decline did not continue after the six-month mark, suggesting that marijuana users began using opioids again (Drake et al., 2021). Researchers in 2022 found that legalization has contributed to the opioid epidemic, and this was especially pronounced among Black Americans (Bleyer et al., 2022).

Amid the third wave of the decades-long opioid crisis (Centers for Disease Control, 2019c) and in a population in which nearly 14.5 million people are impacted by alcohol use disorder (National Institute on Alcohol Abuse and Alcoholism, 2020), the false assertions by the marijuana industry are harmful and not backed by science.

A 2014 study (Bachhuber et al., 2014) suggested medical marijuana legalization was associated with a decrease in opioid-related deaths until 2010. However, a more recent study of that data showed the opposite. This 2019 study, which now includes more years of data, found instead that marijuana legalization coincided with a 23% increase in opioid-related deaths after 2010 (Shover et al., 2019). (However, the study notes that medical marijuana legalization, more likely than not, had no impact on opioid-related deaths.) Medical marijuana users, according to the findings of this study, represent 2.5% of the U.S. population; consequently, the legalization of medical marijuana is likely incapable of exerting a demonstrable impact on opioid overdose deaths. Other studies have supported this finding (Caputi, 2019). The positive correlation found in this study is still worth further examination, given the relationship between marijuana use and opioid misuse. A 2021 study found that marijuana use was 34% higher in study participants who also misused prescription opioids as opposed to those who did not misuse prescription opioids, which undermines the premise of the possibility of marijuana being a solution to opioid misuse (Arora et al., 2021).

Studies have found a link between marijuana and opioid use, as well as marijuana and future use of other drugs. In particular, marijuana exposure in adolescence seems to impact future opioid use (Ellgren et al., 2007). A large proportion (44.7%) of lifetime marijuana users ultimately use other drugs (Secades-Villa et al., 2015). A study by Azagba and colleagues (Azagba et al., 2019) found marijuana users were more likely than non-users to report prescription opioid misuse, echoing an earlier study that demonstrated that participants who reported marijuana use in the previous year were 2.6 times more likely to misuse non-prescription opioids (Olfson et al., 2018). A 2021 study also found an association between the implementation of marijuana home cultivation and an increase in opioid-related hospitalizations and emergency department visits (Jayawardhana & Fernandez, 2021).

A body of research shows early marijuana use can more than double the likelihood of other drug use later in life (Olfson et al., 2018; Secades-Villa et al., 2015). In fact, according to the National Survey on Drug Use and Health, 95–97% of people who used cocaine or heroin started with marijuana (Substance Abuse and Mental Health Services Administration, 2019b). The scientifically validated relationship between substance misuse and marijuana use is difficult to ignore.

Marijuana is often lauded as a plausible substitute for opioids in the treatment of pain. But mounting evidence suggests that marijuana use—particularly chronic use—is associated with poor pain control (Salottolo et al., 2018). A 2022 meta-analysis found that marijuana is no better than a placebo at relieving pain. (Gedin, 2022). A study found adults with pain are vulnerable to adverse marijuana use outcomes, a finding that calls into question the prescribing of marijuana as a pain reliever (Hasin et al., 2020). Considering that severe pain continues to be one of the most common reasons for obtaining a medical marijuana card—93% of registered cardholders in Colorado reported severe pain as the reason for marijuana use (Colorado Health Institute, 2019)—current state policies should be reconsidered.

A four-year prospective study in the highly respected journal The Lancet Public Health followed patients with chronic non-cancer pain and found no evidence marijuana use mitigated pain severity or interference or that marijuana affected rates of opioid prescribing or opioid discontinuation (Campbell et al., 2018).

MARIJUANA'S ASSOCIATION WITH ALCOHOL AND OTHER DRUGS

Rising alcohol use is also an issue, and some have suggested that marijuana may be a substitute for alcohol use. However, a 2022 report found that alcohol consumption did not go down in states with legal marijuana; instead, legalization resulted in an increase in the co-use of marijuana and alcohol (Gonçalves et al., 2022). According to a 2018 report, Washington state saw a 9% increase in gallons of beer consumed since legalization (Sauter, 2018). Since legalization in Colorado, state officials recorded a 7% increase in gallons of alcohol consumed (CO Department of Revenue, 2019). And according to America's Health Rankings, 20.5% of adults in Colorado reported binge drinking in 2021, compared to the national average of 17.3% (America's Health Rankings, 2022). Other studies showed no meaningful decrease in alcohol use since legalization (Haughwout et al., 2016). Further analysis found that, "Allowing for changes in the adult population over the period 2005–2017, the data show a continuing increase in wine servings alongside...legalization" (Pellechia, 2018). Most recently, a 2023 study found that marijuana use was associated with the co-use of alchohol regardless of state- and national-level marijuana policies.

Rather than discouraging polysubstance use, which is the use of multiple drugs, marijuana

legalization is associated with further use, misuse, and dependence on other drugs. While the "gateway" effect of marijuana is sometimes considered outdated, the association between the use of marijuana and other drugs is supported by science. Marijuana use often predicts future drug use—ranging from tobacco and alcohol use to opioid use.

Marijuana use itself may be forecasted by other, seemingly less harmful drugs, such as tobacco and alcohol. Among high schoolers who first initiated alcohol use by 12th grade, subsequent marijuana use was more likely. Marijuana seems to both impact—and be impacted by—tobacco use in younger age groups (Keyes et al., 2019). Moreover, a 2021 study found that "Respondents reporting at least one family member or peer using e-cigarettes were more likely to use e-cigarettes" compared to respondents whose family members did not use them, illustrating how one's social environment influences his or her drug use (Coleman et al., 2021).

A 2018 study published in the Journal of Studies on Alcohol and Drugs found that, similar to tobacco and alcohol co-users, marijuana and alcohol co-users were more likely than non-marijuana alcohol users to overvalue alcohol, signaling a dependence on both drugs (Morris et al., 2018). Marijuana use is also associated with an increased likelihood of alcohol use disorder (Weinberger et al., 2016). In 2021, researchers found co-users of alcohol and marijuana are over three times more likely to suffer from alcohol use disorder (Waddell, 2021). Another study in the same year from the CDC found that "During 2015–2019, one third (34.4%) of Colorado adults who binge drank used marijuana compared with one tenth (9.9%) of nondrinkers" (Crawford, 2021).

The commercialization of marijuana perpetuates an understatement of the dangerous consequences of marijuana use, adding to the social burden of addiction rather than subtracting from it.

MARIJUANA VAPING

The vaping of marijuana in THC oil pods and cartridges is a relatively new yet rapidly exploding marijuana-industry innovation. Vaping quickly delivers 70–90% THC concentrates to users by heating extracted oils so that they can be inhaled as vapor. No studies on consumer safety were conducted prior to the mass marketing of vaporizers, which are also popular among tobacco users.

Vaping is popular among youth because vapes can be easily concealed and produce less (if any) odor, as compared to other consumption methods. In 2022, 27.5% of 12th graders reported vaping marijuana in the last year (Miech et al., 2023). Vaping has been normalized among youth, and many have transitioned from smoking marijuana to vaping it. Between 2017 and 2022, the percentage of 12th graders who vaped marijuana almost tripled from 9.5% to 27.5% (Miech et al., 2023). A study in Addiction found "cannabis vaping is increasing as the most popular method of cannabis delivery among adolescents in the United States, and that frequent (six or more times per month) use is increasing faster than occasional use." The CDC's 2019 Youth Risk Behavior Surveillance System found 50.1% of high school students had tried electronic vapes and 10.7% of high schoolers used those products on 20 or more days in the past 30 days (Abuse, 2022c).

In Michigan, the state's regulatory agency was forced to issue a recall on vaping products sold at state-licensed dispensaries after it was revealed that several of them contained vitamin E. acetate (Neavling, 2020). Another recall implicated 3,400 "legal" cartridges. In November 2021, the Michigan Marijuana Regulatory Agency issued a marijuana product recall, impacting more than 400 sales locations throughout the state, citing "inaccurate and/or unreliable results" (LeBlanc, 2021).

In the spring of 2020, a whistleblower revealed that Hawaii's standards for medical vapes were far below the standard of any other state, putting patients at risk. Almost half of vapes subjected to a blind test were found to contain ethanol levels so high that the cartridges would be illegal if sold in states in the likes of California, Colorado, and Washington (Blair, 2020).

Legalization will not solve the problem of contaminated products because standards will continue to be unmet; that comes with potentially deadly implications for consumers and patients alike.

EMERGENCY AND HOSPITAL ADMISSIONS

The widespread availability and accessibility of high-potency marijuana due to legalization has resulted in an increasing number of marijuana-related poison control calls, hospitalizations, and ER visits.

A 2022 study published in Pediatrics found a 1,375% increase in accidental edible marijuana exposure in children under the age of 6 from 2017 to 2021 (Tweet et al., 2023). Additionally, a 2022 study found that hospital discharges for marijuana-associated psychosis were higher in states with legal marijuana (Moran et al., 2022). These results are underlined by an earlier study that found the commercialization of recreational marijuana is associated with a 66–77% increase in marijuana exposures. State-specific data shed greater light on this phenomenon (Shi & Liang, 2020).

A study published in March 2022 found that after California legalized marijuana, there was a significant increase in hospitalizations and emergency room visits by children who had some sort of marijuana exposure. Researchers found that 43% of patients presented with complaints of suicidal ideation (Harvey et al., 2022).

In Colorado, the number of marijuana-related emergency department visits increased 54% from 2013 to 2017. Yearly marijuana-related hospitalizations increased 101% in that same period (Colorado Health Institute, 2019). Calls to the poison control center for marijuana exposures also increased. In 2013, 125 calls were made for marijuana-related exposures. By 2018, that number jumped to 266, representing a 113% increase. Youth cases—instances of marijuana-related exposures of children aged 8 or younger—increased 126.2% from 2013 to 2018. In 2018, youth cases represented more than half of all marijuana-related exposure calls to the Rocky Mountain Poison and Drug Center (Rocky Mountain High Intensity Drug Trafficking Area, 2021).

A study by the Colorado Department of Public Health and Environment found that in 2018, over 23,000 homes in the state with children aged one to 14 years had marijuana products stored in an unsafe manner (Colorado Department of Public Health & Environment, 2018). In 2018, 60% of youth (0-8 year old) marijuana exposures involved edibles, compared with just 18% in 2016 (Rocky Mountain High Intensity Drug Trafficking Area, 2021, p. 28). Even when packaging is compliant with Colorado's regulatory requirements, it often fails to discourage and prevent children from accessing potent and dangerous marijuana. There has also been a steep increase in youth marijuana exposures nationwide. There were 598 in-home exposures involving children younger than 12 in 2018; in 2020, that number increased to 2,473 (Russo, 2021).

Researchers who studied the impact of medical marijuana legalization also found many pediatric marijuana exposure cases in the state, despite childproof packaging and warning labels (Whitehill et al., 2019). During the eight-year period studied, the Regional Center for Poison Control and Prevention (RPC) recorded a 140% increase in single substance (marijuana) exposures, with 81.7% of these calls regarding marijuana exposures of 15–19-year-olds.

A study conducted in Washington state found that the rate of pediatric exposures to marijuana among children aged 9 or younger was 2.3 times higher following legalization (A. A. Thomas et al., 2019). Poison control center cases in Washington state have increased 103.2%. Cases for children aged 5 and younger increased by 176.5%. In 2018, there were 497 calls—compared with 245 when legalization in the state began (Washington Poison Center, 2018).

Following legalization in Illinois, hospitalizations for children who accidentally consumed edibles spiked. In Cook County, three children were hospitalized in 2017 for THC exposure, but in 2021, 124 children in Cook County were hospitalized (Ponce, 2022).

In Alaska, in 2017, there were a total of 3,296 inpatient discharges and 6,639 outpatient discharges related to marijuana (ADHSS, 2020). In Illinois, just several days after legalization, doctors reported a surge in emergency room visits and hospitalizations for marijuana, including several cases of marijuana-induced psychosis (McCall, 2020).

Though it is true that marijuana misuse does not result in the same kind of immediate overdose that other drugs may cause, cases of Cannabinoid Hyperemesis Syndrome (CHS)—or sometimes Cannabis Vomiting Syndrome (CVS)—have increased significantly since legalization. CHS is a disease that presents as episodes of screaming and vomiting, dubbed "scromiting," and the only effective treatment is the immediate stoppage of marijuana use. The disease primarily affects heavy, daily users of marijuana.

From 2010 to 2014, researchers recorded a 46% increase in CHS cases in Colorado (Bhandari et al., 2019). Another study of CHS in Colorado found at least two deaths that were caused by CHS and recorded a third death that CHS is believed to have contributed to (Nourbakhsh et al., 2019). This phenomenon was not reported before 2004.

Additionally, there is mounting evidence that marijuana users are more likely to be hospitalized for serious adverse health events, including bodily injury (G. S. Wang et al., 2017), falls (Workman et al., 2021), skeletal fractures (Sophocleous et al., 2017), and acute trauma (Vozoris et al., 2022). In fact, a 2022 study found that marijuana users were nearly 25% more likely than non-users to be hospitalized or go to the emergency room (Vozoris et al., 2022). A 2022 study "observed a higher proportion of hospital discharges for psychosis associated with cannabis use in areas with more liberal cannabis legalization laws" (Moran et al., 2022).

The dramatic increase in emergency cases related to marijuana exposure highlights the danger of commercialization. In many instances, the danger impacts children or people who mistakenly consume marijuana. Innocent, unwitting citizens are subjected to the consequences of a situation that they did not create.

IMPACT ON YOUTH

The legalization of marijuana has had a profound impact on rates of youth use, coinciding with decreases in risk perception.

Years of playing catch-up to alcohol and tobacco normalization have resulted in important downward trends in youth alcohol and cigarette use. But a new wave of substance use among children is appearing. Given the relationship between marijuana use, alcohol use, and cigarette use, it is important to note that usage rates of all substances among youth may rise if the dangers of youth marijuana use go ignored.

While some marijuana industry proponents have suggested that a strict legal marijuana market would limit youth use, marijuana use among youth is rapidly increasing concurrently

with legalization—while perceptions of risk associated with use are decreasing. For instance, a 2022 analysis of a longitudinal cohort study of 21,863 individuals found that youth in states with legal recreational marijuana were more likely to use marijuana than youth in non-legal states (Knopf, 2022). A 2021 study found that 33% of 16–18-year-olds reported marijuana use (Masonbrink et al., 2021). A 2022 study found that this demographic of users, aged 16-17, are more likely to have severe CUD than adult users (Lawn et al., 2022).

Risk perception is directly related to use. A 2022 study found that in legal states, youth have lower perceptions of risk of marijuana use and higher rates of use compared to non-legal states (Bhatia et al., 2022). The pro-legalization Cato Institute also found, "All states that have legalized marijuana fall below the average U.S. risk perception" (Dills et al., 2021).

Compounding this problem are the increasing rates of use by adults. The 2021 Monitoring the Future report found the highest instance of marijuana use in young adults aged 19–30 since 1988, with 43% of young adults reporting use in the past year (University of Michigan Institute for Social Research, 2022, p. 56).

In part, the ease of obtaining marijuana has contributed to youth use in "legal" states. Restrictions on selling to minors have not stopped state-sanctioned vendors from selling the drug to underage consumers in "legal" states. In 2020, 41% of young people nationwide aged 12 to 17 indicated that they perceived marijuana to be easy or fairly easy to obtain (Substance Abuse and Mental Health Services Administration, 2020b). In Washington state, where marijuana is "legal," this number is much higher, with 51% of 12th graders believing that marijuana was easy to obtain (Washington State Healthy Youth Survey, 2021). Additionally, 38% of high school students nationwide reported having used marijuana at some point in their lives (Centers for Disease Control, 2019a).

Youth use marijuana differently and are affected by marijuana differently. Developing brains are particularly susceptible to both short- and long-term negative repercussions. A 2022 study found that youth marijuana users are more likely to have severe CUD and are more likely to have greater psychotic-like symptoms than adult marijuana users (Lawn et al., 2022).

Youth aged 12-17 have seen a 145% increase in rates of Cannabis Use Disorder from 2018 to 2021 (Substance Abuse and Mental Health Services Administration, 2018, 2021).

In Washington state, marijuana violations have remained high since legalization in 2014. As of December 2019, 3,220 violations have been documented. Violations pertaining to the sale or service of marijuana to a minor, or for allowing a minor to frequent a restricted area, comprised 16.3% of all of these violations (Washington State Liquor and Cannabis Board, 2020). A study of youth in Seattle also found that "nonmedical marijuana legalization predicted a higher likelihood of self-reported past-year marijuana and alcohol use among youth" (Bailey et al., 2020).

Among 11th graders in Oregon who currently use marijuana, 67% reported obtaining marijuana from a friend (Oregon Health Authority, 2016). Furthermore, 37.2% of 8th and 49.5% of 11th graders reported being exposed to online marijuana advertisements in the past 30 days (Oregon Health Authority, 2017). A study found that one in three youth living in a state where marijuana is "legal" engaged with marijuana promotions on social media. The same study found that youth who engaged with marijuana promotions were five times as likely to use marijuana (Trangenstein et al., 2019).

In Washington state, 44% of 8th graders believed there to be no or low risk from regular marijuana use, while 40% of 10th and 12th graders reported no or low risk from regular marijuana use. 67% of 10th and 12th graders in the state reported

no or low risk of trying marijuana once or twice (WSHYS, 2021).

Additionally, near-daily marijuana use—as reported by the University of Michigan's Monitoring the Future (MTF) survey—increased dramatically from 2018 to 2019; 6.4% of 12th graders, 4.8% of 10th graders, and 1.3% of 8th graders reported near-daily marijuana use in 2019. The increase in near-daily marijuana use among 8th graders is particularly concerning: near-daily usage rates jumped 85.7% from 2018 to 2019 (Miech et al., 2019). The University of Michigan also found that marijuana use in the past 12 months and in the past 30 days had reached the highest levels ever reported since 1988 (Monitoring the Future, 2021, p. 2). Notably, because of the implications of the COVID-19 pandemic (e.g. parental supervision as a result of remote learning environments), youth use decreased from these highs in 2021 and 2022 (Miech et al., 2023). It remains to be seen what will happen with these national numbers as kids return to school and normal living and learning environments.

Youth marijuana vaping has added to the already-alarming trend of increasingly prevalent marijuana use among young people amid widespread commercialization. Trends in youth vaping have given way to a countrywide epidemic (Centers for Disease Control, 2019b) that presents implications for youth marijuana use. Youth vaping of any kind (tobacco or flavors) has been shown in several studies to increase the likelihood of subsequent marijuana vaping or marijuana use generally (Chadi et al., 2019; Kowitt et al., 2019; Sun et al., 2022).

Past-year youth vaping of marijuana has increased dramatically since the MTF survey began recording data on the subject in 2017. As reported by this survey (Miech et al., 2019), lifetime, annual, and past-month marijuana vaping among 8th, 10th, and 12th graders has all dramatically increased in just one year. Past-month use among teenagers increased over 167% from 2017 to 2022. An average of 10% of teens reported past-month marijuana vaping in 2019. In 2019, MTF first recorded data on near-daily marijuana vaping and found that 2.4% of this age group vaped marijuana almost every day. That number exceeds near-daily cigarette and near-daily alcohol use among this group. A 2021 study found that vaporized marijuana was among the most socially acceptable modes of use among youth (Romm et al., 2021).

As marijuana legalization advocates have argued that youth marijuana use falls in conjunction with legalization, it is important to note trends in use in states that have legalized the drug. More young people use marijuana in "legal" states—and they use it more frequently. A recent study "suggests an increase in adolescent past-month consumption of cannabis following legalization" (Lachance et al., 2022). These trends are driven by the decreased perception of risk as well as the increased availability of marijuana that accompanies legalization. Nationally, fewer people, especially youth, perceive a risk from smoking marijuana. This downward trend is driven by the relaxed approach to marijuana in states where it's "legal."

A 2023 study found that not only do rates of youth past-month marijuana use increase in legal states, but perception of harm decreases. This study also found that despite higher use in youth and young adults, fewer people are receiving treatment for CUD (Mennis et al., 2023). Researchers were careful to note that lower CUD treatment utilization does not mean lower rates of CUD, but means more people need treatment and fewer are receiving it. Rates of CUD are increasing as potency increases and perception of harm decreases; in fact, 1 in 3 past month users of marijuana in the U.S. meet the criteria for CUD diagnosis (Lehman, 2022).

Despite claims by the marijuana lobby that adolescent use is not higher in "legal" states, researchers using the Monitoring the Future

study found increases in use following legalization in Washington state among 8th, 10th, and 12th graders (Cerdá et al., 2017). This was confirmed by University of Washington researchers, who published in the American Journal of Preventive Medicine and found that marijuana legalization predicted a six-fold increase in self-reported past-year marijuana use among youth when controlling for birth cohort, sex, race, and parent education (Bailey et al., 2020).

An average of 16.4% of 12–17-year-olds in "legal" states reported past-year use in 2017/2018, and an average of 9.4% reported past-month use (Substance Abuse and Mental Health Services Administration, 2018b). In California, Colorado, Massachusetts, and Nevada, past-month marijuana use among young people jumped over 4% in each state from 2016/2017 to 2017/2018. In Washington state, use increased even more dramatically: 9.9% of young people reported past-month marijuana use, marking a near 11% increase in past-month use from 2016/2017. An independent report in Alaska found that 22% of high schoolers in the state reported past-month use in 2019 (Alaska Youth Risk Behavior Survey, 2019).

A study found legalization "in California was associated with an increase in adolescent marijuana use in 2017–2018 and 2018–2019," which is troubling because "increases observed in California may portend continued increases in adolescent marijuana use in future years if marijuana use becomes more popular among legal age adults and more normative in California" (Paschall et al., 2021). The study also found that after California legalized, teens were 18% more likely to consume marijuana at any point in their lives and 23% more likely to consume in the last 30 days (Paschall et al., 2021).

These nationwide increases far exceed marijuana use rates among youth aged 12 to 17 in states where marijuana remains illegal (Substance Abuse and Mental Health Services Administration, 2019a). According to 2018/2019 pre-pandemic, state-specific data in the NSDUH, 12.4% of youth in non-legal states reported past-year marijuana use and 6.6% of young people in those states reported past-month use. Comparatively, use rates for 12–17-year-olds in "legal" states are several percentage points higher: 16.5% for past-year use and 9.2% for past-month use (Substance Abuse and Mental Health Services Administration, 2019a).

The issue of marijuana use among youth in "legal" states is further elucidated by data taken on first-use rates—the percentage of young people initiating marijuana use in the past year (Substance Abuse and Mental Health Services Administration, 2019a). The average rate of first use in "marijuana-legal" states was 7.3% in 2018/2019. In states where marijuana remains illegal, first-use among 12- to 17-year-olds in 2018/2019 was 5.6%.

Marijuana commercialization—and the subsequent normalization of marijuana use—plays an important role in the increased marijuana use of young people. A 2017 study found that the longer duration of legalization and higher dispensary density was associated with increased use of vaping and consumption of edibles by 14–18-year-olds (Borodovsky et al., 2017). Marijuana dispensary density has been linked to more use among youth, with 16% of 11th graders reporting marijuana use in areas with less dispensary density compared to 24.3% of the same age group reporting use in more retail-dense areas (A. Hatch, 2017). And a 2020 study found that regular exposure to marijuana advertising raises the likelihood of adolescents using marijuana (Fiala, 2020).

A 2020 study by the University of Washington finds that marijuana legalization and commercialization may have begun a reversal of previous downward trends in teen marijuana use (Bailey et al., 2020). The study, which followed 230 teens and young adults, found that young people may be more likely to use marijuana

after commercialization, due to normalization as a result of the oversaturation of stores, advertisements, and rapidly rising adult use of the drug.

The commercialization of marijuana has also adversely impacted schools and youth academic performance. According to Joe Zawodny, director of secondary education for the Anchorage School District, "Because it's legal in the community, I think, the stigma around marijuana use is decreasing. The data would seem to say there is increasing use" (Wohlforth, 2018). In Washington state, high schoolers reporting marijuana use also reported lower grades (more C's, D's, and F's) than those of their peers who did not smoke marijuana (Washington State Healthy Youth Survey, 2021).

In Alaska, the number of youths referred for marijuana-related crimes jumped to a high of 302 (Alaska Department of Health and Social Services, 2020). A study also found about 22% of students in grades 9–12 reported that illegal drugs were "offered, sold, or given to them on school property during the previous 12 months" (National Center for Education Statistics, 2021).

Marijuana use among youth in "legal" states also coincides with marijuana misuse and substance use disorder.

A 2019 study (Cerdá et al., 2020) found that recreational marijuana legalization was followed by a 25% increase in adolescent marijuana use disorder.

This trend speaks to the prevalence of high-potency marijuana products. A 2021 Washington state survey revealed that 33% of 12th graders, 36% of 10th graders, and 37% of 8th graders who used marijuana reported that they dabbed it. These numbers are up significantly from 2018 when 13% of 8th and 10th graders and 19% of 12th graders reported dabbing marijuana (Washington State Healthy Youth Survey, 2021). Dabbing involves heating marijuana concentrate, often of unspecified potency that can reach up to 99% THC, and inhaling the vapor. One study on dabbing found that the process may deliver significant amounts of additional toxins, such as methacrolein and benzene (Meehan-Atrash et al., 2017). A 2020 study found that adolescents who dabbed were six times more likely to continue using concentrated forms of marijuana later in life (Medzerian, 2020).

There are intense ramifications to marijuana use by youth. Developing brains are especially susceptible to the negative effects of marijuana use, and young users have demonstrated changes in grey matter volume, indicating negative consequences for brain development (Orr et al., 2019). Young users are also at a greater risk for mental health problems, dependence on marijuana, and future substance misuse (Coffey & Patton, 2016). Chronic adolescent marijuana use has been correlated with cognitive impairment and worsened academic or work performance (Arria et al., 2015; Meier et al., 2015; Salmore & Finn, 2016; Schuster et al., 2018; Silins et al., 2014). Meier et al. found that "the most persistent adolescent-onset cannabis users evidenced an average 8-point IQ decline from childhood to adulthood" (Meier et al., 2012).

A 2022 study found that adolescent users of marijuana lost an average of 5.5 IQ points in adulthood, compared to an average loss of 0.7 points among lifelong non-users (Hill & Hsu, 2022).

Youth marijuana use poses a significant risk for depression and suicide (Gobbi et al., 2019; Silins et al., 2014). In Colorado, where teen suicides have become the cause of one in five adolescent deaths (Daley, 2019), youth suicide toxicology reports have demonstrated this devastating effect. In 2013, marijuana was present in 10.6% of suicide toxicology reports for young people aged 15 to 19 years; in 2017, marijuana was present in over 30% (Colorado Department of Public Health

& Environment, 2023). One study found that marijuana was the most common substance found in post-mortem toxicologies of youth suicide decedents (Choi et al., 2019). Additionally, a 2021 study found that polysubstance use of marijuana, alcohol, and tobacco was associated with depressive symptoms, anxiety, and lower grade point averages (Crane et al., 2021).

The efforts to legalize marijuana are playing out with devastating effects on youth across the country, while public health agencies are ill-equipped to mitigate the consequences. But youth are not the only group at risk.

IMPACT ON YOUNG ADULTS

Though the legal age for marijuana consumption in "legal" states is 21, marijuana use during young adulthood carries a host of adverse effects. Marijuana has a particularly strong impact on developing brains, which continue to develop through a person's late twenties. Unfortunately, marijuana use in this age group is higher than that of any other.

The low perception of risk associated with marijuana use, as well as the highest use rates of all age categories, makes marijuana an unexamined issue for many young adults.

According to the NSDUH (Substance Abuse and Mental Health Services Administration, 2021c, p. 3), in 2021 young adults across the country had the lowest percentages of perception of risk associated with marijuana use. Only 11.6% of young adults believed that smoking marijuana once a month was risky and only 15.2% perceived a great risk from smoking marijuana once or twice a week. This is far lower than the perception of risk of people aged 26 and up: 22.9% perceive great risk from smoking once a month and 27.3% perceive a great risk from smoking once or twice a week.

Young adult marijuana use outpaces other age groups in the United States. Young adults aged 18 to 25 reported lifetime, past-year, and past-month use in higher numbers compared to other age groups at 49.9%, 35.4%, and 24.1%, respectively. Daily or near-daily marijuana use rates of 19- to 30-year-olds reached a new high in 2021. In 2021, more than 42.6% of that group reported marijuana use in the last year; 28.5% reported using in the last 30 days (University of Michigan Institute for Social Research, 2022, p. 56). In 2021, the National Institute on Drug Abuse found that marijuana use reached a historically high rate among college students, with 44% reporting use in 2020 (National Institute on Drug Abuse, 2021).

Higher instances of marijuana use disorder have been reported by people aged 18 to 25, coinciding with higher rates of marijuana use. In 2021, 14.4% of adults aged 18–25 reported marijuana use disorder, up 144% from 2018 (Substance Abuse and Mental Health Services Administration, 2021d, p. 5).

These trends in use are most dramatic in states that have legalized marijuana (Substance Abuse and Mental Health Services Administration, 2019a). The percentage of young adults, aged 18 to 25, reporting past-year and past-month use in 2018/2019 was significantly higher than young adults in legal states. An average of 44.5% of young adults in legal states reported past-year use and 30.5% reported past-month use. In non-legal states, 33.4% of young adults reported past-year use and 21.2% reported past-month use. Legalization has not reduced use; it has encouraged and accelerated it.

Given what we know about marijuana's effects on the developing brain, young adults should be discouraged from using it, but the commercialization of marijuana instead heavily promotes it—without providing any warnings about its risks. The same health risks faced by teen marijuana users affect young adult users. Although initiating marijuana use during the early teen years is thought to be associated with a greater risk of psychosis than if the use begins

in young adulthood (Arseneault et al., 2002), this does not mean continuing use through young adulthood is safe even for those who have not yet exhibited marijuana-induced psychosis, nor that commencing use is safe after age 20. Often, marijuana-induced psychotic symptoms develop in young adulthood, with consolidation of those symptoms into a chronic disorder occurring over a period of 8 or more years (Niemi-Pynttäri et al., 2013). The frequency of use and the potency of the product have been found to be more important than the age at which use began for increasing the odds of a psychotic outcome (Forti et al., 2019). Conversely, the cessation of use is a protective factor (Gonzalez-Pinto et al., 2011; Schoeler et al., 2016).

Co-use also presents a compounded harm to young-adult users. As this age group goes off to college—where drinking, drug use, and other kinds of experimentation are prevalent—marijuana may be used in conjunction with other drugs, presenting a risk for future substance use disorder. Researchers from Oregon State University found that college students who were binge drinkers before the age of 21 saw relatively large increases in marijuana use after legalization (Kerr et al., 2017).

A 2023 study found that college students who used marijuana and alcohol were at a significantly higher risk of serious adverse consequences (M. R. Hatch et al., 2023). A 2021 study in JAMA Pediatrics also found that "Young adults who reported co-use of alcohol and marijuana or met criteria for alcohol use disorder and/or marijuana use disorder accounted for 82.9% of young adults with prescription drug use disorder and 85.1% of those with illicit drug use disorder" (McCabe et al., 2021).

IMPACT ON COMMUNITIES OF COLOR AND LOW-INCOME POPULATIONS

Marijuana legalization poses a significant threat to low-income and minority communities. Though industry proponents suggest that marijuana legalization will alleviate injustices against socioeconomically disadvantaged populations, disparities in use and criminal offense rates have persisted in states that legalized marijuana.

While it is important to evaluate the impact of incarceration within certain communities, it is also important to understand the impact of marijuana legalization on those same communities. It is inappropriate to suggest that only through marijuana legalization will social justice be achieved or criminal justice inequity remedied. In fact, no such effect has been demonstrated in the states where marijuana has been made "legal."

Instead of addressing social justice disparities in one fell swoop, legalization exacerbates these problems in lower income and minority communities. What's more, the marijuana industry has identified them as an important new consumer base.

An early study of medical marijuana implementation in California found that marijuana dispensaries were disproportionately located within areas where the demand for marijuana was higher, where there were higher rates of poverty as well as a greater number of alcohol outlets (Morrison et al., 2014). In other words, when choosing where to locate dispensaries, owners followed the data to low-income communities. Further studies of marijuana dispensaries in Los Angeles found that the majority of dispensaries have opened primarily in African American communities (C. Thomas & Freisthler, 2017). And an overlay of socioeconomic data with the geographic location of pot shops in Denver shows marijuana stores are disproportionately located in disadvantaged neighborhoods (Hamm, 2016). In Oregon, the state conducted an analysis on the distribution of state-sanctioned dispensaries

and found that sites were concentrated among low-income and historically disenfranchised communities (McVey, 2017; P. Smith, 2017). A 2020 study found that racial minorities in California were disproportionately exposed to unlicensed marijuana sellers, which comes at the cost of "potentially exacerbating health disparities by selling unregulated products or selling to minors" (Unger et al., 2020).

Even though dispensaries are often located in low-income communities of color, those communities do not reap the profits.

In fact, fewer than 2% of marijuana business operators are Black (Gibson, 2021). Less than 20% of business owners and founders are minorities (Koski, 2022). In Denver, 74.6% of dispensary licensees are white and only 12.7% are Hispanic (Levine, 2021).

As a result, the harms associated with marijuana dispensary locations (such as increased use and misuse, normalization, hospitalizations, etc.) are disproportionately concentrated within particularly vulnerable communities while profits are raked in outside such communities.

The importance of this cannot be overstated. Historically, disadvantaged communities lack many of the resources needed to combat the industry's targeting and also often lack adequate access to proper drug treatment facilities, thereby exposing community members to an increased likelihood of substance misuse with limited resources to combat the consequences (Kneebone & Allard, 2017). What the country has seen in the fallout of the opioid epidemic and the expansion of Big Tobacco (Truth Initiative, 2018) is being replicated by Big Marijuana.

In 2021, past-year and past-month use among minority young people was higher than the average, as reported by SAMHSA (Substance Abuse and Mental Health Services Administration, 2021b, p. 1). Past-month and past-year marijuana use among youth aged 12 to 17 was more prevalent among African Americans and AIAN youth. For example, nationally, 6.7% of young people aged 12 to 17 reported past-month marijuana use, with 6.8% of Caucasian youth using it in the past month. Comparatively, 7.5% of African American youth and 9.4% of AIAN youth reported past-month marijuana use. Interestingly, past-month use was lower for 12–17-year-olds identifying as Black or African American in both 2019 and 2020 than it was for white 12–17-year-olds. White 12–17-year-olds appear to have reported the highest numbers in past-month usage. Past-year use was 17.3% for Black or African American 12–17-year-olds in 2019, compared to 17.0% for white individuals, but was 11.3% in 2020 as compared to 14.9% for white individuals in the same age group (Substance Abuse and Mental Health Services Administration, 2021b, p. 1).

The decreased perception of risk associated with marijuana use during pregnancy has a particularly damaging impact on socioeconomically disadvantaged communities. A study by the American College of Obstetricians and Gynecologists reported that young, urban women from lower income levels have a 15–28% rate of marijuana use during pregnancy (American College of Obstetricians and Gynecologists, 2017). As previously stated, marijuana use during pregnancy has a host of dangerous consequences for neonates. A 2021 study found that cannabis use or dependence is highest among pregnant women who are 25 years old or younger, low-income, Medicaid-insured, and receiving care at urban teaching hospitals (Gesterling & Bradford, 2022).

From an economic standpoint, advocates of the marijuana industry often argue that any detrimental effects of marijuana will be offset by the cash potential of the drug. Proponents of legalization suggest that the new industry presents previously disenfranchised groups with new economic opportunities. In reality, although some states have attempted to use legislation to protect and provide for minority

marijuana business owners, the industry is largely bereft of diversity. Nationally, fewer than 2% of all marijuana businesses are owned by minorities (Schoenberg, 2018).

Massachusetts serves as a case study for this phenomenon. As of 2021, only 10 of the 280 cannabis business licenses awarded in Massachusetts were awarded to Economic Empowerment or Social Equity applicants (Cotter, 2021). The state requires all "Marijuana Agents," persons who work at marijuana businesses, to register with the state. Demographic analysis revealed that of 1,306 agents who applied in the city of Boston, 6% were Hispanic and 4% African American. This is unrepresentative of the city's population (US Census Bureau, 2019). Indeed, an exposé by the Boston Globe revealed that a handful of out-of-state marijuana corporations had locked-in almost all of the licenses through shell companies (Wallack & Adams, 2019). In 2021, 72.4% of these "Marijuana Agents" identified as white, while only 7.6% identified as Hispanic and 6% identified as Black (T. Smith, 2021).

In Chicago, Illinois, where not one of the 11 existing growers licensed to sell recreational marijuana was African American, the city council's Black Caucus pushed back. Soon after the state legislature legalized recreational marijuana, local African American legislators took issue with the obvious discrepancy (Koziarz, 2019). Still, Chicago Mayor Lori Lightfoot, who received $123,000 from the marijuana industry in her contentious bid for mayor, suggested that those councilmembers take the issue up with the state legislators in Springfield. Legalization was implemented on schedule. In 2022, there was only one minority-owned dispensary in Illinois (Vinicky, 2022).

The late New Jersey State Senator Ron Rice was among the most vocal leaders against marijuana legalization. He wrote in an op-ed, "Seeing firsthand how drugs eviscerate urban communities—and understanding how marijuana legalization will impact the health, education, economics, business, liability, and litigation complexities of our densely-populated, metropolitan-bookended state—I fully oppose it" (Rice, 2019).

Legalization is not a blanket solution to social injustice. In fact, it may perpetuate it.

"Seeing firsthand how drugs eviscerate urban communities—and understanding how marijuana legalization will impact the health, education, economics, business, liability and litigation complexities of our densely-populated, metropolitan-bookended state—I fully oppose it." (Rice, 2019).

IMPACT ON HOMELESSNESS

Though the extent to which a correlation may exist between the increasing homeless population and the legalization of marijuana is unclear, some trends in this area are notable.

A 2022 comprehensive study from Clemson University determined that data "strongly suggest that RCL [recreational cannabis legalization] adoption may cause an increase in aggregate rates of homelessness" (Sanderson, 2022). Statistics from individual state data appear to support this claim. In Colorado, for example, the homelessness rate appears to have increased with the expansion of recreational marijuana. The U.S. Department of Housing and Urban Development reported a 13% increase in Colorado's homeless population from 2015 and 2016, while the national average decreased 3% (Burke & Acuna, 2017). Business owners and officials in Durango, Colorado, have testified that the resort town "suddenly became a haven for recreational pot users, drawing in transients, panhandlers, and a large number of homeless drug addicts" (Kolb, 2017).

Youth homelessness is often negatively impacted by marijuana use. A 2018 study found that daily marijuana use among young men substantially increases the probability of becoming homeless (McVicar et al., 2019).

Additionally, a 2022 study found that the co-use of marijuana and tobacco was common among youth experiencing homelessness, with 85.4% having reported marijuana usage in the past month (Glasser et al., 2022).

A 2018 study, conducted by the Colorado Division of Criminal Justice, surveyed seven Colorado jail populations. It yielded results that further link homelessness and marijuana use (Colorado Division of Criminal Justice, 2018). The study, though small, found that 50.8% of respondents reported using marijuana 30 days prior to their time in jail. Additionally, 54.9% of respondents who were homeless prior to their jail time reported marijuana use 30 days prior to it (compared with 36.1% reporting alcohol use). Of note, "The total number of marijuana arrests decreased by 68% between 2012 and 2019, from 13,225 to 4,290," and "The total number of marijuana-related court case filings declined 55% between 2012 and 2019, driven primarily by decreases in misdemeanors and petty offenses," according to a 2021 press release from the Colorado Division of Criminal Justice (Colorado Division of Criminal Justice, 2021).

The study also found that of the respondents, 38.5% were Colorado natives and 61.5% were not. Of the non-Colorado natives surveyed, 35.1% reported marijuana as his or her reason for moving to Colorado after it was legalized in 2012 (Colorado Division of Criminal Justice, 2018).

Considering the impact of homelessness on communities—and the resources required to help those impacted by it—it is worth further investigating the correlation between homelessness and legalization.

IMPACT ON IMPAIRED DRIVING

Driving while under the influence of marijuana has proven itself to be an increasingly damaging phenomenon due to the legalization and normalization of marijuana in the United States. In 2019, 14.8 million U.S. residents reported driving under the influence of marijuana in the last 30 days, up from 12 million in 2018. (Gross, 2019). This represents 6.5% of the driving population. Marijuana users who drive high are twice as likely to be involved in a crash (Gross, 2019). A 2020 analysis of crash data in legal states found that if marijuana were legalized nationwide, the U.S. would suffer an additional 6,800 excess fatal crashes every year (Kamer et al., 2020).

The COVID-19 pandemic affected nearly every part of life, including driving. Fewer Americans drove during the early months of the pandemic and crashes went down in the first half of 2020 but spiked in the latter half of 2020 (US Department of Transportation, 2022). In Colorado, fatal DUI crashes doubled during the first half of 2020 and alcohol- and marijuana-related crashes were up 32% compared to the first half of 2019 (Grewe, 2020). While data is still forthcoming on the impact of the pandemic on driving in other states, according to the NHTSA, active THC was more prevalent among drivers during the COVID-19 pandemic than alcohol, with 32.7% testing positive for THC and 28.3% testing positive for alcohol (US Department of Transportation, 2020).

In Michigan, a survey found that 51% of medical marijuana users admitted to driving while "a little high," and one in five of those surveyed admitted to driving while very high (Rounds, 2019). A 2022 Virginia survey found that 60% of past 3-month users reported driving while under the influence in the last few months and 26% of past 3-month users reported driving under the influence of marijuana at least once a week (Stratacomm, 2022). 48.8% of teen drivers who currently use marijuana reported driving under the influence (Li et al., 2020).

Legal states are chasing the science on in-field THC testing and hoping science catches up to policy, as opposed to allowing science to dictate policy. The science is clear: driving under

the influence of marijuana is dangerous. The National Institute on Drug Abuse maintains that marijuana use impairs driving in a number of ways: by slowing reaction time, decreasing coordination, and impairing judgment of time and distance. According to a 2021 AAA study, speeding on residential streets when co-using alcohol and marijuana was 55% compared to 35% alcohol-only, and aggressive driving was marked at 52% compared to 28% for alcohol-only (Gross, 2021).

A 2020 double-blind randomized clinical trial to assess the impact of vaped marijuana on driving found that THC impairs driving skills. Drivers who consumed THC had more difficulty maintaining lane position for up to five hours after consuming THC (Arkell et al., 2020). This study confirms previous findings: a 2010 study found THC use affects multitasking (Lenné et al., 2010) and a 2013 study found that smoking increases lane weaving, slows reaction times, and hurts a driver's ability to perform divided-attention tasks (Hartman & Huestis, 2013).

Polysubstance use—using marijuana along with alcohol or another drug—compounds the risk of a vehicle crash more than the drugs being used alone (National Institute on Drug Abuse, 2019b). Drivers under the influence of marijuana and alcohol are more dangerous than drivers who consume marijuana alone or alcohol alone (Hartman & Huestis, 2013). Nevertheless, marijuana-impaired driving is rising while the perception of its negative consequences is decreasing.

The reduced perception of risk and the prevalence of stoned drivers on the road bear consequences for road safety and raise questions for legislators and law enforcement going forward. This false perception that marijuana makes people better drivers is growing, especially among frequent users. A 2022 Virginia survey found that 68% of people who used marijuana in the last 3 months claimed that marijuana actually makes people safer drivers (Stratacomm, 2022).

A survey conducted by AAA found that only 65% of drivers perceived driving within an hour of using marijuana as extremely dangerous or very dangerous, compared with 94% who felt that driving under the influence of alcohol above the legal limit was extremely or very dangerous (AAA Foundation for Traffic Safety, 2022). The answers from younger drivers were even more alarming. Of respondents between the ages of 19 and 24, only 63.1% believed that driving under the influence of marijuana was extremely or very dangerous, but 100% of respondents in that age group said that driving while over the legal limit for alcohol is extremely or very dangerous (AAA Foundation for Traffic Safety, 2022). This disconnect is concerning. The overall downward trend in perception of risk has coincided with an increased percentage of marijuana-impaired drivers on the road.

According to the biological results of Washington's Roadside Survey, "nearly one in five daytime drivers may be under the influence of marijuana, up from less than one in 10 drivers prior to the implementation of marijuana retail sales" (Grondel et al., 2018). A 2021 study found that 29.5% of cannabis users have driven under the influence of marijuana, and daily cannabis users had a 57% predicted probability of driving under the influence (Salas-Wright et al., 2021). The Washington state Healthy Youth Survey found that in 2021, 9% of 12th graders drove after using marijuana and 15% rode with a driver who was using marijuana (Washington State Healthy Youth Survey, 2021). In Alaska, one in 10 high school students had driven after using marijuana (Alaska Department of Health and Social Services, 2020).

In Colorado, DUIDs (driving under the influence of drugs) have risen in recent years and Colorado traffic fatalities where the driver tested positive for marijuana have been consistently rising (with a slight decrease in 2018) despite varying

numbers of traffic fatalities annually (Rosenthal & Reed, 2022). Now, 1 in 4 road deaths in Colorado involve marijuana (Colorado Division of Criminal Justice, 2020). Out of Colorado drivers who were tested for drugs and alcohol in 2019, 47% of drivers tested positive for THC; 19% tested positive for alcohol and THC; and 6% tested positive for alcohol, THC, and a third substance (Rosenthal & Reed, 2022). Additionally, there are more intoxicated drivers who test positive for THC and alcohol together than those who test positive for alcohol alone (Rosenthal & Reed, 2022). In fact, 40% of Colorado drivers who are convicted for a DUI test positive for alcohol, THC, and at least one other substance (Rosenthal & Reed, 2022).

In a 2022 Colorado report of DUID data, of all case filings where a cannabinoid screen was conducted after a driver was pulled over for demonstrating impaired driving, marijuana was detected in 2,848 of the cases, about 90% of drivers who were tested. Of these positive screens, 82.9% tested positive for 1.0 to 5.0+ active THC (Rosenthal & Reed, 2022). What's more, 49.2% of those who tested positive for THC tested positive for extremely high levels of the drug, with a THC level of 5.0 or higher.

In Colorado, traffic fatalities have increased over 51% since 2013 (Colorado Department of Transportation, 2023). The rise in statewide traffic fatalities has coincided with a rise in instances of traffic fatalities where the driver tested positive for THC. The number of traffic fatalities involving drivers who tested positive for marijuana in Colorado rose from 55 deaths in 2013 to 115 deaths in 2018. In 2018, 18.2% of all traffic fatalities in Colorado involved a driver who tested positive for marijuana (Rocky Mountain High Intensity Drug Trafficking Area, 2021).

A recent report released by AAA found that the number of drivers who tested positive for marijuana after a fatal crash doubled after legalization in Washington state. Researchers found that in the five years prior to legalization in the state, marijuana-impaired drivers comprised around 8.8% of all drivers implicated in traffic fatalities. In the years following, the rate jumped to around 18% (Stratton, 2020). AAA writes, "AAA opposes the legalization of marijuana for recreational use because of its inherent traffic safety risks and because of the difficulties in writing legislation that protects the public and treats drivers fairly" (Stratton, 2020). AAA also reported that "drug use among nighttime weekend drivers has risen by 25 percent since the previous survey in 2007, and driver use of cannabis has spiked by 46% in that same period of time" (AAA Exchange, 2022).

After Canada legalized marijuana, trauma centers in British Columbia reported double the number of moderately injured drivers who tested with a THC level of at least 2 ng per milliliter (Brubacher et al., 2022). Research by the Highway Loss Data Institute found that the legalization of recreational marijuana in Colorado, Oregon, and Washington coincided with an increase in collision claims (Highway Loss Data Institute, 2018).

Compounding the risk of an increasingly impaired driving population is the difficulty posed to law enforcement officers who attempt to stop and detain marijuana-impaired drivers. The smell of marijuana in a suspected driver's car is no longer enough to make an arrest in many states, including in states that have not legalized marijuana (Romo, 2019). Technology that can accurately determine THC levels is under-developed and lacks the certainty of traditional breathalyzers. The quick metabolization of THC renders it difficult to detect, requiring tests to be administered quickly in suspected cases.

Additionally, many states have struggled to create a standard level of impairment when THC is detected (Queally & Parvini, 2018). Studies are mixed on what level of THC constitutes impairment. Recently, scientists found that drivers may still be impaired from marijuana use well after intoxication, demonstrating an

increased likelihood of poor driving performance, increased accidents, and decreased rule-following (Dahlgren et al., 2020). In response, 13 states, including Michigan, Arizona, and Pennsylvania, implemented a zero-tolerance policy regarding driving under the influence of any detectable amount of THC (Governors Highway Safety Association, 2021).

Many of the "legal" states failed to establish laws and guidance prior to legalizing marijuana, leaving law enforcement officers in the dark as legislators played catch-up to dangerous trends. As a result, road safety has been compromised.

TRENDS IN CRIME SINCE LEGALIZATION

Marijuana legalization advocates have argued that legalization will reduce overall crime. However, in "legal" states, marijuana crime rates have risen at a faster rate than other states across the country.

While it is difficult to say whether crime can be causally associated with marijuana legalization, some studies shed light on a correlation. A 2019 study conducted in Denver found that the prevalence of both recreational and medical marijuana dispensaries in Denver neighborhoods is significantly and positively associated with increased crime (Hughes et al., 2019). A 2021 study linked recreational marijuana legalization in Oregon to increased property crime and violent crime, although further research is needed (Wu et al., 2021). A 2022 study in Oregon "found that counties in [Oregon] have experienced increases in simple assault rate following legalization, relative to rates in the 19 non-legalized states" (Wu & Willits, 2022).

Researchers found that Denver neighborhoods adjacent to marijuana businesses saw 84.8 more property crimes each year than those without a marijuana shop nearby (Freisthler et al., 2017). The number of court filings charged with the Colorado Organized Crime Control Act that were linked to a marijuana charge increased 643% from 2013 to 2017 (Colorado Department of Public Safety, 2021). Further, crimes against society, such as drug violations, have increased 44% since 2014 (Denver Police Department).

Colorado's crime rate in 2016 increased 11 times faster than the 30 largest cities in the nation since legalization (Mitchell, 2017). In 2018, data from the Colorado Bureau of Investigation demonstrated a 14.2% increase in property crime since 2013—157,360 to 179,650—and a 36.5% increase in violent crime since 2013—18,475 to 25,212 (Rocky Mountain High Intensity Drug Trafficking Area, 2019a, p. 52).

Though arrests for marijuana offenses had declined in the years prior to legalization in Colorado, they are increasing again. In 2013, arrests for marijuana sales offenses were at a low of 337, having decreased 52.1% since 2008. From 2013 to 2018, arrests for marijuana sales offenses increased 29.4%. Additionally, prior to legalization, from 2008 to 2013, arrests for all drug sales offenses declined 54.9%. In the years following legalization, arrests for drug sales offenses have increased 11% (Federal Bureau of Investigation, 2018).

Overall, while increased crime has not been definitively linked to marijuana legalization, these upward trends in property crime and violent crime—as well as crimes against society—warrant further investigation.

A THRIVING UNDERGROUND MARKET

Commercialization advocates have long argued that legalization will reduce black market marijuana activity in "legal" states. They claim legalization will prevent the exporting of marijuana to non-legal states, serve as a money-maker for state budgets, bolster consumer safety, drive out Drug Trafficking Organizations

(DTOs), and free up law enforcement time. However, the legalization and commercialization of marijuana have led to greater black-market activity than ever before. States do not see a surplus in funds, consumer and environmental protections prove meaningless, DTOs are operating in legal states and not trying to hide it, but because of legalization, now law enforcement officers have fewer tools to combat illegal activity.

The unchecked proliferation of the marijuana industry has abetted some of these significant problems. The market saturation and overproduction permitted and written into law by "legal" states have caused tremendous problems for regulators and law enforcement.

All legal states have failed to curtail the illicit market, but no state has fared as poorly as California. A bombshell Los Angeles Times series published in September 2022 found the illegal marijuana market in California is much worse than the government wants to acknowledge. The LA Times calculated that the illegal grows outnumber legal grows by as much as 10:1 (Twitter et al., 2022) but not all counties are equally equipped to deal with the illicit market. The 56% of CA counties that have opted-out of marijuana sales are prohibited from using state government funds to combat illegal grows and instead rely on federal funds. This misguided policy, in combination with the lowering of criminal penalties for illegal grows, has lowered the cost of business for illicit actors and emboldened their actions.

Not only do these illegal grows rely on trafficked workers for labor, they also ignore environmental regulations, including pesticide limits and water restrictions in the midst of California's most severe water shortage in recent memory (St. John, 2022). These illegal grows set up shop on federal land or commandeer private land and engage in coercion and acts of violence; many landowners have given up (LaMalfa, 2022; St. John, 2022).

A report from NBC found that 70–80% of marijuana sold in state-legal dispensaries in California was produced and grown illegally (NBC News, 2022). The illegal supply is also of course being diverted to other states. Even California Governor Gavin Newsom in 2016 admitted that 85–90% of California-produced marijuana was exported (Fuller, 2019). Instead of solving that issue, now the Governor is conceding and in September 2022 signed legislation to permit the exporting of California marijuana to other legal states, a clear violation of constitutional interstate commerce powers (Office of Governor Gavin Newsom, 2022).

Illegal marijuana originating from "legal" states is uncovered at increasingly high rates. In its 2019 National Drug Threat Assessment report, the DEA (Drug Enforcement Administration, 2019) found that states with the highest marijuana removals came from states with major border crossings or states with medical or recreational marijuana markets. These states give cover to illegal activity; black-market problems abound.

Illicit activity has proliferated with marijuana legalization, much of it tied to "state-legal" marijuana. Many pro-marijuana figures have suggested the black market causes problems because other states have not legalized marijuana. This is not true. The unfettered black market will always be able to undercut the "legal" market. Despite their widespread legality, cigarettes are still one of the most trafficked commodities (Kilmer, B., et al., 2010; USA Today (Mar. 17, 2014; Zinsmeister, J., 2015; Center for Public Integrity, 2009).

It is well documented that Oregon's supply of marijuana far outweighs the demand for the drug in the state's legal market. Between July 2015 and January 2018, 14,550 pounds of illegally trafficked Oregon marijuana, worth approximately $48 million, was seized en route

to 37 different states (Oregon-Idaho High Intensity Drug Trafficking Area, 2018). According to a report from the Oregon Liquor Control Commission, the supply of marijuana is twice the level of demand. Oregon's overproduction issue is so vast, the state has enough marijuana to meet the current demand for at least six years (Oregon Liquor Control Commission, 2019). A 2019 audit by Oregon's Secretary of State found that the volume of marijuana produced in Oregon is nearly 7 times its local consumption (Oregon Secretary of State, 2019). A 2021 report found that this trend of supply outweighing demand continued, even after Oregon saw a jump in demand amid the COVID-19 pandemic (Oregon Liquor Control Commission, 2021).

Adding to this issue, the same 2019 Oregon audit found that black market marijuana fetches prices several times higher than "legal" marijuana. As the U.S. Attorney in Oregon reported in 2018, the state has "an identifiable and formidable marijuana overproduction and diversion problem" (Flaccus, 2018). Still, marijuana proponents in numerous states seek faster license approvals and more marijuana licenses (Alfosni, 2019). The 2021 Recreational Marijuana Supply and Demand Report found that since Oregon released its last report in 2019, production has increased by 78% and cannabis sold has increased by 150% (Oregon Liquor Control Commission, 2021).

In 2018, Colorado law enforcement seized 12,150 pounds (6.1 tons) of bulk marijuana and officials recorded 25 different states to which marijuana was destined (Rocky Mountain High Intensity Drug Trafficking Area, 2019b). In addition to physically moving marijuana out of state in vehicles, much of it is sent via the U.S. Postal Service. In FY15, USPS apprehended approximately 34,000 pounds of marijuana, but in FY19, USPS apprehended 93,651 pounds of marijuana, a 175% increase in 5 years (Office of Inspector General, 2016).

The proliferation of high-potency THC extracts has made smuggling logistically easier. The Oregon-Idaho HIDTA seized 91 clandestine labs in 2021; 90 of the labs were producing BHO/honey oil, a marijuana extract (Oregon-Idaho High Intensity Drug Trafficking Area, 2022a).

Despite the dropping seizures of marijuana at the southern border, the supply of illicit marijuana has not decreased; on the contrary, it has boomed. The Oregon-Idaho HIDTA alone seized 875% more marijuana in FY22 in their region than was seized at the U.S. southern border during the same time period (Oregon-Idaho High Intensity Drug Trafficking Area, 2022b). In 2020, the Central Valley California HIDTA, one of the 4 HIDTA regions in California, seized 662,063 kilograms of illicit marijuana (Central Valley California High-Intensity Drug Trafficking Area, 2021). In 2020, Colorado law enforcement seized 5,028 kilograms (5 metric tons) of bulk marijuana. Officials recorded 21 different states to which marijuana was destined (Rocky Mountain High Intensity Drug Trafficking Area, 2021).

"Legal" states also have a proliferation of illegally produced marijuana, even in their state-licensed dispensaries. In "legal" states, illegal grow operations have easily blended their production facilities with "legal" ones and have taken advantage of rural cover to hide from law enforcement. In Washington, Okanogan County Chief Criminal Deputy Steve Brown told NPR reporters that prior to legalization, operations of the kind he continues to uncover were "hidden up in the hills." Now, he finds some just off roads and within sight of neighbors. Other investigations have uncovered illegal operations run by people who were licensed in other "legal" states (Kaste, 2018).

In California, according to recent reports, the black market outsells the "legal" marijuana market at a rate of three to one. These illicit sellers have brazenly opened shops in cities across the state, hiding in plain sight and giving

way to a perpetual game of "whack-a-mole," as one law enforcement officer described it. These companies also advertise on the popular marijuana website, Weedmaps, blending in with "legal" sellers. When the state warned Weedmaps to stop permitting illegal operators to advertise, CEO Chris Beals complained that the problem was not his company's fault but rather a result of the state prohibiting more retail marijuana licenses (Romero, 2019).

Local illicit actors are not the only beneficiaries of "legal" marijuana. The proliferation of black-market marijuana bolsters the businesses of well-financed international cartels, which extend as far north as Alaska (Alaska State Troopers, 2016). The DEA found that Asian drug trafficking organizations (DTOs) were operating grow facilities across the state of Washington (Drug Enforcement Administration, 2020).

Cartel presence in California has only expanded since legalization. In California, authorities suspect—based on phone records and wire transfer activity, as well as figurines commonly associated with cartels, such as those depicting Jesus Malverde—that illegal marijuana activity is tied to the Sinaloa and La Familia Michoacana cartels (Magdaleno, 2018). In 2021, the Oregon-Idaho High Intensity Drug Trafficking task force identified 136 DTOs with foreign and domestic connections (Oregon-Idaho High Intensity Drug Trafficking Area, 2022a).

A 2022 report found the Sinaloa Cartel, previously led by the Mexican drug trafficker Joaquín "El Chapo" Guzmán who is now serving a life sentence in U.S. federal prison, was lobbying in favor of marijuana legalization in Mexico, presumably because cartels could find a "legal" way to get into the drug business and launder money from other drugs as well (Chaparro, 2022).

The legality of marijuana in some states continues to boost the underground market. Additionally, the United Nations' 2021 World Drug Report found that "cannabis potency has quadrupled in some parts of the world over the last two decades, while the percentage of adolescents who perceived the drug as harmful fell by as much as 40 per cent"—this has led to a 22% increase in worldwide drug use since 2010, which drug trafficking organizations have been working to supply (UN Office on Drugs and Crime, 2021).

The corruption permeates the state-legal market. The DEA reports that financial backing for some state-legal marijuana businesses flows from illicit revenue and DTOs that illegally shelter profits from marijuana businesses and undercut tax revenues anticipated by state governments (Drug Enforcement Administration, 2020).

The Drug Enforcement Administration concluded in their 2020 National Drug Threat Assessment: "Domestic production and trafficking of marijuana will likely increase as more states adopt or change current marijuana laws to establish medical or recreational marijuana markets, allowing criminals to exploit state legality" (Drug Enforcement Administration, 2020).

TAX REVENUE FROM LEGALIZATION

Regulated marijuana has not been the revenue cash cow that industry advocates promised. Despite having some of the highest marijuana taxes in the country, California has still not seen a boom in tax revenue. California's projected marijuana tax revenue by July 2019 was nearly half of what was originally expected when the state permitted retail sales in 2018 (Blood, 2019; Fuller, 2019). The FY21-22 marijuana tax revenue was only 0.49% of the state's entire budget (California Department of Tax and Fee Administration, 2022).

In Alaska, marijuana tax revenue represented 0.29% of the state budget, in Oregon 0.30%, and in Colorado, it represented nine tenths of one percent of Colorado's 2022 statewide budget

(Smart Approaches to Marijuana, 2022). While marijuana's supporters may point to the fact that Colorado received $332 million (projected) in tax revenue in 2022 (Colorado Department of Revenue, 2022), a study from Colorado Christian University found that every $1 in tax revenue resulted in approximately $4.50 in costs, ranging from additional healthcare costs to more students dropping out of high school (Centennial Institute, 2018).

In 2022, California cut several marijuana-related taxes in hopes of saving "failing" marijuana businesses (Yee, 2022). In reality, many state-legal growers had already given up on the bureaucracy and had begun illegally (El Mahrer et al., 2022). Marijuana license holders complain that "legal" states are excessively regulated and that taxes on the drug are too high (Alfosni, 2019). They go as far as to say that regulation and taxes are the reason the black market continues to dominate. As we have seen in California, that contention is ill-founded for several reasons. The regulatory and compliance systems instituted in the "legal" states were instituted with little foresight. State compliance officials are left on their heels while various regulatory and compliance issues become exposed. The Oregon Liquor Control Commission wrote in a 2018 report that, "due to the legally required rapid implementation of the recreational program, OLCC has not been able to implement robust compliance monitoring and enforcement controls and processes for the recreational marijuana program" (Oregon Liquor Control Commission, 2018).

LOCALITIES OPT-OUT OF RETAIL MARIJUANA

Although marijuana legalization has been passed by ballot measures in several states, the picture at the local level is very different. The perception that legalization is welcomed by the citizens of marijuana-friendly states is not accurate.

Proposition 64, the marijuana ballot measure in California, received just over 57% of the vote when it appeared on the ballot in 2016. Yet 68% of California localities have opted out of allowing marijuana shops to open (Nieves, 2021). This means the "legal" shops will be concentrated in a handful of towns and communities. While California has 2.1 dispensaries for every 100,000 residents, Alaska has a rate of 20.3 dispensaries for every 100,000 residents, Oregon has a rate of 17.9, and Colorado has a rate of 14.2, as of October 2021 (Nieves, 2021).

What's more, licensed operators have expressed frustration with the restrictive policies of the localities, prompting one legislator to craft a law that would require towns that opted out to permit at least one marijuana business for every four bars or restaurants. According to a Los Angeles Times report, that would result in nearly 2,200 new marijuana shops across the state (McGreevy, 2019a). The legislation runs counter to what the citizenry was promised in the ballot initiative.

The shocking discrepancy has been replicated across the country. When it comes to marijuana-related ballot measures, voters may think the issue is very important. The picture changes when legalization hits home. Voters choose to opt-out of marijuana in their communities in large numbers. This raises questions about the political process of legalization.

In Michigan, where recreational marijuana sales began in December 2019, more than 1,400 of the state's 1,773 municipalities opted out of recreational marijuana—with 40 of 83 counties reporting none of their municipalities allowing the sale of medical marijuana (WXYZ Detroit, 2019). That amounts to approximately 79% of the state's municipalities opting out of marijuana.

In Colorado, another state thought to be marijuana-friendly, 64% of jurisdictions banned

both recreational and medical marijuana sales (Colorado Marijuana Enforcement Division). As a result, nearly 59% of licensed medical and recreational marijuana locations are concentrated in four counties: Denver (345), El Paso (125), Boulder (68), and Pueblo (58) (Colorado Department of Revenue, 2019).

In New York, 58% of municipalities have opted out of consumption sites (Rockefeller Institute of Government, 2022).

Over 60% of municipalities and counties in Oregon have opted out of marijuana sales. Although some of these jurisdictions voted after shops set up in their cities, no new marijuana retail stores are permitted. As such, 50% of Oregon dispensaries are concentrated in three counties, with 196 of the total 666 dispensaries located in the county of Multnomah (Oregon Liquor and Cannabis Commission, 2023).

In Illinois, similar debates are raging, with more community mobilization than many legislators and community organizers have ever seen, according to a report by the Chicago Tribune (McCoppin et al., 2019). The wave of anti-marijuana sentiment surprised some, since the measure passed fairly easily in the state legislature. That being said, an investigative report by Illinois-based newspapers found that—from January of 2017 to the spring of 2019—marijuana companies, executives, and lobbyists donated over $630,000 to various politicians in the state (Grace, 2019).

While it may pay to gain the favor of legislators, localities are far less certain about "legal" marijuana taking over their hometowns.

"LEGAL" PRODUCTS ARE UNSAFE

The lack of oversight also bears consequences for consumer safety. An independent investigation in San Diego found that nearly 30% of marijuana samples purchased from licensed retailers in Southern California tested positive in labs for pesticides (Grover & Corral, 2019). A 2021 study also found that medical marijuana is "prone to contamination of metals, fungi, and pesticides during manufacturing and storage processes" (Dryburgh et al., 2018). States are ill-equipped to handle marijuana testing, and even states with the most stringent regulatory requirements have demonstrated significant lapses, which has allowed contaminated marijuana products to reach the market (Crombie, 2017). Licensed marijuana retailers are not incentivized to comply with the law and they benefit from that leeway while continuing to point fingers at the black market when problems arise. As a result, the states themselves are blurring the lines between "legal" and illegal marijuana, by allowing "legal" operators to skirt regulation.

In "legal" states, illegal grow operations have easily blended their production facilities with "legal" ones and have taken advantage of rural cover to hide from law enforcement. Additionally, illicit actors have taken advantage of federal hemp legalization. Because hemp and marijuana are only distinguishable through laboratory testing, these illicit actors shield their illegal marijuana grows in legal hemp fields. (Drug Enforcement Administration, 2020). Even legal hemp fields are not exempt from issues. The New York Times reported that sellers are now offering Delta 8 THC, which is derived from hemp, to circumvent a law that prohibits Delta 9, the psychoactive ingredient in marijuana, from being sold (Richtel, 2021).

In a 60 Minutes story on marijuana in California, Sheriff Tom Allman took reporter Sharyn Alfonsi in a helicopter to survey an illegal grow site in the "Emerald Triangle"—an area of California known for its illicit production of marijuana. He was not surprised that the operation wasn't hidden. "Allman explained since Prop 64 and the legalization of marijuana, the black-market suppliers try to blend in with legal pot farmers sometimes on the same property" (Alfosni,

2019). In response, the three counties within the "Emerald Triangle" were given $1.5 million to address the increasing rates of illegal marijuana growth and crime (Barringer, 2022).

Another major promise of marijuana proponents was that a "legal" market would eliminate black market weed and allow law enforcement officials to focus on other things. Allman laughed at the idea and told Alfonsi that he was "looking forward to that day" (Alfosni, 2019). The very creation of the "legal" marijuana market in California has ushered in a more powerful illicit market than had ever existed before. What's more, Allman believes that his department lacks resources to combat the illegal operations. He estimates that it only has the capacity to handle 10% of the illegal grows. According to a 2019 industry report, $8.7 billion of the revenues made from marijuana sales in California's massive cannabis market are illegal, compared to $3.1 billion in legal revenues (McGreevy, 2019b).

ENVIRONMENTAL IMPACT

Conversations regarding the legalization of marijuana have largely ignored the threat that the industry poses to the environment. Given the lack of data, it is difficult to predict the full extent of marijuana's impact. However, early indications point to damaging consequences. Research suggests that indoor marijuana grows emit as much CO2 as 3.3 million cars on the road (Larkin & Sweeney, 2022). A 2021 report from the American Chemical Society identified six impact pathways from cannabis cultivation: land-cover change, water use, pesticide use, energy use, air pollution, and water pollution (Wartenberg et al., 2021).

The environment is at risk of pollution from both "legal" and illegal marijuana operations. Regulatory standards are lacking and enforcement is low. The lack of clarity in regulation has blurred the line between "legal" and illegal marijuana cultivation practices. Furthermore, limited resources have prevented law enforcement officials from investigating illegal grow sites—which are often well disguised on state and federally protected land. In 2017 alone, for example, 80,826 plants were seized from Colorado public lands, compared to 4,980 in 2013 (CBS News, 2019).

Surrounding communities and ecosystems are at stake. Marijuana facilities on federal land in California are estimated to contain up to 731,000 pounds of solid fertilizer, 491,000 ounces of liquid fertilizer, and 200,000 pounds of toxic pesticides (Bernstein, 2017). These chemicals threaten the surrounding environment and have devastated local animal species. An illegal rodent poison has been associated with a rise in instances of death of the northern spotted owl, a threatened species native to the northwest (Franklin et al., 2018).

In California, officials estimate that 70% of the illegal market is cultivated on public lands. According to one investigative report, nine out of every 10 illegal marijuana farms raided in 2018 contained traces of carbofuran, an extremely toxic and banned chemical. From 2012 to 2017, six times as many chemicals have been found at these operations. "These places are toxic garbage dumps. Food containers attract wildlife, and the chemicals kill the animals long after the sites are abandoned," said Rich McIntyre, director of the Cannabis Removal on Public Lands (CROP) Project, which is dedicated to restoring lands devastated by criminal grow sites on state and federal property in California (Weber, 2019). "We think there's a public health time bomb ticking," he said, because 60% of California's water comes from national forest land. The reclamation of such illegal grow sites costs an average of $40,000 per site (Weber, 2019).

As marijuana legalization expands, so too does the illicit market and the threat it poses to the environment. But illegal marijuana is not the only culprit. Marijuana cultivation uses and requires a significant amount of power.

Indoor marijuana cultivation (which makes up 80% of all growing) is highly inefficient. In fact, indoor marijuana cultivation consumes 709 kBtu/sq ft. A normal home or office building consumes just 40-50 kBtu/sq ft (Price, 2020). The indoor cultivation of one kilogram of marijuana requires 5.2 megawatt hours of electricity and releases 4.5 metric tons of carbon dioxide emissions, comparable to that of a passenger car in one year (Reitz, 2015; US Environmental Protection Agency, 2023). Indoor cultivation in Massachusetts makes up 10% of the state's industrial electricity consumption (Young, 2021). Marijuana cultivation is so energy intensive that its emissions are similar to levels caused by coal mining in Colorado (Summers & Quinn, 2021).

Marijuana production is nearly four times more energy intensive than coal or oil production (Mills, 2012). The Alliance to Save Energy found, "Indoor cannabis cultivation is one of the most energy-intensive industries, spending an estimated $6 billion on energy annually. That's a hefty electricity bill, matching that of the federal government powering its facilities" (Reott, 2020). And energy consumption issues will only worsen. Research estimates that annual marijuana cultivation electricity demand will increase by 65% over the next ten years (T. Miller & Bischof, 2020).

A 2015 study on the impact of marijuana cultivation on watersheds in California found that individual marijuana plants require 22.7 liters of water daily. Production facilities range in daily water demand from 523,144 liters to 724,016 liters (Bauer et al., 2015). A 2021 article from the Brookings Institution also found, "The scale of the problem is staggering: Even at the end of 2020, illegal cannabis grows sucked up between 11.4 million and 36.3 million liters of water daily! The widespread illegal cultivation contributes to water depletion and conflict over water and has other bad environmental consequences" (Felbab-Brown, 2021). Researchers expect the total amount of water used by the legal cannabis market to increase by 86% by 2025 (Felbab-Brown, 2021).

Additional studies have highlighted the need for a better understanding of the consequences of marijuana cultivation. A 2016 study focused on marijuana production in Humboldt County, California, found that 68% of the grow sites were less than 500 meters from developed roads, introducing a risk of landscape fragmentation; that 22% of grows were on steep slopes, posing a risk for erosion, sedimentation, and landslide; and that 5% were less than 100 meters from threatened fish habitats (Butsic & Brenner, 2016). A subsequent study found that marijuana farming has drastic impacts on its surrounding environment, an important observation as the industry seeks to expand (I. J. Wang et al., 2017).

From 2012–2016, the number of marijuana farms in Northern California increased 58% and the total area under cultivation expanded 91%. Expansion of these farms occurred in locations of extreme environmental sensitivity. However, budgetary accommodations for regulating marijuana farm expansion were relatively low compared with other regulatory programs (Butsic et al., 2018). Additionally, a study from the University of California, Berkeley, found that "While California only has 8,000 permitted cannabis farms, scientists mapped 15,000 in Humboldt County alone" (Dillis et al., 2021).

Legalization has thus far resulted in extreme environmental damage, and the consequences may not be fully understood in time to prevent worse outcomes, as the industry further expands.

INCREASED DANGER TO PETS

More pets are inadvertently eating marijuana and marijuana-infused products, stemming from the products being improperly stored in households. Dogs have more cannabinoid receptors in their brains than humans, which

means marijuana side effects are much more pronounced in canines (Gollakner & Buzhardt, 2022).

Pets are likely unable to differentiate edibles from regular food or treats so accidental ingestion is a concerning risk. The ASPCA's Animal Poison Control Center reported the number of these cases increased from 330 in 2012 to 5,811 in 2021, representing a 1,660% increase (N. Martin, personal communication, October 18, 2022). In 2021, the Pet Poison Hotline reported a 450% increase in accidental marijuana ingestion (Nationwide, 2023). According to the ASPCA, "Signs pets commonly show after ingesting marijuana or marijuana products include unsteadiness on the feet, depression, dilated eyes, dribbling urine, sensitivity to sound and touch, slow heart rate and even low body temperature" (ASPCA, 2018).

A Colorado study found that the consumption of "medical grade tetrahydrocannabinol butter" resulted in the death of two dogs (Meola et al., 2012). In 2019, the American Veterinary Medical Association warned, "Even if you don't bring marijuana into your house, legalization could increase the chances of your dog coming upon a discarded joint or edible while outdoors" (American Veterinary Medical Association, 2019). This trend is likely to worsen as more states legalize marijuana and more individuals begin using marijuana more frequently.

The industry has also heavily marketed unproven, unregulated marijuana products to pet owners, claiming it can help calm anxious pets and help relieve pain. Some claim CBD can even cure dog cancer (Coile, 2021). Studies on THC or CBD use in pets are limited; even if THC is legal in a state, it is only legal for adult human consumption, not legal for pet consumption. One of the few things that is known about CBD consumption in dogs is that it can inhibit the effectiveness of medication (Coile, 2021).

CANADA

Canada was one of the first countries to legalize recreational marijuana, legalizing its possession and use in 2018. Early data are indicative of problematic trends.

Canadian use rates have increased. Among those 16 or older, past-year use increased from 22% in 2018, the year Canada legalized marijuana, to 27% in 2022 (Health Canada, 2022b). Furthermore, past-month use increased from 15% in 2018 to 19% in 2022, indicating that these same users are using the drug more frequently. Among 16–19-year-olds, past-month use increased from 23% in 2018 to 25%; among 20–24-year-olds, it increased from 30% to 36%. Daily use among those 16 or older has remained largely unchanged, going from 25% of past-year users in 2018 to 26% in 2021 and back to 25% in 2022.

Marijuana use among youth in Canada is high. Past-year use among people aged 16 to 19 increased more than 22% from 2018, when marijuana was legalized, to 2019 (Health Canada, 2019). In 2019, 16% of Canadians aged 16 to 19 reported using marijuana almost every day, or every day (Health Canada, 2019). According to Canada's youth drug survey, 18% of young people in middle school and high school reported past-year marijuana use (Health Canada, 2022a). Over 19% of young people in grades 7–9 and nearly 30% of young people in grades 10–12 reported dabbing marijuana when they used it (Health Canada, 2022a). 17% of young people in grades 7–12 reported using both alcohol and marijuana (Health Canada, 2022a).

Marijuana-impaired driving is on the rise. A 2022 study found that after legalization, the rate of drivers who tested positive for THC in British Columbia doubled (Brubacher et al., 2022). Additionally, 7% of drivers in Canada reported driving after using marijuana in 2019, a jump of over 112% just one year after legalization (Woods-Fry et al., 2019). And 20% of those who

reported driving while high reported co-using marijuana with alcohol (Health Canada, 2019).

The black market continues to dominate in Canada. Reports suggest that the legal market comprises just a third of the market for marijuana in Canada (Miller, 2020), and 40% of users in Canada reported that they had obtained marijuana illegally since it was legalized (Turvill, 2020). An investigation by Radio-Canada found connections to organized crime in the Canadian legal marijuana market (Denis, 2018).

After Canada expanded the sales of THC products, emergency department visits and hospitalizations of children exposed to marijuana increased nine-fold (Neustaeter & Favare, 2022).

RECOMMENDATIONS

Policy makers and the public need real-time data on both the consequences of legalization and related monetary costs. Meanwhile, we should pause future legalization efforts and implement public health measures such as potency caps in places that have legalized. In addition, the industry's influence on policy should be significantly curtailed. SAM recommends research efforts and data collection focus on the following categories:

1. Emergency room and hospital admissions related to marijuana.
2. Marijuana potency and price trends in the "legal" and illegal markets.
3. School incidents related to marijuana, including studies involving representative datasets.
4. Extent of marijuana advertising toward youth and its impact.
5. Marijuana-related car crashes, including THC levels even when testing positive for alcohol.
6. Mental health effects of marijuana.
7. Admissions to treatment and counseling intervention programs.
8. Cost of implementing legalization from law enforcement to regulators.
9. Cost of mental health and addiction treatment related to increased marijuana use.
10. Cost of needing, but not receiving, treatment.
11. Effect on the market for alcohol and other drugs.
12. Cost to workplace and employers, including impact on employee productivity.
13. Effect on minority communities, including arrests, placement of marijuana establishments, and quality of life indicators.
14. Effect on the environment, including water and power usage.

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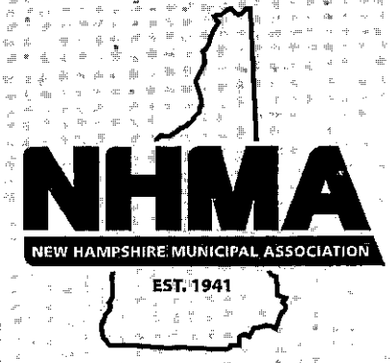
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The Cannabis Report:

AMERICA'S PERCEPTION ON CONSUMPTION & ROAD RISK

Mothers Against Drunk Driving®

Survey Conducted February 2020
Released September 2020

madd®
NO MORE VICTIMS®



AMANDA HILL

MADD DEDICATES THIS REPORT TO AMANDA, DENISE AND ED, THE ENTIRE HILL FAMILY, AND TO ALL THE VICTIMS OF THE 100 PERCENT PREVENTABLE CRIMES OF DRUNK AND DRUG-IMPAIRED DRIVING.

In June 2018, Amanda Hill was hit head on by a driver high on marijuana. She was 24 years old. Amanda loved life and was very kind and compassionate.

Amanda was a talented veterinary technician and loved working with exotic animals. She had a bright future ahead of her, having recently completed an internship at the Denver Zoo. At home, she had her own little zoo consisting of a chinchilla, hedgehog, parrot, bunny, sugar gliders and cats.

Amanda's mother, Denise, shared these thoughts. "Our family understands all too well the impact of drug-impaired driving. Our beautiful daughter lost her life due to the injuries she sustained in that horrific crash. That one decision to drive impaired changed many lives that fateful day. She was a cherished daughter and loved sister, and has many friends and family that mourn her loss."

After working with MADD, Denise and Amanda's father, Ed, have become powerful advocates for stricter laws surrounding marijuana use while operating a vehicle and participated in MADD Colorado's drugged driving prevention campaigns in 2019 and 2020. We will be forever grateful to Denise, Ed, and the Hill family for dedicating their lives to saving others in memory of Amanda.

IF YOU OR A LOVED ONE HAS BEEN AFFECTED BY DRUNK OR DRUG-IMPAIRED DRIVING, MADD IS HERE TO HELP.
VICTIM/SURVIVOR 24-HOUR HELP LINE 877-MADD-HELP (877-623-3435)

The evidence is mounting that drivers are increasingly impaired by drugs other than alcohol, including marijuana. We have so much more work to do.

A lot has changed in the 40 years since MADD's founding. MADD succeeded in our push for every state to enact a .08 BAC limit, passed laws requiring ignition interlocks for all drunk driving offenders in 34 states, and D.C., and educated over 1.1 million youth and parents about the dangers of underage drinking. Tragically, a lot has not changed. Each year, more than 10,000 people are killed and 300,000 are injured in drunk driving crashes. And the evidence is mounting that drivers are increasingly impaired by drugs other than alcohol, including marijuana. We have so much more work to do.

In 2015, MADD expanded our mission to include fighting drug-impaired driving, reflecting our commitment and long history of serving victims of both drunk and drugged driving. MADD created a Drugged Driving Task Force with key law enforcement, traffic safety, and research experts to study the potential effects of marijuana legalization, the national opioid crisis, and the prevalence of prescription drugs could have on impaired driving. The task force learned from these experts that proven tools to combat drunk driving, such as high-visibility law enforcement by specially trained officers, will prevent tragedies caused by drug-impaired driving. We also learned that there is so much more to learn. We need more research, more data, and better testing to fully understand how the increased use of marijuana and other drugs will impact traffic safety and the under 21 population.

Four decades after MADD first challenged the nation to dramatically change lax attitudes and laws toward drunk driving, we are rolling up our sleeves again to stop the tragedies caused by marijuana impaired driving and under 21 consumption. This survey is a critical step toward understanding Americans' behaviors and attitudes toward marijuana use, impairment, and driving. The results are both informative and incredibly alarming. Our sincere hope is the findings will serve as a guide toward solutions that will honor those we could not save and lead us to a nation of **NO MORE VICTIMS®**.

madd®

NO MORE VICTIMS®

MORE RESEARCH. LESS FICTION.



Since MADD's founding in 1980, we have advocated for stronger laws and policies based on proven research and data. With a growing number of states allowing legal use of marijuana, our nation must understand its impairing effects on our drivers and implement policies that improve the safety of our nation's roadways.

That is why more research and data for drugged driving is needed to help define and identify the impairing effects of legal and illegal drugs, and to better understand the number of drivers involved in drug-impaired driving crashes. It is critical that we have research and data to better understand the problem of drugged driving. While there is a lot we don't know as it relates to marijuana-impaired driving, we do know that the fictions and myths surrounding the drug are growing. Like the idea that it makes you a better driver or that it's "natural" and therefore safe. Or that "it isn't addictive."

We know that driving while under the influence of marijuana **does not** make you a better driver. According to the Centers for Disease Control and Prevention, THC, the main active ingredient in marijuana, affects areas of the brain that control the body's movements, balance, coordination, memory and judgment — skills needed to drive safely [1]. Studies have shown that, of seriously injured drivers admitted to trauma centers, more than 1 out of 4 tested positive for marijuana [2]. In addition, it is known that marijuana is the most frequently detected drug (other than alcohol) in crash-involved drivers as well as the general driving population [3].

We know that the dangers become even greater when marijuana is combined with alcohol, which is still the deadliest threat on our roadways. Yet as more states legalize marijuana, more young people are using the drug along with alcohol. Research also tells us that 1 in 3 young people who drink alcohol have also combined it with marijuana.

Research has also shown that marijuana is not safe for the developing brain. Outside of alcohol, marijuana is the leading cause of addiction and the drug of choice for youth [4]. According to the National Institute on Drug Abuse, about 1 in 5 young people reported using marijuana just in the last month [5]. By age 20, about half of young people had used it. According to new research, approximately 1 in 7 middle school 8th graders have used marijuana in their lifetime. That number doubles to 1 in 3 by the time these children complete middle school [5].

As we celebrate MADD's 40th Anniversary this year, it's important to remember that alcohol is a drug. It took decades to learn that the level for illegal alcohol impairment is .08 BAC, and to establish routine tests for blood alcohol concentration in drivers involved in fatal crashes. The tools for measuring alcohol impairment are well established. The same cannot be said for drug impairment, but that doesn't diminish the seriousness of drug-impaired driving.

MADD will continue to press for research, new laws, and development of tools to eliminate — once and for all — the senseless, dangerous and completely preventable crime of driving while impaired by any drug. Sadly, MADD serves drunk and drugged driving victims and survivors every day. We want these victims and survivors to know that we are working hard to stop these senseless and 100 percent preventable crimes.

Without a doubt, MADD has made measurable impact on the safety of our roadways and saved hundreds of thousands of lives over the last 40 years. We remain steadfast in our commitment to a future of **NO MORE VICTIMS®**.

MADD will continue to press for research, new laws and development of tools to eliminate - once and for all - the senseless, dangerous and completely preventable crime of driving while impaired by any drug.

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5. https://www.drugabuse.gov/drugs-abuse/marijuana

THE BEST WAY TO FIGHT DRUGGED DRIVING IS TO DO MORE DRUNK DRIVING ENFORCEMENT

Law enforcement officers are our best allies in the effort to reduce drugged driving and are the heroes who make our roads safe. Much like with drunk driving, the best way to deter and detect would-be drugged drivers is through the use of high-visibility enforcement tactics. These include sobriety checkpoints and saturation patrols.

Because of the wide array of drugs and their varying levels of impairment, training is key to ridding our roadways of drugged drivers. That's why MADD supports the full implementation of specialized training programs to assist law enforcement officers in detecting drugged drivers.



DRUG RECOGNITION EXPERTS (DRE)

The Drug Evaluation and Classification (DEC) program was created through a collaboration between the National Highway Traffic Safety Administration (NHTSA) and the International Association of Chiefs of Police (IACP).

The DEC program, also referred to as the Drug Recognition Expert (DRE) program, was developed to help officers identify drug-impaired drivers. To become a DRE, officers must follow a rigorous three-phase training curriculum and learn to conduct a standardized and systematic 12-step evaluation consisting of physical, mental, and medical components.

ADVANCED ROADSIDE IMPAIRED DRIVING ENFORCEMENT (ARIDE)

For those agencies that lack the funding to employ a full time DRE, an alternative training has been established – the Advanced Roadside Impaired Driving Enforcement (ARIDE) program.

ARIDE was created by NHTSA to address the gap between the traditional Standard Field Sobriety Test training given to officers to assist in detecting impaired drivers and the DEC/DRE program. The course requires 16 hours of classroom training versus the three-phase curriculum required to become a certified DRE.

STANDARDIZED FIELD SOBRIETY TESTING (SFST)

Standardized Field Sobriety Testing (SFST) remains the foundation of impaired driving detection and enforcement for some 800,000 officers across the country. Some states, however, do not require SFST training for officers assigned to patrol functions. MADD expects all officers to have the basic SFST skills to detect an impaired driver on the road. In addition, MADD strongly encourages law enforcement agencies to conduct periodic refresher courses in the basic use of SFST skills.

BACKGROUND & METHODS

Given the broad variation in state marijuana laws – and the rate at which these laws are changing – there is a large amount of public confusion and misinformation on the effects of driving under the influence of THC. The Report set out to better understand public attitudes and awareness when it comes to marijuana-impaired driving. In addition, the report will provide a foundation on which to base outreach and education aimed at reducing crashes and fatalities on the roads due to impaired driving from the use of THC.

The MADD Cannibas Report was conducted by Ipsos Public Affairs using the KnowledgePanel—the only large-scale representative panel of the adult population in the U.S. for which members are recruited using a probability-based and address-based sampling methodology. In order to maintain full representation of all adults, households without internet access are provided internet-enabled devices and an internet service provider (ISP) as well.

From February 14, 2020 - February 18, 2020, a random sample of 1,020 adults, 18 years of age and older from across the United States were interviewed, including:

N=270
interviews in states where marijuana is fully legal

N=427
interviews in states where marijuana is legal for medicinal purposes, only

N=323
interviews in states where marijuana is fully illegal

In addition to the national sample, another 765 interviews were conducted to achieve a minimum of 150 responses in 6 key states, including Colorado.

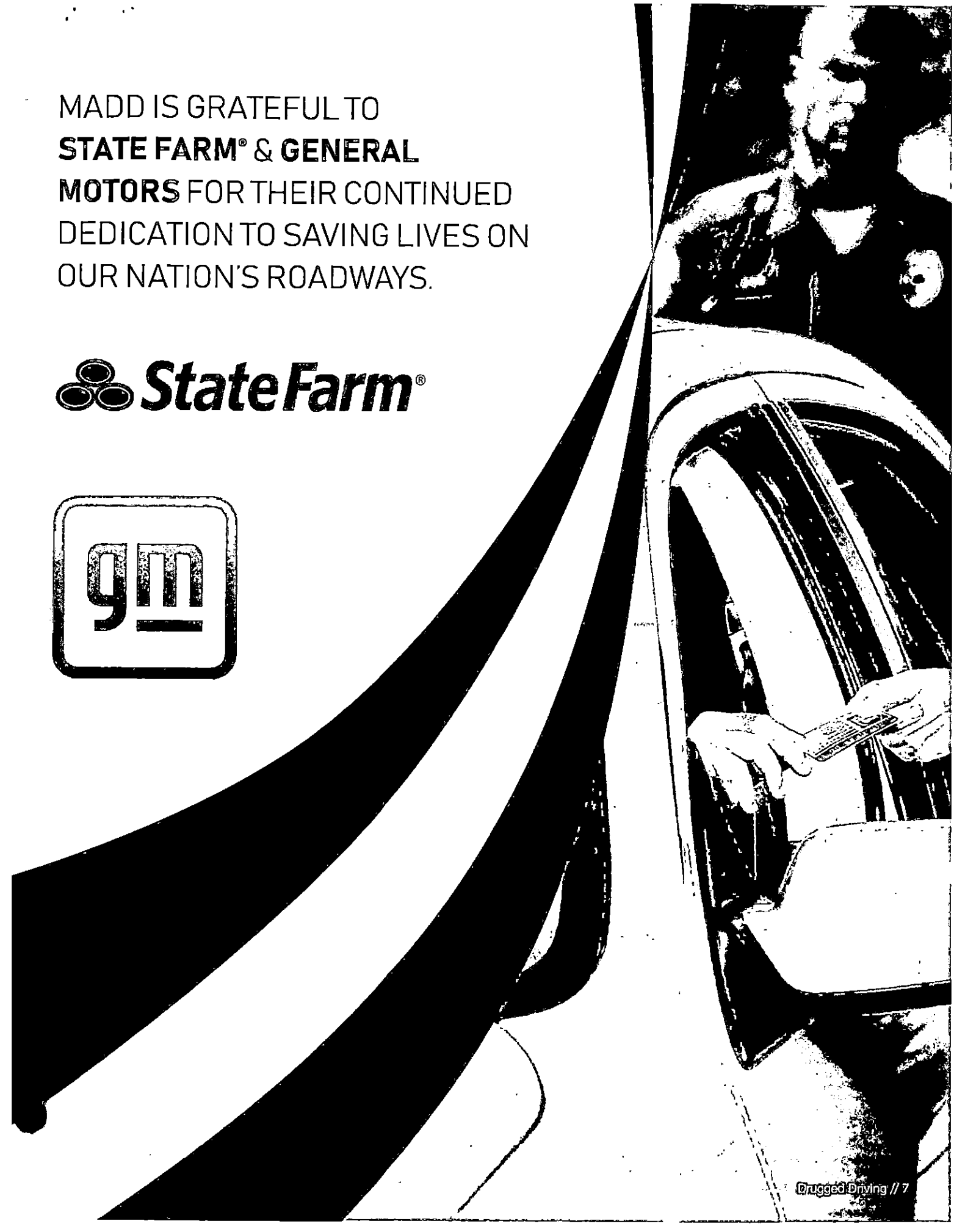
KEY FINDINGS

- Driving after recently consuming marijuana is seen as less of a public safety concern (46% rate as "very concerning") than alcohol (54%) [1].
- 12% admit to personally driving within two hours of consuming marijuana.
- Many (41%) believe that driving under the influence of marijuana is safer than driving under the influence of alcohol.
- 27% recall a friend or family member driving within two hours of consuming alcohol sometime during the past three months.
- 13% recall someone close to them driving within two hours of consuming marijuana in the past three months.
- More than 6 in 10 answer incorrectly or are unsure whether a person's frequency (67%) and method (62%) of consuming marijuana will impact how long it stays in one's system.
- 41% are unsure or incorrectly believe that people who regularly use marijuana are generally not impaired, making it safe to drive.
- There is also uncertainty in whether it is legal to drive impaired by marijuana: 40% view this as a serious crime, 27% say it is only a minor traffic offense, 4% think it is legal, and 27% are unsure.
- 79% agree they don't hear much about driving high [1] in the news today, though another 76% believe it will only increase as more states legalize marijuana use.
- 83% believe that additional research needs to be done about the effects of driving high, with close to half (47%) "strongly" agreeing with this statement.
- Colorado residents stand out as being significantly more knowledgeable about the effects of driving under the influence of marijuana. Other states, including those where marijuana has been legalized, tend to have attitudes and behaviors that are more similar to U.S. adults nationwide.

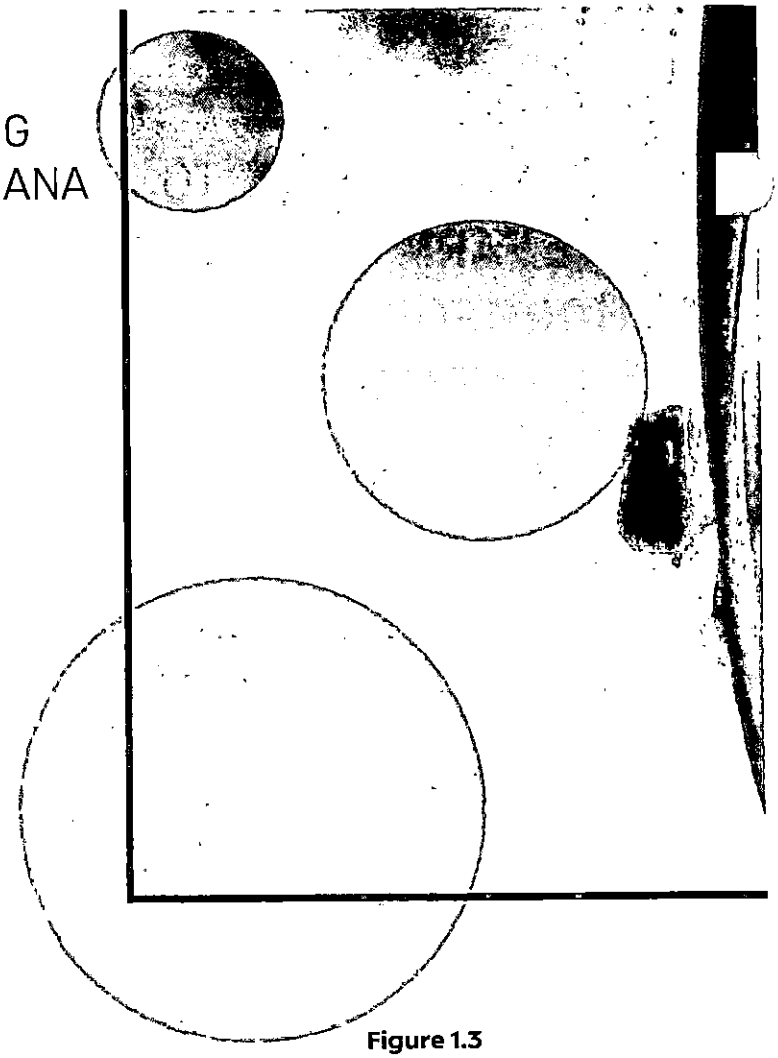
1. *"driving within two hours of consuming marijuana/cannabis/THC" and "driving within two hours of consuming alcohol"*

This survey was conducted February 14 – 18, 2020, before widespread impacts of the coronavirus pandemic in the US. It is viewed as a baseline of perceptions and attitudes.

MADD IS GRATEFUL TO **STATE FARM®** & **GENERAL MOTORS** FOR THEIR CONTINUED DEDICATION TO SAVING LIVES ON OUR NATION'S ROADWAYS.



1 IN 8 NATIONALLY ADMIT TO DRIVING UNDER THE INFLUENCE OF MARIJUANA



Twelve percent of adults across the United States admit to driving within two hours of consuming marijuana (Figure 1.1). This figure rises to 16% among U.S. adults ages 50-64, while men are more than twice as likely as women to report driving under the influence of marijuana (17% vs. 7%). Additionally, those who report having driven under the influence of marijuana tend to believe it is safer than alcohol (70% vs. 37% among those who have not driven under the influence of marijuana) and less of a public safety concern (25% vs. 50%) **(Figure 1.2 and 1.3)**.

At the other end of the spectrum, young adults across the United States – those ages 18-24 – tend to be somewhat more cautious than those ages 25-34, when it comes to driving under the influence of marijuana. For instance, 18-24 year-olds are half as likely as those ages 25-34 to report driving within two hours of consuming marijuana (6% vs. 13%). They are also less likely to believe that driving under the influence of marijuana is safer than alcohol (37% vs. 57%). And lastly, they are more likely to view driving high as a "very concerning" public safety issue (52% vs. 29%).

Figure 1.1
EVER DRIVEN WITHIN 2 HOURS OF CONSUMING MARIJUANA

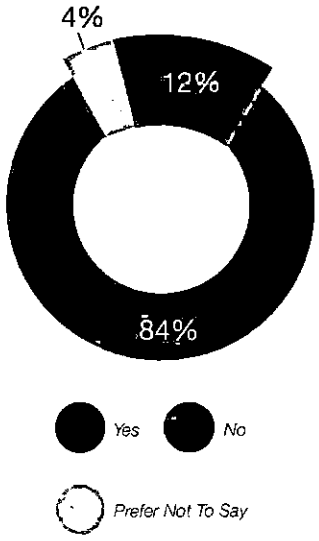


Figure 1.2
DRIVING UNDER THE INFLUENCE OF MARIJUANA IS SAFER THAN ALCOHOL

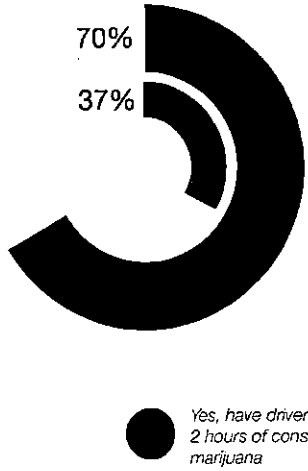
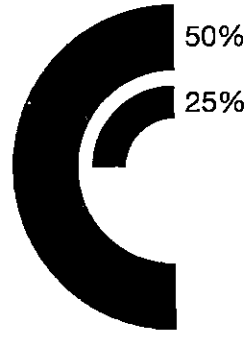
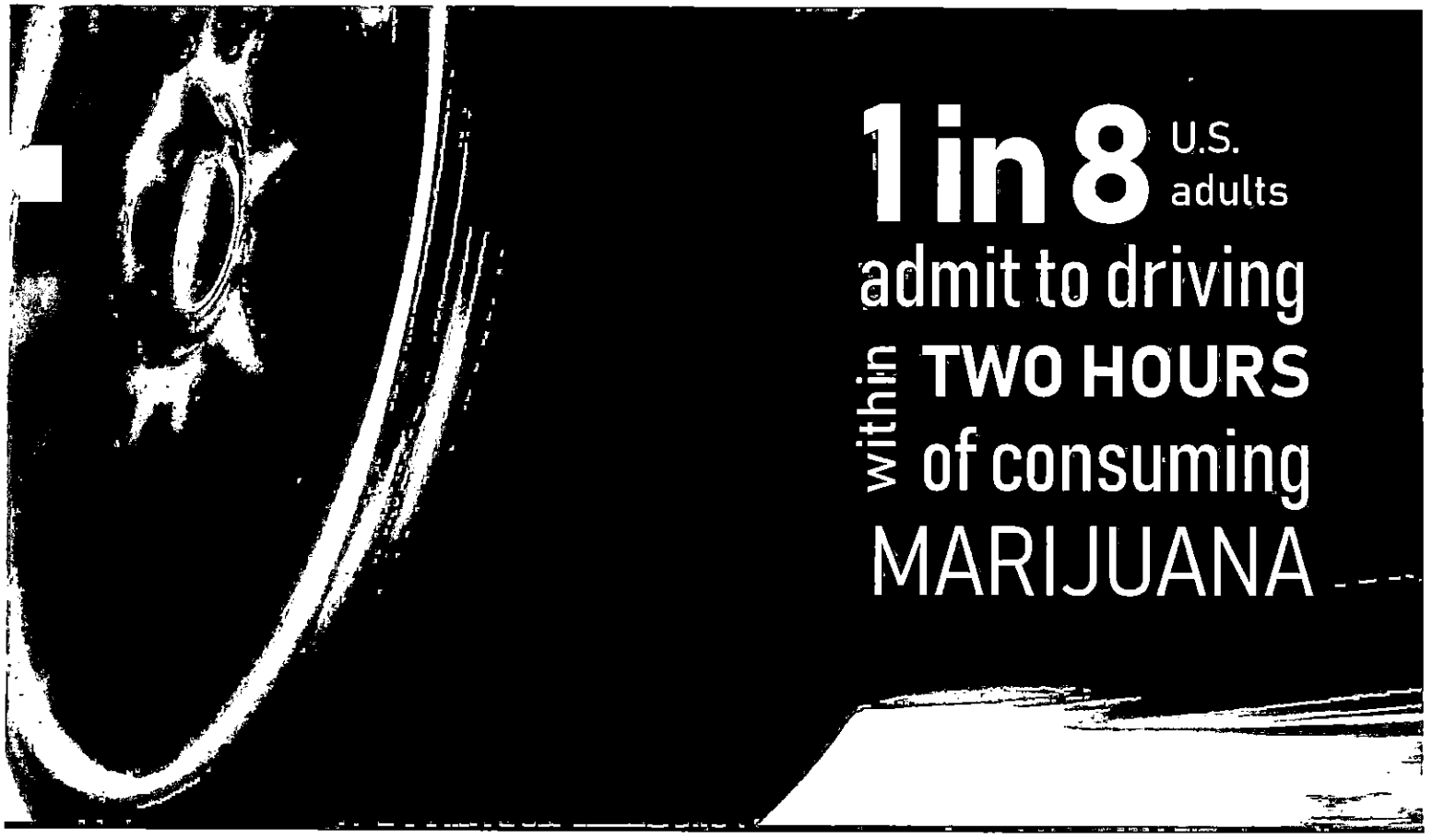


Figure 1.3
DRIVING UNDER THE INFLUENCE OF MARIJUANA IS A VERY CONCERNING PUBLIC SAFETY ISSUE





DRIVING HIGH SEEN AS LESS CONCERNING - AND SAFER- THAN DRIVING DRUNK

U.S. adults ages 18 and over were asked to assess the level of public safety concern that driving within two hours of consuming alcohol and within two hours of consuming marijuana poses to their communities. More than half (54%) rate driving after recent consumption of alcohol as "very concerning," while fewer than half (46%) are "very concerned" when it comes to marijuana. **Moreover, a sizable one in four (26%) see driving after recent consumption of marijuana to be "a little" or "not at all concerning" (Figure 1.4).**

Not only is driving under the influence of marijuana seen as less of a public safety concern than alcohol, but many U.S. adults believe it is safer as well. **4 in 10 (41%) agree either strongly or somewhat that driving under the influence of marijuana is safer than driving under the influence of alcohol (Figure 1.5).**

Figure 1.4
DEGREE OF PUBLIC SAFETY CONCERN
(DRIVING WITHIN 2 HOURS OF CONSUMING...)

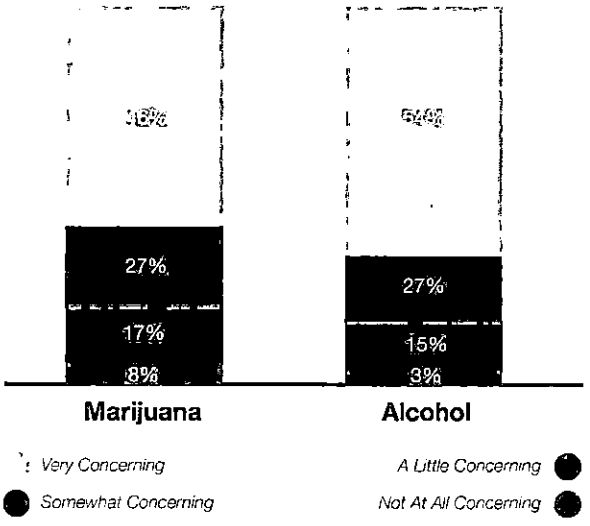
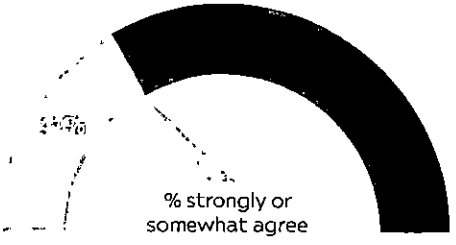


Figure 1.5
DRIVING UNDER THE INFLUENCE OF MARIJUANA IS SAFER THAN DRIVING UNDER THE INFLUENCE OF ALCOHOL



OPPORTUNITIES FOR COMMUNICATION EXIST AROUND BOTH DRUNK DRIVING AND DRIVING HIGH

More than 1 in 4 (27%) U.S. adults recall a friend or family member driving within two hours of consuming alcohol sometime within the past three months. About half as many (13%) say the same of marijuana. These figures are largely consistent among both men and women, and across most age groups. Adults ages 65-plus are the exception, where recall is lower for marijuana (5%).

43% of parents and grandparents report "never" broaching the subject of driving high with the next generation.

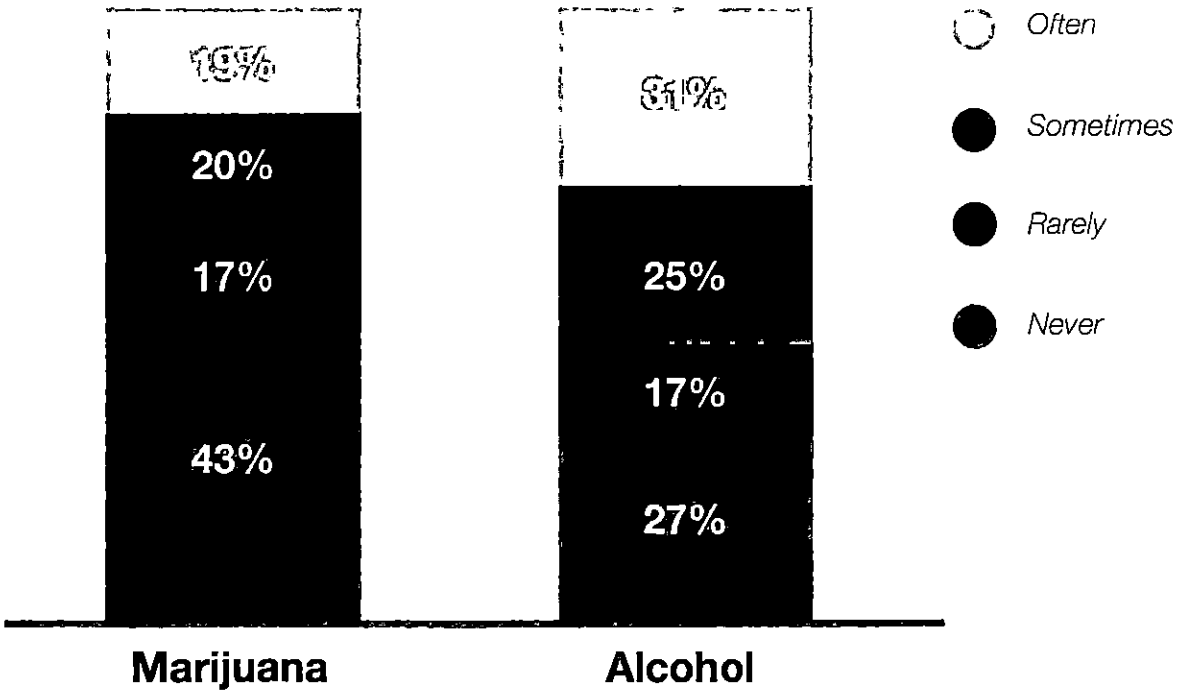
Given that U.S. adults are more likely to recall someone close to them driving under the influence of alcohol than of marijuana, it comes as little surprise that conversations about drunk driving are happening more often as well.

Parents and grandparents were asked how frequently they discuss the potential consequences of driving after recently consuming both alcohol and marijuana. Three in 10 (31%) report discussing the consequences of driving under the influence of alcohol "often." Fewer – just 1 in 5 (19%) – say the same of marijuana. **In fact, more than 4 in 10 (43%) parents and grandparents report "never" broaching the subject of driving high with the next generation (Figure 1.6).**

Figure 1.6

FREQUENCY OF DISCUSSING WITH CHILDREN / GRANDCHILDREN

(DRIVING WITHIN 2 HOURS OF CONSUMING...)

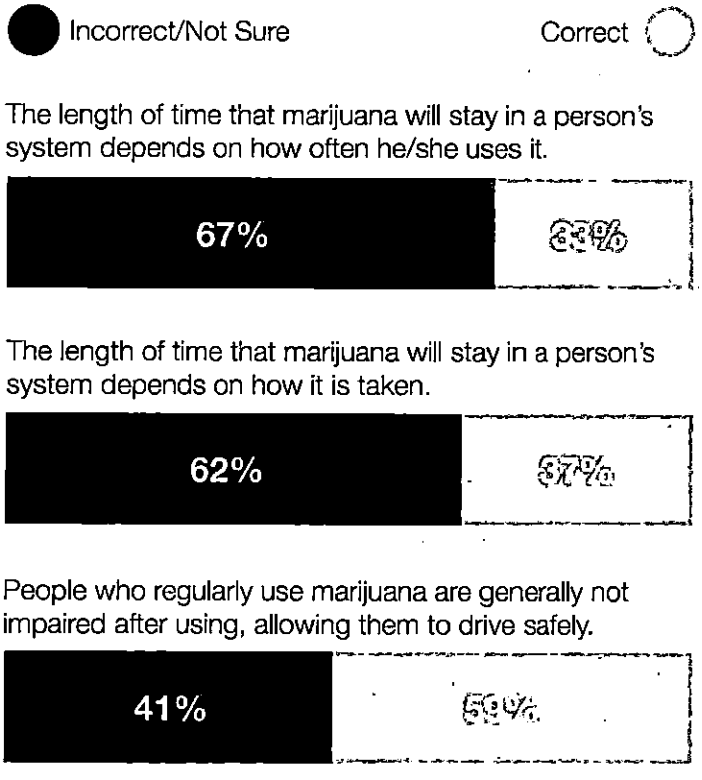


MUCH CONFUSION EXISTS AROUND HOW LONG MARIJUANA STAYS IN A PERSON'S SYSTEM AND THE EFFECTS OF DRIVING AFTER CONSUMING MARIJUANA

There is a good deal of confusion when it comes to the length of time that marijuana stays in a person's system. For instance, two-in-three (67%) U.S. adults are unsure or answer incorrectly on the notion that a person's tolerance level, or how often it is used, will impact how long marijuana stays in one's system **(Figure 1.7)**.

Nearly as many (62%) are unsure or answer incorrectly on the method of consumption – smoking, vaping, edibles, topical creams/oils, etc. – playing a role in how long marijuana stays in a person's system **(Figure 1.7)**. Moreover, 4 in 10 (41%) U.S. adults are unsure or incorrectly believe that people who regularly use marijuana are generally not impaired, making it safe to drive **(Figure 1.7)**.

Figure 1.7
KNOWLEDGE OF EFFECTS OF DRIVING AFTER CONSUMING MARIJUANA







MUCH CONFUSION EXISTS AROUND THE LEGAL IMPLICATIONS OF DRIVING AFTER CONSUMING MARIJUANA

There is also a general lack of knowledge on the laws surrounding the use of marijuana. 4 in 10 (40%) U.S. adults view driving while impaired by marijuana as a serious crime **(Figure 1.8)**. Yet, this leaves nearly 3 in 10 U.S. adults under the impression that driving while impaired by marijuana is only a minor traffic offense (27%) or unsure of the legal implications (27%) **(Figure 1.8)**. Additionally, 1 in 25 (4%) U.S. adults believe it is legal to drive while impaired by marijuana.

This lack of clarity may be giving U.S. adults a false sense of confidence that driving high is generally without consequence. In fact, 3 in 10 (31%) believe that driving within two hours of consuming marijuana "hardly ever" results in consequences like a crash, getting a ticket, or getting arrested **(Figure 1.9)**. Another 44% believe that consequences from driving under the influence of marijuana occur "only sometimes," **(Figure 1.9)**. These figures register at 12% and 47%, respectively, when it comes to driving within two hours of consuming alcohol **(Figure 1.9)**.

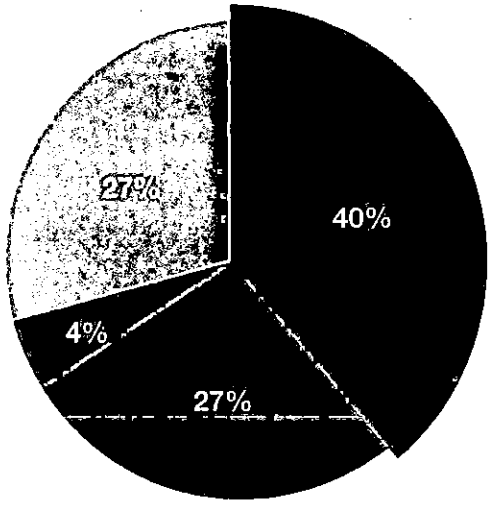


Figure 1.8

IS IT LEGAL TO DRIVE WHILE IMPAIRED BY MARIJUANA?

- Illegal, A serious crime
- Illegal, A minor traffice offense
- Legal
- Not Sure

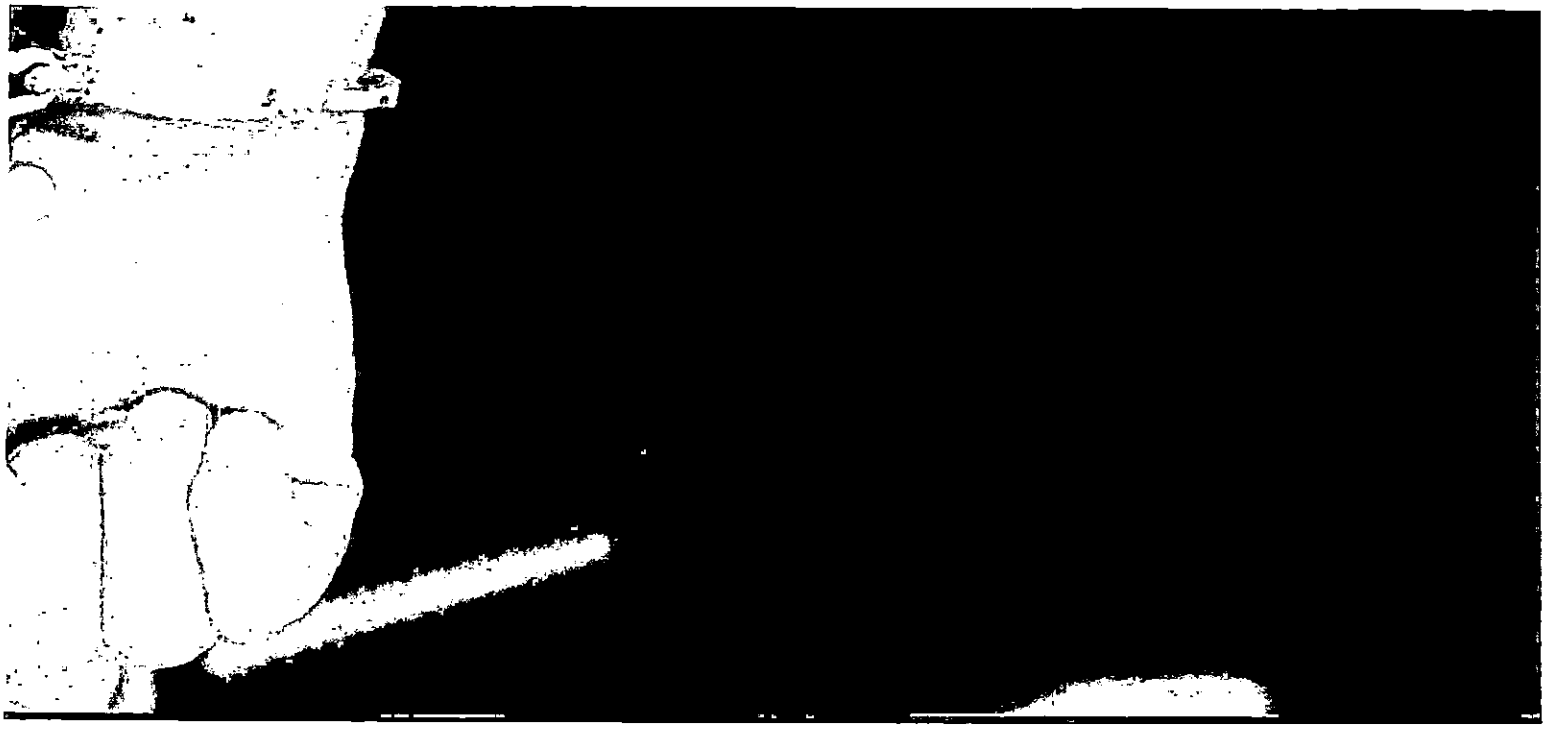
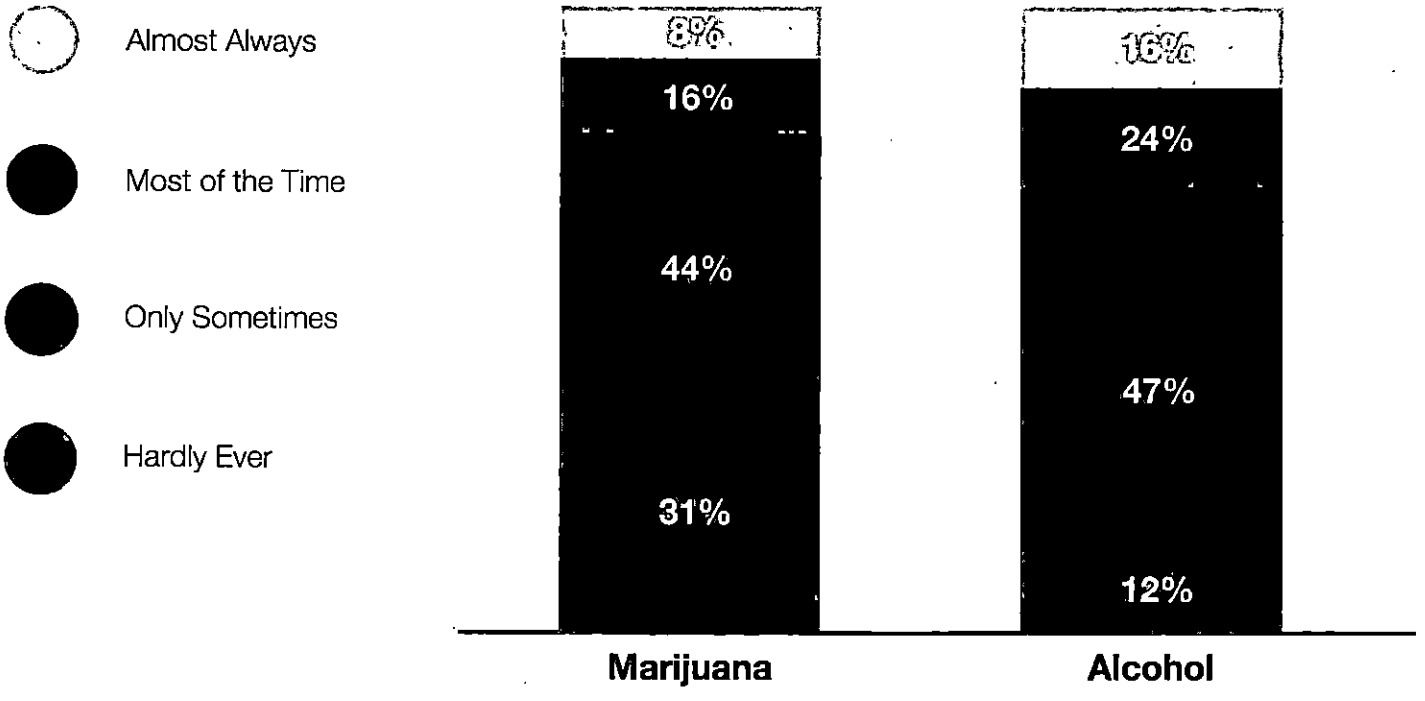
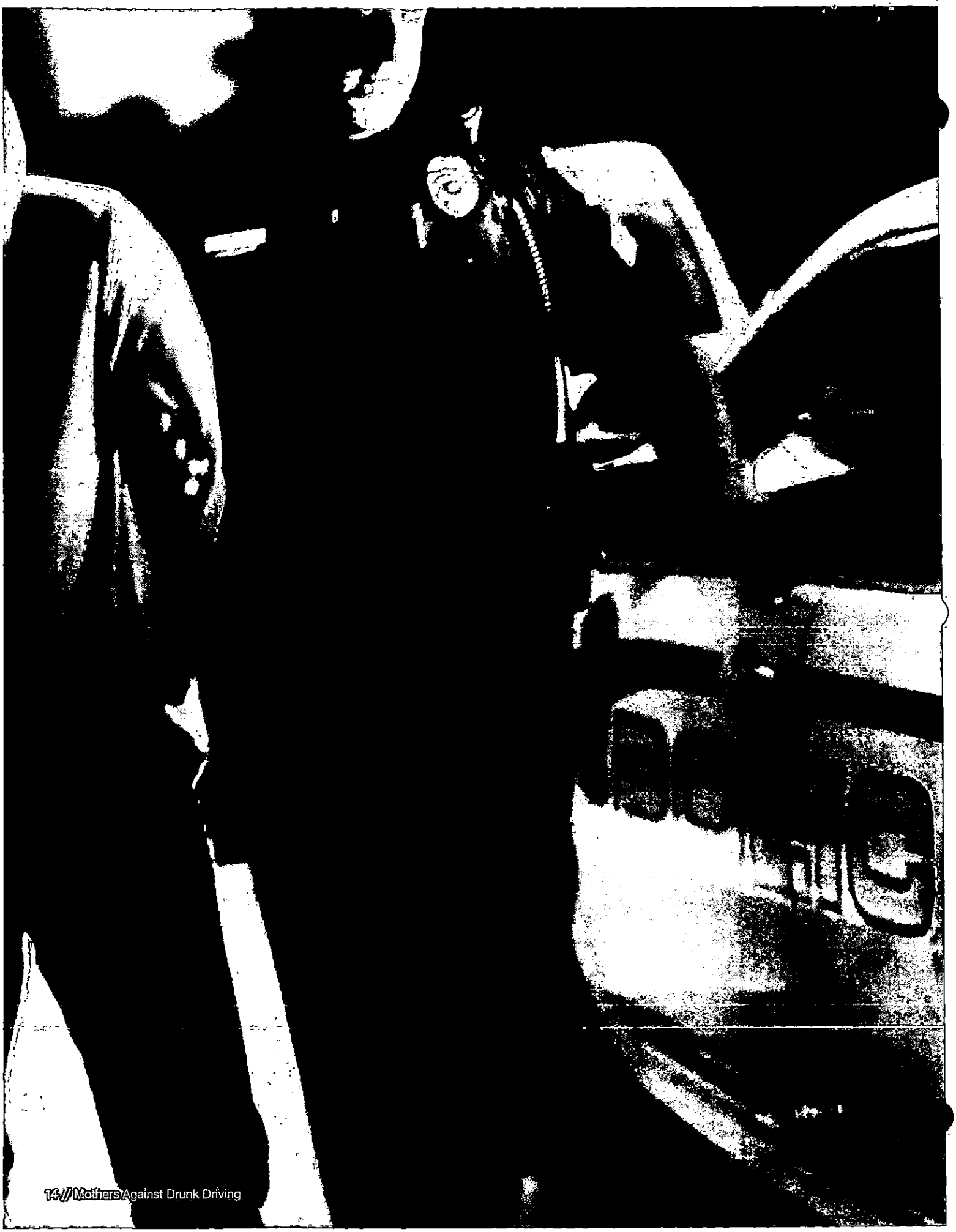
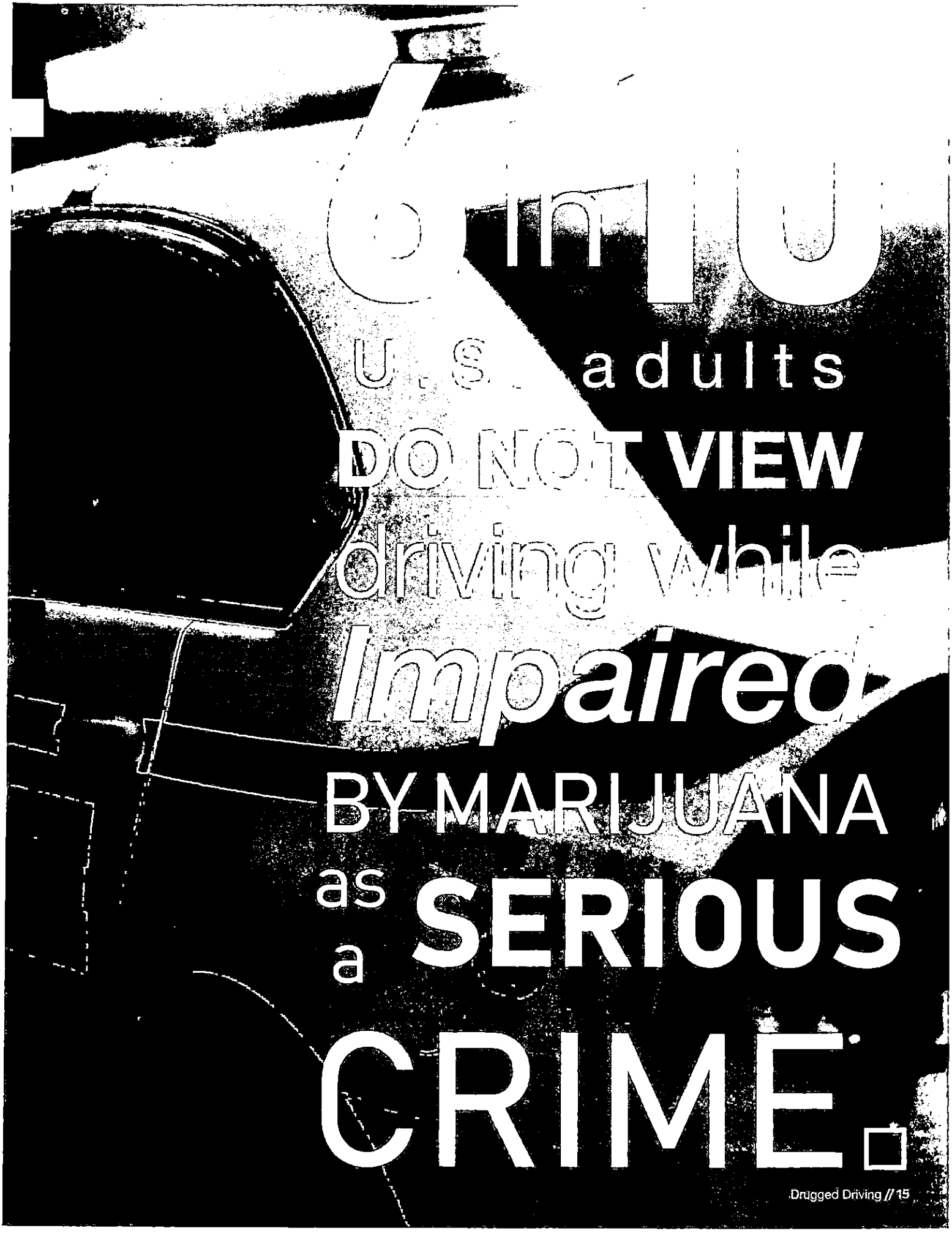


Figure 1.9

FREQUENCY OF CONSEQUENCES FROM DRIVING WITHIN 2 HOURS OF CONSUMING MARIJUANA VERSUS ALCOHOL






Only
U.S. adults
DO NOT VIEW
driving while
Impaired
BY MARIJUANA
as
a SERIOUS
CRIME.

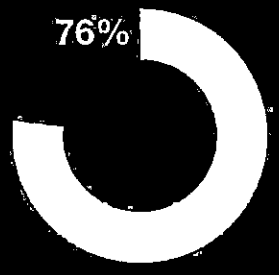
U.S. ADULTS WANT ACTION ON DRIVING HIGH

While the issue of driving high may not be top-of-mind for many U.S. adults, there is a sense that things could worsen – and that more information and research is needed. While 8 in 10 (79%) agree they don't hear much about driving high in the news today, nearly as many (76%) agree that we will see an uptick in driving high as more states legalize marijuana use **(Figure 2.0). And more than 8 in 10 (83%) believe that additional research needs to be done about the effects of driving high; nearly half (47%) "strongly agree" with this statement (Figure 2.0).**

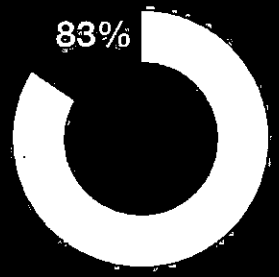
Figure 2.0

ATTITUDES TOWARDS DRIVING HIGH

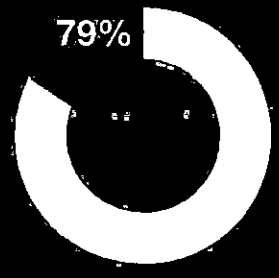
(% STRONGLY OR SOMEWHAT AGREE)



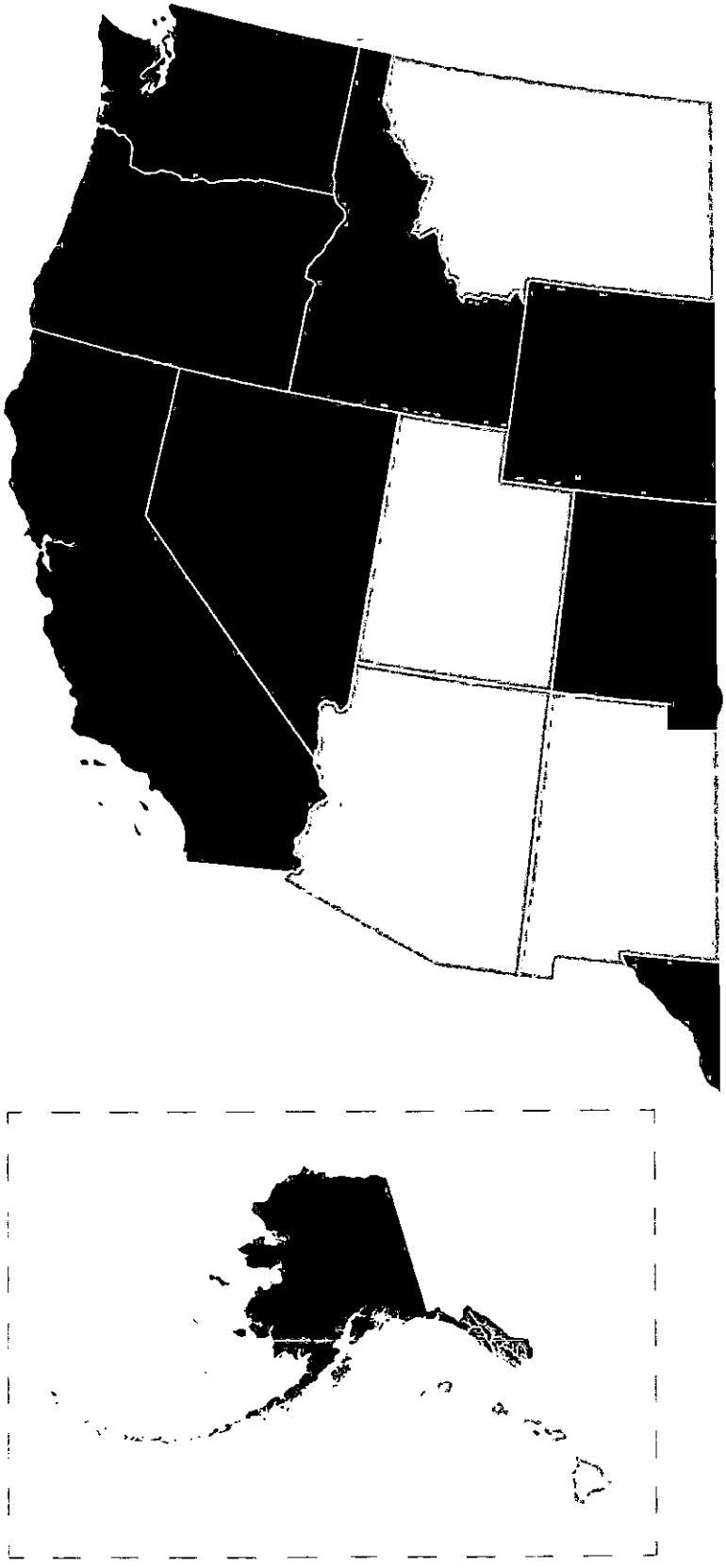
Driving high will only increase as more states legalize.



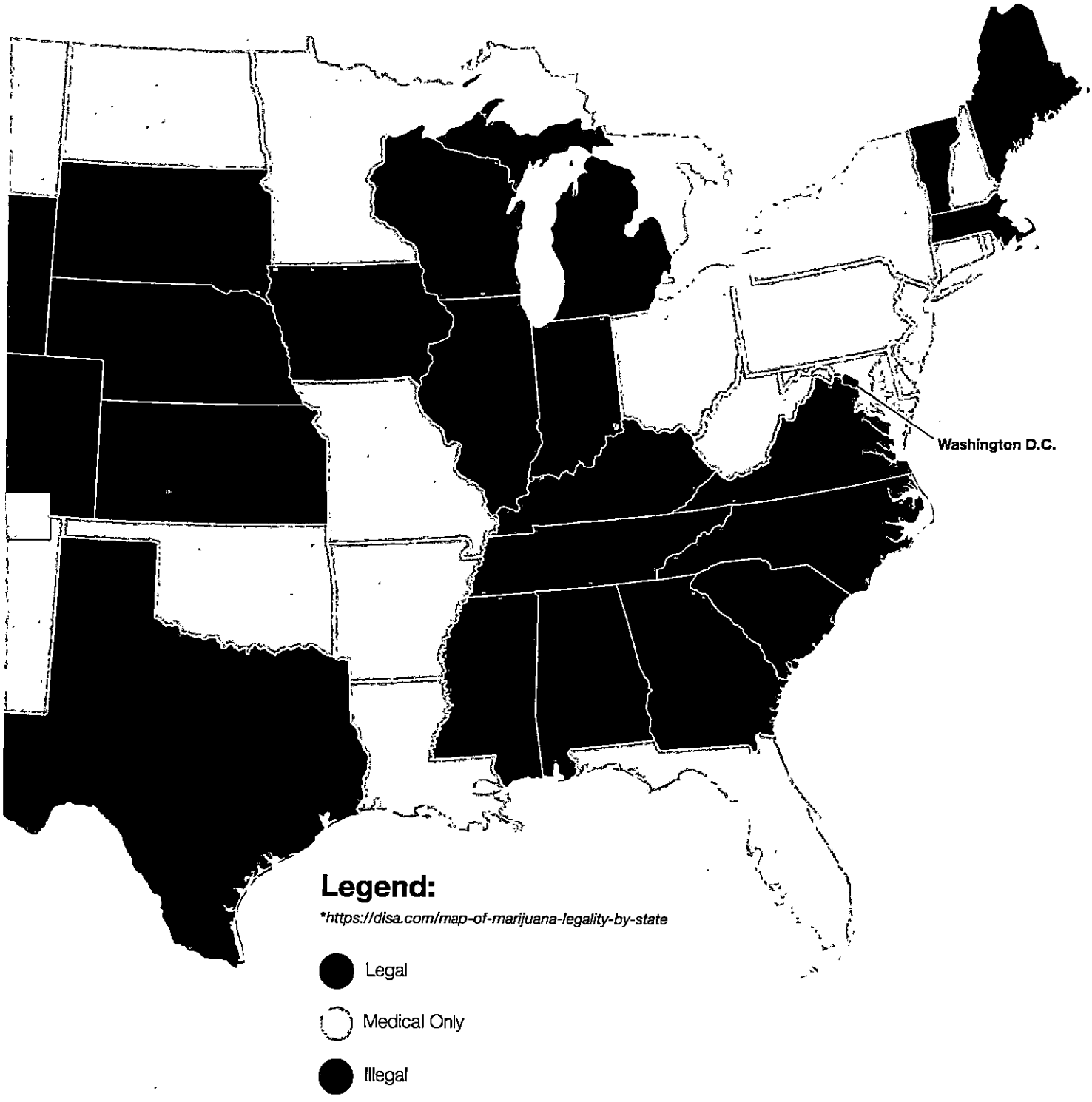
More research needs to be done on the effects of driving high.



I do not hear much about it.



MARIJUANA LEGALIZATION ACROSS THE UNITED STATES



States that have decriminalized marijuana possession/use and those that allow CBD use only are categorized as illegal in the above map.

STATE FINDINGS

In addition to analyzing national results, the MADD Cannabis Report also sought to understand the extent to which attitudes and behaviors differ based on the states in which survey participants reside. **Colorado – one of the earliest states to legalize marijuana for both recreational and medicinal purposes – stands out as having residents who are significantly more knowledgeable about the effects of driving under the influence of marijuana.**

Half (52%) of Colorado residents view driving high as a "very concerning" public safety issue. Yet, these individuals are significantly more likely than U.S. adults overall to view driving while impaired by marijuana as a minor traffic offense (37% vs. 27%), driving home the need for clearer information on the laws surrounding driving under the influence of marijuana. Other states, including those where marijuana has been fully legalized, tend to have attitudes and behaviors that are more similar to the general public overall **(Figure 2.1)**.

Figure 2.1

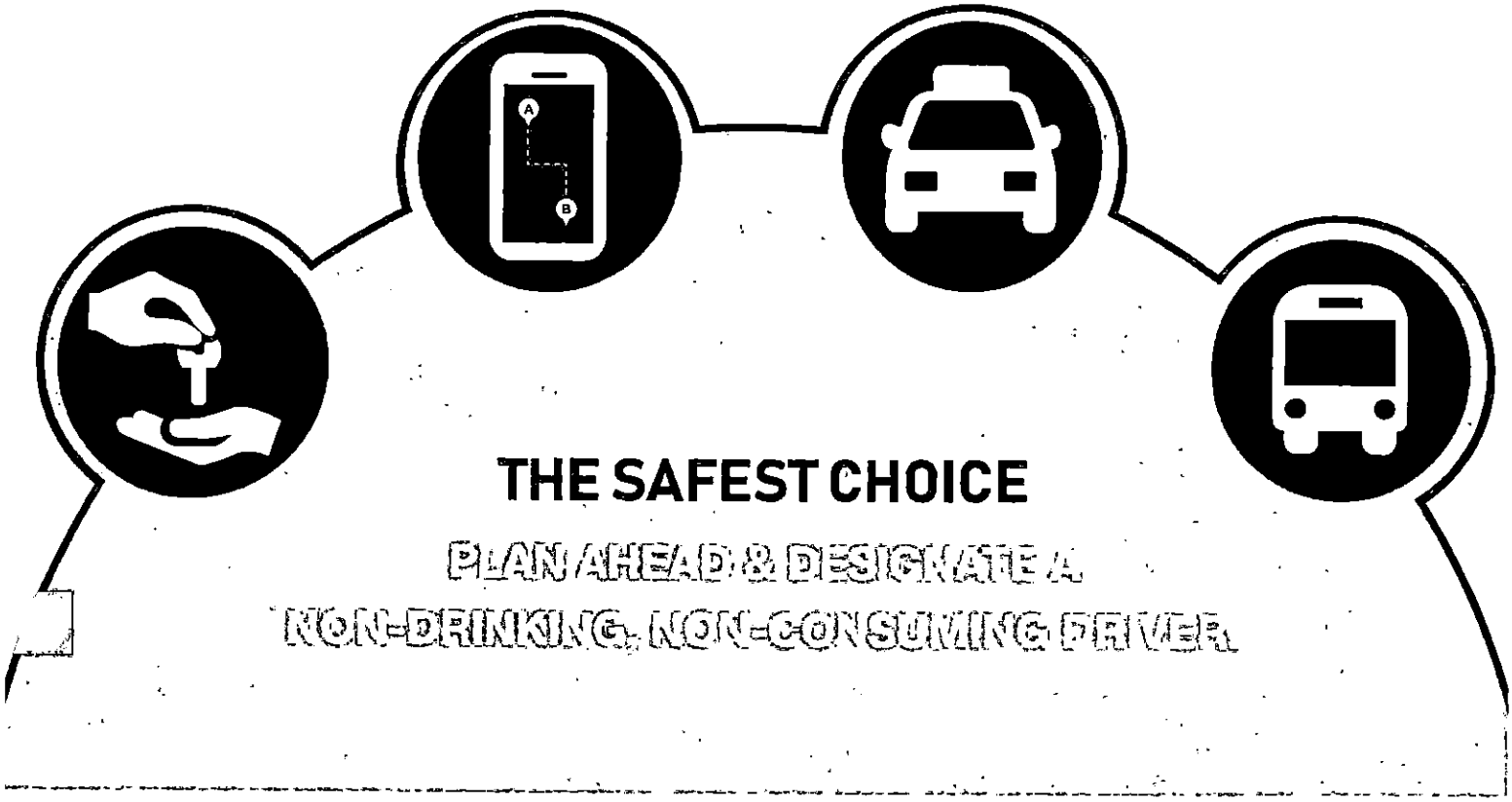
	COLORADO	NATIONAL	FULLY LEGAL	MEDICINAL ONLY	ILLEGAL
	n=156	n=1,020	270	427	323
Driving within 2 hours of consuming marijuana is a "very concerning" public safety issue.	52	46	46	47	45
Answer correctly that...					
"People who regularly use marijuana are generally not imapired after using, allowing them to drive safely" is a MYTH.	73	59	61	59	56
"The length of time that marijuana will stay in a person's system depends on how it is taken" is a REALITY.	50	37	43	35	36
"It is safe to drive after consuming marijuana if it has been purchased in a state where it is sold legally, in a store or dispensary" is a MYTH.	86	64	67	65	63
Have driven within 2 hours of consuming marijuana.					
Yes.	18	12	12	10	14
No.	78	84	79	87	84
Prefer not to say.	4	3	7	2	2
View driving while impaired by marijuana as...					
Illegal – serious crime.	39	40	39	31	46
Illegal – a minor traffic offense.	37	27	32	36	21
Legal.	3	4	4	3	4
Not sure.	20	27	24	30	26

Figure represents percent of respondents
Underlined figure (X) represents a significantly higher score vs. the national sample at the 95% confidence interval

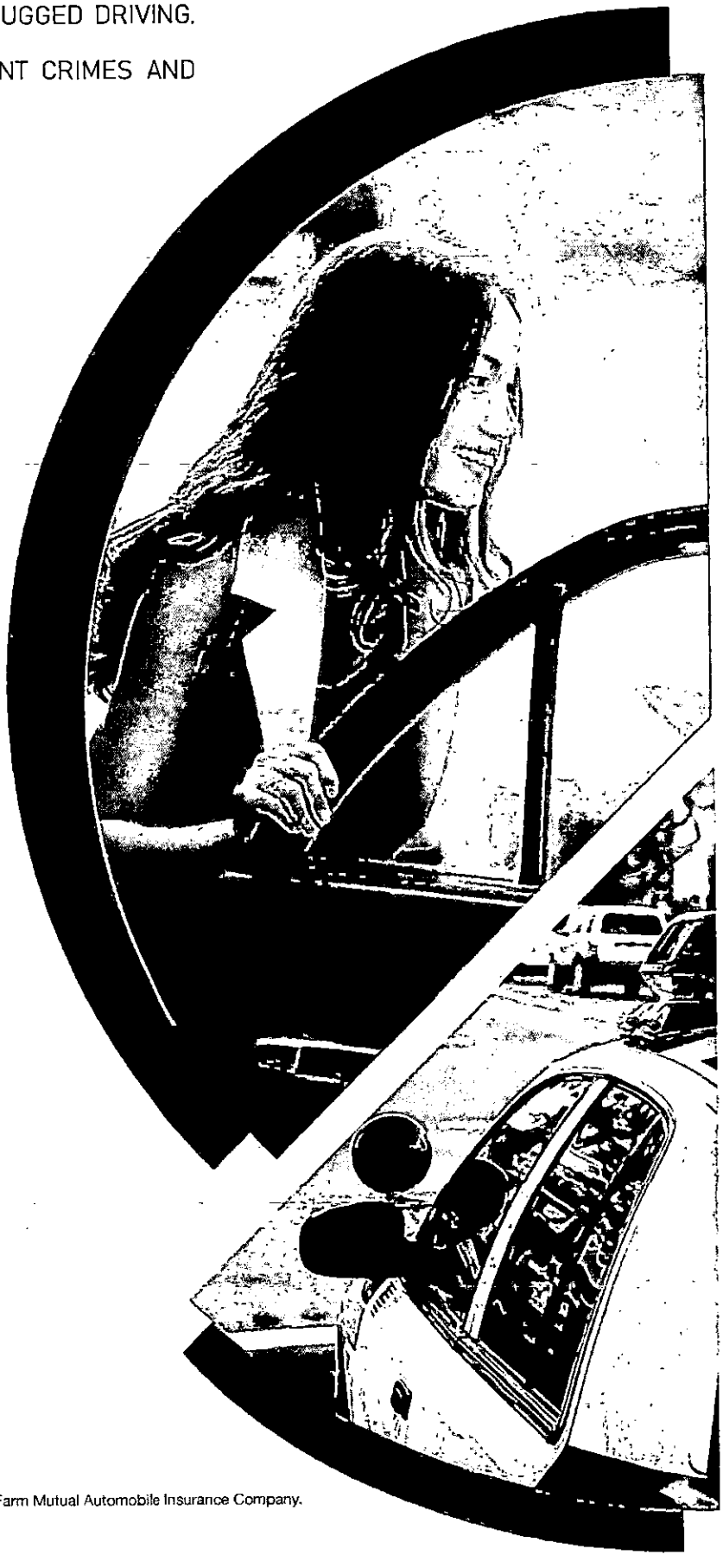
Driving under the influence of any drug, including marijuana, all too often has tragic consequences. Combining both marijuana and alcohol is even more dangerous than using either substance alone, leading to greater impairment and a greater risk of getting into a crash.

The growing number of victims of drug-impaired driving are at the heart of our plea when we say, "just because you drive somewhere, doesn't mean you have to drive home." We live in a world with so many options available today, there is never any excuse to drive impaired. Please, designate a non-drinking, non-consuming driver, use public transportation, call a taxi or use a ride share app. Drunk and drugged driving is a danger to everyone on the road. As more states legalize marijuana, we need to work even harder to make sure everyone makes it home safe. It's up to all of us. Plan ahead for a safe ride home, don't drive under the influence of drugs or alcohol.

We live in a world with so many options available today, there is never any excuse to drive impaired.



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STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH SERVICES
THERAPEUTIC CANNABIS PROGRAM

Lori A. Weaver
Interim Commissioner

Patricia M. Tilley
Director

29 HAZEN DRIVE, CONCORD, NH 03301
603-271-9333 1-800-852-3345 Ext. 9333
TDD Access: 1-800-735-2964
email: TCP@dhhs.nh.gov

April 20, 2023

HB 639-FN, relative to the legalization and regulation of cannabis and making appropriations therefor
Senate Judiciary Committee

Senator Carson and Members of the Committee:

The Department of Health and Human Services (Department) does not take a position on HB 639, but would like to provide information to the committee relative to certain public health related matters associated with this bill.

Issues of Concern

- The bill does not establish a cannabis advisory board, which would allow public health, public safety, and other concerns about harm reduction to be voiced and considered as the adult-use program is being developed and implemented.
- The bill does not set a limit on the number of licenses allowed to be held by a single entity, across various types of cannabis establishments. Such limits are considered an important safeguard against large corporate interests from dominating a state's cannabis industry.
- The bill does not require that cannabis testing facilities be independent. The bill would allow a testing laboratory to be owned and operated by the same entity that cultivates, manufactures, or sells retail cannabis, thus creating the potential for a conflict of interest between the testing facility and the products they are testing.
- There are no social justice/social equity provisions in the bill, such as expungement of certain criminal convictions.
- Serving size and potency:
    - The proposed limitation of 20 mg of tetrahydrocannabinol (THC) per serving is an unreasonably high limitation, and that, combined with the allowance for the proposed Liquor and Cannabis Commission to increase the serving size limit through rulemaking, is the functional equivalent of no limit on how much THC is allowed in a single serving;
    - Specific potency limits are left to rulemaking, absent specific guidance from the Legislature.
- The bill establishes a Substance Abuse and Recovery Fund to be administered by the Department for disbursement of cannabis sales revenue for approved public health and behavioral health uses. However, there is no appropriation for additional Department staff needed to administer disbursement from this fund.
- Funding for the preliminary public media and social media campaigns about the risks of cannabis use may not be sufficient to meet its purpose for a comprehensive campaign.
- Data and monitoring needs are not addressed. For a comprehensive public health approach, it is critical to ensure data is available on the short and long term health effects of cannabis, incidence of emergency department visits and hospitalizations, impaired driving, workplace impairment, and worker-related injury and safety, prevalence of psychiatric and substance use disorder inclusive of cannabis use disorder.

Department staff are available to work with the bill's sponsors and with Committee members on improvements to this proposed legislation.

Respectfully submitted,

Michael Holt, Administrator
Therapeutic Cannabis Program
Division of Public Health Services
NH Department of Health and Human Services
29 Hazen Drive
Concord, NH 03301
(603) 271-9234
michael.holt@dhhs.nh.gov

Jenny O'Higgins, Senior Policy Analyst
Division for Behavioral Health
NH Department of Health and Human Services
129 Pleasant Street
Concord, NH 03301
Office: (603) 271-9447
Cell: 603-406-4178
Jennifer.ohiggins@dhhs.nh.gov

Complete Document

Can Be Viewed

In Bill Folder

Hudson Institute

POLICY MEMO

The "Colorado Experiment": Legalized Marijuana's Impact in Colorado

BY DAVID W. MURRAY
Senior Fellow, Hudson Institute

June 2021

The state of Colorado has been offered up by many policy makers as a test case regarding the wisdom of drug legalization. Colorado has permitted "medical" marijuana sales since 2009, and it allowed for outright commercialization ("recreational use"), as permitted by the Obama administration, since 2014.

Drug legalization advocates have consistently invited the nation, particularly states considering following the Colorado model, to view the state as a real-world "experiment," demonstrating the benefits or harms of legalized drugs. But beyond the first blush of enthusiasm claiming that "the sky hasn't fallen" as a result of unhindered access to marijuana, there have been few media accounts citing actual data about how Colorado is faring.

The road is rockier than many believe. In fact, given the preponderance of glowing testimonials from advocates, it may come as a surprise that this month, a quiet resistance to legalization burst into the open. The event was the passage of state bill **H 1317**, which applies limits to the state's medical marijuana industry. Passing with strong bipartisan majorities in both houses of the state legislature, the bill was recently signed into law.

Purchases of high-potency marijuana will now be limited (down to only a fifth of the current level). The bill requires warning labels, real-time monitoring of sales, and stiffened medical recommendations from physicians. It also calls for the Colorado School of Public Health to research the mental and physical health effects of the drug.

It should be clear that not all is well in the relationship between Colorado citizens and the state marijuana industry, in spite of the money the marijuana lobby has invested in protecting itself politically among state power brokers.

David Murray



David W. Murray is a senior fellow at Hudson Institute where he co-directs the Center for Substance Abuse Policy Research. While serving previous posts as chief scientist and associate deputy director (supply reduction) in the federal government's Office of National Drug Control Policy, Dr. Murray directed extensive scientific research on all aspects of the drug problem and helped coordinate high-level inter-agency efforts to limit the production of illicit drugs and counter the transnational criminal organizations that control their global shipment and marketing.

Before entering government, Dr. Murray was executive director of the Statistical Assessment Service and held academic appointments at Connecticut College and Brown, Brandeis, and Georgetown Universities. He is the author of numerous scholarly papers, essays, and commentaries; co-author (with Joel Schwartz and S. Robert Lichter) of the widely-noted book *It Ain't Necessarily So: How Media Make and Unmake the Scientific Picture of Reality*; and a frequent guest on major network television and radio programs.

Dr. Murray holds an M.A. and Ph.D. in social anthropology from the University of Chicago.

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Hudson Institute
1201 Pennsylvania Avenue, N.W.
Fourth Floor
Washington, D.C. 20004

+1.202.974.2400
info@hudson.org
www.hudson.org

Therapeutic Cannabis Program

Protections and Prohibitions for Qualifying Patients

RSA 126-X creates an exemption in state law from criminal penalties for the therapeutic use of cannabis provided that its use is in compliance with RSA 126-X.

PROTECTIONS

Listed below are some of the protections granted to Qualifying Patients by RSA 126-X regarding the therapeutic use of cannabis. These protections are applicable only in the State of New Hampshire and do not extend beyond the borders of the state.

Pursuant to RSA 126-X:2, I:
"A qualifying patient shall not be subject to arrest by state or local law enforcement, prosecution or penalty under state or municipal law, or denied any right or privilege for the therapeutic use of cannabis in accordance with this chapter, if the qualifying patient possesses an amount of cannabis that does not exceed the following: (a) Two ounces of usable cannabis; and (b) Any amount of unusable cannabis."

Pursuant to RSA 126-X:2, IV(a) and (c):
"(a) A qualifying patient is presumed to be lawfully engaged in the therapeutic use of cannabis in accordance with this chapter if the qualifying patient possesses a valid registry identification card and possesses an amount of cannabis that does not exceed the amount allowed under this chapter.
(c) The presumptions made in [subparagraph (a)] may be rebutted by evidence that conduct related to cannabis was not for the purpose of treating or alleviating the qualifying patient's qualifying medical condition or symptoms or effects of the treatment associated with the qualifying medical condition, in accordance with this chapter."

Pursuant to RSA 126-X:2, VI:
"A person otherwise entitled to custody of, or visitation or parenting time with, a minor shall not be denied such a right solely for conduct allowed under this chapter, and there shall be no presumption of neglect or child endangerment."

Pursuant to RSA 126-X:2, VII:
"For the purposes of medical care, including organ transplants, a qualifying patient's authorized use of cannabis in accordance with this chapter shall be considered the equivalent of the authorized use of any other medication used at the direction of a provider, and shall not constitute the use of an illicit substance."

PROHIBTIONS / LIMITATIONS

Listed below are some of the prohibitions and limitations established by RSA 126-X regarding a Qualifying Patient's therapeutic use of cannabis.

There are no protections from arrest or prosecution under RSA 126-X for the use or possession of cannabis for purposes other than for therapeutic use as permitted by RSA 126-X.

There are no protections from arrest or prosecution under RSA 126-X for being under the influence of cannabis while:

- Operating a motor vehicle, commercial vehicle, boat, vessel, or any other vehicle propelled or drawn by power other than muscular power; or
- In his or her place of employment, without the written permission of the employer; or
- Operating heavy machinery or handling a dangerous instrumentality.

There are no protections from arrest or prosecution under RSA 126-X for the smoking or vaporization of cannabis IN ANY PUBLIC PLACE, including:

- A public bus or other public vehicle; or
- Any public park, public beach, or public field.

There are no protections from arrest or prosecution under RSA 126-X for the possession of cannabis in any of the following locations:

- The building and grounds of any preschool, elementary, or secondary school, which are located in an area designated as a drug free zone; or
- A place of employment, without the written permission of the employer; or
- Any correctional facility; or
- Any public recreation center or youth center; or
- Any law enforcement facility.

Private Property

RSA 126-X does not require any individual or entity in lawful possession of property to allow a guest, client, customer, or other visitor to use therapeutic cannabis on or in that property.

Pursuant to RSA 126-X:3, I:

- A qualifying patient must obtain written permission from the property owner to use cannabis on the privately owned property.
- In the case of leased property, such permission must be obtained from the tenant in possession of the property.
- A tenant shall not grant permission to smoke cannabis on the leased or rented property if smoking violates the lease or rental policies that apply to all other tenants.
- If smoking on the property violates the lease or the rental policies that apply to all tenants at the property, the tenant shall not grant the qualifying patient permission to smoke cannabis on the property. However, the tenant may grant permission to the qualifying patient to ingest cannabis or inhale cannabis through vaporization (ie, no burning of the cannabis).

Place of Employment

RSA 126-X does not require any accommodation of the therapeutic use of cannabis on the property or premises of any place of employment.

RSA 126-X does not limit in any way an employer's ability to discipline an employee for using cannabis in the workplace or for working while under the influence of cannabis.

Other

RSA 126-X does not require any health insurance provider, health care plan, or medical assistance program, including Medicaid and Medicare, to cover or reimburse any costs associated with the purchase or use of therapeutic cannabis.

As noted above, RSA 126-X does not allow the possession of therapeutic cannabis or require any accommodation of the therapeutic use of cannabis on the property or premises of any jail, correctional facility, or other type of penal institution where prisoners reside or persons under arrest are detained.

Additional Penalties

A Qualifying Patient who is found to be in possession of cannabis outside of his or her home and is not in possession of his or her registry identification card may be subject to a fine of up to $100, to be issued by a law enforcement official, and you may be subject to arrest.

Any person who makes a fraudulent representation to a law enforcement official of any fact or circumstance relating to the therapeutic use of cannabis to avoid arrest or prosecution shall be guilty of a violation and may be fined $500, which shall be in addition to any other penalties that may apply for making a false statement to a law enforcement officer or for the use of cannabis other than use allowed under RSA 126-X.

Any Qualifying Patient who sells or diverts cannabis to another person who is not a Qualifying Patient or Designated Caregiver under RSA 126-X shall be subject to the penalties specified in RSA 318-B:26, IX-a, shall have his or her Registry Identification Card revoked, and shall be subject to other penalties as provided in RSA 318-B:26.

Senate Judiciary Committee Testimony for HB639
Susan Homola
20 Apr 2023

Here are the promises made to each states' citizens when legalization is discussed:

- It will reduce black market activity for marijuana.
- It will help fund education, provide resources for drug prevention programs, and be a revenue generator.
- It will only be sold to adults over 21 and it will not be available to teens.

Fortunately, we now have 10 years of data to see how legalization promises are panning out. Here is a recap of what is happening in two states after they legalized marijuana:

Colorado
- Legalized marijuana has not reduced black market activity as expected.
- A 2020 CO law enforcement intelligence report stated there were 278 black market cases in 2019 involving the seizure of 7.5 tons of marijuana and over 15,000 marijuana edibles, destined for 29 U.S. states.
- In 2021 law enforcement disrupted an operation involved millions of dollars of illegal marijuana that involved twenty-one individuals funneling money to China.
- In addition to this transnational black market activity, other marijuana drug busts have included Mexican and Colombian cartels, as well as gangs from Cuba and Russia.
- It is estimated that for every $1 dollar of revenue generated in Colorado, it costs the state $4 in public health mitigation through an increased in substance abuse treatment, increased hospital visits, and increased policing costs.
- After CO legalized, emergency room visits due to Cannabis Use Disorder tripled over the following five years at the University of Colorado Hospital, which is one of Colorado's largest hospitals.
- Hospitalizations with marijuana exposures, diagnoses, or billing codes per 100,000 hospitalizations increased by approximately 200% after recreational legalization.
- The number of calls to poison control mentioning human marijuana exposure has increased over 400% from 2006 to 2015.
- The National Veteran Suicide Prevention Report indicates Colorado's veteran suicide rates are significantly higher than the national average, with an increase of 25% from 2018-2019 alone.
- In Colorado, where the legal age of marijuana use is 21 years or older, daily marijuana use by high school students increased by 65 percent between 2017 and 2019.
- Teen suicide rates have increased significantly over the past over the past few years, and marijuana is the number one drug found when toxicology is reported.
- Since legalization, marijuana use by children twelve years and older has risen 30%, which is 76% above the national average.
- Among college-age young adults (20–25), "past-month marijuana use" is 50% higher than the average, while past-month use for ages 12–17 is 43% higher.
- Colorado is also first in the nation for the highest percentage of adults who need drug treatment but aren't getting it.

- In 2021, approximately ten years after legalization, Colorado is starting to come to grips with this public health emergency and their legislature began steps to mitigate the negative effects from legalization with the passage of HB1317. This bill was a bipartisan effort, sponsored by the Democratic Speaker of the House and signed by the Democratic Governor. Colorado's new law limits marijuana THC concentrate purchases, adds more labeling requirements, and cracks down on underage medical cannabis relationships with physicians.
- Colorado legislators are moving forward with these risk mitigation measures after warnings by many health experts. One health profession, the Medical Director at the state's largest non-public psychiatric hospital, the Medical Center of Aurora, said the emerging epidemic of marijuana addiction "threatens to swallow the lives of a whole generation of Coloradans."

Vermont
- In 2020, two years after recreational legalization was passed into law, the Vermont Department of Health issued the following statement: "Marijuana use is a significant public health problem in Vermont, and it is getting worse."
- In 2021 the Vermont Medical Society released a resolution to advocate for a number of measures, to include:
1) A prohibition on the advertising, marketing and promotion of marijuana in the state of Vermont.
2) A requirement that all marijuana grown, produced or sold, whether through dispensaries or retail establishments, in the state be less than 15% THC cannabis as there is significant morbidity associated with its use, and as all research in the United States addressing any medical benefit of THC cannabis has been conducted on strains with potency less than or equal to 15% THC cannabis.
3) A requirement that all written and internet advertising of cannabis display up-to-date evidence-based warnings in large typeface which should include the following conditions: psychosis, impaired driving, addiction, suicide attempt, uncontrolled vomiting, and harm to fetus/nursing babies.

- In addition to the somber information provided by Vermont's health agencies and medical care professionals, it has also earn the sad distinction of being the state with the highest rates of youth marijuana use in the U.S.
- With regard to the relationship between marijuana and addiction, a 2021 University of Vermont presentation on childhood mental health cited the following:
- - Approximately 9% of people who use marijuana become dependent.
- - The rate increases to 1 in 6 (17%) of those who start before the age of 18.
- - The risk increases to between 25-50% in daily users.
- - It is likely that 30% of those who currently use marijuana may meet criteria for having a Cannabis Use Disorder
- - 2.8% of 12-17 year-olds have Cannabis Use Disorder.

In addition to the public health crisis happening in these states, which does not get discussed widely enough, legislatures across the country who grapple with this issue are regularly told by marijuana proponents that legalization is inevitable and the public wants it.

Across the U.S. we have 21 states who have legalized, and 29 who have not.

It is noteworthy to recognize that over the past two years there have been five states who have said no to this bad idea; North Dakota, South Dakota, Arkansas, Delaware, and Oklahoma. Oklahoma's recent decision was particularly interesting because voters decisively rejected a recreational legalization ballot measure by over 61% - despite the marijuana lobby outspending the pro-public health groups by millions of dollars.

On a side note – it is important to know that Oklahoma enacted very liberal laws regarding medical marijuana grow, and that state is currently the number one supplier for US black market product. I actually work for the Oklahoma State Department of Emergency Management in the hazard mitigation division, and I would be happy to provide additional detail if requested.

One thing we often hear cited in NH by legalization proponents is the one, tired UNH poll that supposedly reflects public support for legalization. It is important to consider that just as legislators have either been mal-educated on the public health downsides of legalization, or choose to ignore it, so has the public been deprived of an honest evaluation of this issue. At this point it is fair to say that legislators, on both sides of the political aisle, have already failed their constituents with their lack of objectivity and their ability to discuss this honestly with voters.

Consider this last solemn point: In order for the HB629 legalization plan to make a substantial profit off marijuana, our state is going to have to sell *a lot* of it to its citizens. Moving this drug into the hands of the highest number of consumers *is* the business plan, which is objectively shocking from a public health standpoint. And based off the data from other legalized states, it is clear that this becomes an issue for our youngest, most vulnerable citizens.

There used to be a time when adults did what was best for their community's children, but with HB639 we are considering putting the children at risk to do whatever adults want. I respectfully request that the members of the Senate hold the line on this important issue and vote down HB639.

Resource links:

Colorado:
https://legiscan.com/CO/bill/HB1317/2021

https://www.hudson.org/technology/the-colorado-experiment-legalized-marijuana-s-impact-in-colorado

https://www.cpr.org/2019/09/17/the-rate-of-teen-suicide-in-colorado-increased-by-58-percent-in-3-years-making-it-the-cause-of-1-in-5-adolescent-deaths/

Vermont:
https://www.med.uvm.edu/docs/echo_cannabis_2021_03_18/ahec-documents/echo_cannabis_2021_03_18.pdf?sfvrsn=1a9e98a6_2

https://ccb.vermont.gov/sites/ccb/files/2021-11/2021%20VMS%20Cannabis%20Resolution%20-%20As%20Passed%20by%20Board.pdf

https://www.healthvermont.gov/sites/default/files/documents/pdf/ADAP_Data_Brief_Marijuana.pdf

Additional Resources:

2020-2021 report compiled by the policy organization Smart Approaches to Marijuana which has been reviewed by many researchers, to include those from the University of Colorado in Denver, Harvard Medical School, Boston Children's Hospital, University of Connecticut, Yale University, and the University of Kansas.
https://learnaboutsam.org/wp-content/uploads/2020/12/2020-Impact-Report1.pdf

https://www.cnn.com/2022/06/27/health/marijuana-emergencies-hospitalization-study-wellness/index.html

Emergency Department Treatment of Cannabinoid Hyperemesis Syndrome: A Review:
https://pubmed.ncbi.nlm.nih.gov/28953512/

Cannabinoid Hyperemesis Syndrome Fatalities:
https://pubmed.ncbi.nlm.nih.gov/29768651/

Cannabinoid Hyperemesis Syndrome:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6690288/

The Colorado Experiment:
https://www.hudson.org/technology/the-colorado-experiment-legalized-marijuana-s-impact-in-colorado

https://www.nbcnews.com/health/health-news/er-visits-linked-marijuana-rose-colorado-hospital-after-legalization-study-n987161

All States
One issue that all states are dealing with following the legalization of medical and/or recreational marijuana law is the emergence of a relatively new syndrome, which is Cannabinoid Hyperemesis Syndrome, a severe vomiting condition associated with heavy cannabis use.
- A retrospective analysis of patients who were treated for this syndrome in a variety of locations across the US estimated the cost per patient to be just over $76,000 per hospital visit.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6339733/

Heroin use is part of a larger substance abuse problem.

Nearly all people who used heroin also used at least 1 other drug.

Most used at least 3 other drugs.

Heroin is a highly addictive opioid drug with a high risk of overdose and **death** for users.

People who are addicted to...



ALCOHOL

are

2x



MARIJUANA

are

3x



COCAINE

are

15x



Rx OPIOID PAINKILLERS

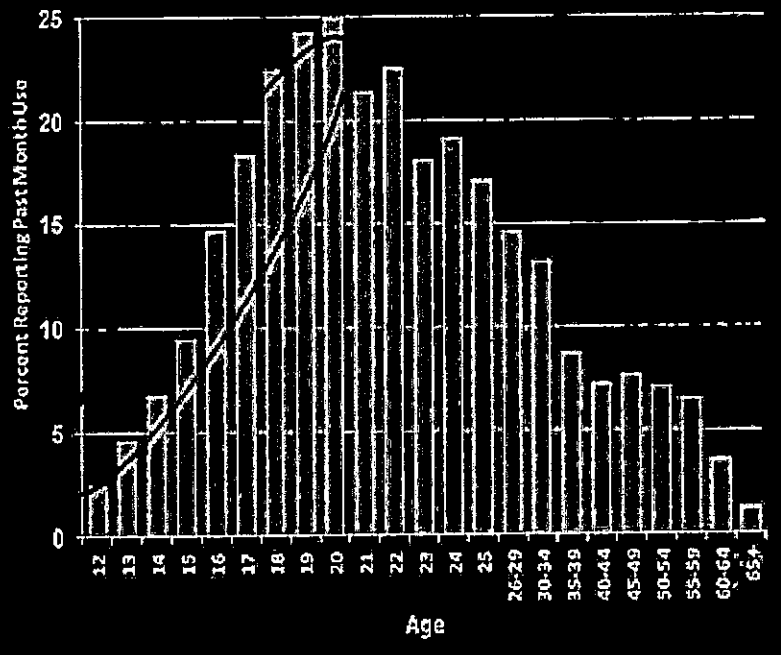
are

40x

...more likely to be addicted to heroin.

SOURCE: National Survey on Drug Use and Health (NSDUH), 2011-2013.

Why Prevention?
Escalation of Drug Use During the Teen Years



Source: SAMHSA, *2012 National Survey on Drug Use and Health* (September 2013).

According to the National Center on Addiction and Substance Abuse (CASA) 9 out of 10 individuals who struggle with addiction began drinking, smoking and using other drugs before they turned 18 years of age.

If we can prevent youth substance abuse, we can prevent addiction.

www.cadyinc.org

Linwood • Newfound • Pemi-Baker

CADY

Communities for Alcohol- and Drug-Free Youth

The Scary Truth About What's Hurting Our Kids



Know the risks. Take Action. Protect our children.

DAILY MARIJUANA USERS UNDER AGE 17:

- Less likely to graduate from high school
- More likely to use other drugs
- More likely to develop addiction
- More likely to attempt suicide

Lancet Journal of Psychiatry (2014)

Focus on Prevention

Silence isn't Golden— It's PERMISSION!

Parents are the most powerful influence on their teens when it comes to drug use.

Not friends. Not school. YOU.

The truth is that kids who learn a lot about the risks of drugs from their parents are up to 50 percent less likely to use them.
(Partnership to End Addiction)

Open and honest conversations are some of the most powerful tools parents can use to connect with their kids. **Start talking, they are listening!**

U.S. SURGEON GENERAL ADVISORY- 2019

No amount of marijuana use during adolescence is known to be safe. Recent increases in access to marijuana and in its potency, along with misperceptions of safety of marijuana endangers our most precious resource, our nation's youth.

The Scary Truth:

1 in 3 high school students in our region report using marijuana.
(CDC: Central NH Youth Risk Behavior Survey, 2019)

CADY
Communities for Alcohol- and Drug-Free Youth

To access your FREE Marijuana Talk Kit, visit CADYINC.ORG



The Scary Truth About What's Hurting Our Kids

Youth in our region are higher in sadness, hopelessness and suicidal ideation than statewide averages.

(CDC: Central NH Youth Risk Behavior Survey, 2019)

MARIJUANA USE IS CONSISTENTLY LINKED TO POOR MENTAL HEALTH OUTCOMES.

(JAMA Psychiatry, 2020)

HIGH POTENCY MARIJUANA USE → **GREATER RISK**



6.2 million
daily marijuana users in 2009



13.8 MILLION
DAILY MARIJUANA USERS IN 2019

(SAMHSA)



(JAMA Psychiatry, 2020)

MARIJUANA USE IN ADOLESCENCE AND THE USE OF

(JAMA Psychiatry, 2020)

FOCUS ON PREVENTION

Know the Five Signs

Learn the 5 signs that may mean someone needs help at: giveanhour.org

Personality Changes
Agitation
Acting Withdrawn
Poor Self-Care
Hopelessness

Mental Health Emergency Services Available

Lakes Region Mental Health Center

603-524-1100

Marijuana: What You Need to Know to Help Protect Children, Teens and Young Adults

Get Your FREE Copy!

To Help Kids Learn, Grow, and Thrive visit: cadyinc.org

CADY
Communities for Alcohol- and Drug-Free Youth

HB639- LEGALIZATION AN REGULATION OF CANNABIS

Opposition Testimony By: Former State Rep Pat Abrami

BACKGROUND

-Chaired the Commission to Study the Legalization, Regulation, and Taxation of Marijuana over 13 months ending with a Nov. 1, 2018 Report

-Sen. Gannon one of 17 members from both sides of the issue

-The Commision took no position on the issue but made 54 recommendations based on testimony from the eight original states to legalize and other experts of what NH legalization should look like. **MOST BUT NOT ALL OF OUR RECOMMENDATIONS ARE IN THIS BILL**

-Chairing this commission gave me more reason to oppose legalization

ONE SUGGESTED AMENDMENT

Page 39 lines 24-30 reflect an Opt-Out provision for municipalities. If this Committee feels there is any chance of this bill passing on the Senate floor, please amend this to an **OPT-In provision.**

WHY THE PRO ARGUMENTS ARE QUESTIONABLE

1. **NH is surrounded by states that have legalized-** At the end of 2022 only 20 states have legalized with Maryland coming in July, that means 29 states have not legalized. Well over a majority of states are still against. **We are surrounded by states with income and sales taxes, but we aren't rushing to do the same in NH.** AR, SD, and ND all voted against cannabis in 2022.
2. **NH will get rid of the black market-** Testimonials from states that have legalized indicated that the black market may be slowed, **but it never totally disappears.**

3. **Cannabis is less harmful than alcohol-** Less harmful does not mean it isn't harmful:

a. NH cannabis addiction councilors attest to its addiction potential.

b. Marijuana use disorder at 30%-recent study.

c. Brain cognitive development issue with adolescents in early users-studies show.

d. Paranoia leading to schizophrenia among other ailments

4. **Societal normalization of Cannabis will have no impact of NH Children and Adolescents-** July 2020 U. of Washinton Study quote, **"Marijuana legalization and normalization is reversing decades of declining youth marijuana use".**

5. **Cannabis is not as potent as hard drugs-**

a. Potency of loose flower now 15-30% THC. **Biologists are engineering the plants.**

b. Concentrates made into waxes now 94% THC. **When vaporized becomes an instant high.**

c. Can regulate the milligrams of THC per serving or package but **cannot regulate how much is consumed.**

6. **NH will benefit from an infusion of cannabis revenue**

a. The eight original states to legalize said **do not legalize for the revenue.**

b. This bill calls for a **12.5% tax at the wholesale level** (at the cultivator level if direct sales to retail or at the manufacturer level when sold to retailers) which **is a low tax rate by comparison to other states.**

c. Coming out of the House no official estimates were made. Based upon the NH Marijuana Commission methodology **my estimate is $26.5 million per year once fully operational.** This means per page 21 of the bill, assuming a cost of operation to the Liquor and Cannabis Commission of **$4 Million** the net revenue is allocated:

$ 0.1M Dept of Safety for data capture and analysis

$11.2M Education Trust Fund to Reduce Property taxes **(reduces SWEPT taxes of $363M by only 3% annually which will not be noticed)**

$ 6.7M Reduction of the unfunded pension liability **(with the unfunded pension liability at $5,700,000,000 this is a reduction of only .118% annually all things being equal) (850 years to get to zero)**

$ 2.3M Substance abuse prevention and recovery fund.

$ 1.1M Public safety agencies.

$ 1.1M DHHS for children's behavioral health services.

7. **Cannabis should be legalized since the polls show 71% of NH voting age citizens support legalization-**

a. First eight states that legalized were by referendum votes of the people, **even though their legislative bodies through the legislative process may have known or knew better.**

b. The question for this legislature is how many NH citizens know that the black market can only be reduced and not eliminated; know the health effects of cannabis; know the impacts of normalization on our children; understand the potency of today's cannabis; and understand that cannabis revenues will be minimal. **I think if they did the poll numbers would be much lower.**

Please vote no on HB639.

4/20/2023

HB 639 Discussion With Oliver Salmon, DO, FAAP

Hello. I am a pediatrician and the medical director from both Plymouth Pediatric and Adolescent Medicine, as well as Speare Memorial Hospital, both of which are in Plymouth, NH.

I have concerns with THC-containing products becoming more available in our state. I have specific medical experience with high-potency THC products. Our small community hospital has had at least 3 admissions for toddlers overdosing on high-potency THC products in need of support and monitoring overnight to help with such things as their low shallow breathing, with a risk of stopping breathing overnight. This seems to be a new phenomenon to our small community that started after the state of New Hampshire expanded the availability of marijuana with the legalization of medical marijuana, that started to become available in 2016.

I have concerns that increasing the availability of THC-containing products in the state of New Hampshire will further increase the unintended overdoses of these products by toddlers and young children. I also have concerns that increasing availability will increase the use of THC-containing products, while decreasing its perceived dangers, by older children and teenagers who are in the midst of adolescence, which is when most people build their lifelong habits of how they will cope with stress and anxiety, whether these habits be healthy ones or not.

My concerns appear to be supported by the evidence. States that legalize recreational cannabis products end up with more young children accidentally overdosing on these products in their emergency rooms, pediatric medical floors, and pediatric intensive care units. States that legalize recreational cannabis products end up with more teenagers that use marijuana recreationally or as a coping mechanism for life stressors or sleep difficulties. States that legalize recreational cannabis products end up with teenagers perceiving cannabis as more safe. This is all despite their state's intention to prevent all of this from happening. Making cannabis products more available through legislation appears to lead to increased cannabis issues in children of nearly all ages.

Do you want our state to have more children suffering from having too much cannabis? A systematic review of 3,582 children who presented to hospital emergency rooms with concerns for unintentionally consuming cannabis products found that 18 % were managed in a pediatric intensive care unit and that 6 % needed to be intubated (meaning a tube had to go down their throat while a ventilator machine controlled their breathing until the child was strong enough to be able to breath on their own)[1].

The backside of this sheet contains my proposal.

[1] J Pediatr. 2017 Nov;190:142-152. doi: 10.1016/j.jpeds.2017.07.005. Epub 2017 Sep 6. Unintentional Cannabis Ingestion in Children: A Systematic Review. John R Richards, Nishelle E Smith, Aimee K Moulin.

Proposed Changes to the Bill

I propose that you do not move forward with House Bill 639 as is, in order to keep our children healthy and safe. Instead, I propose that we modify this law to become one that restricts the availability of high concentration THC products, and THC-containing products that are in formats that are appealing to children. Many of these concerning products are currently available in New Hampshire at current cannabis dispensaries. I propose that you:

1) Keep and slightly modify the text within the 2 sections listed below
2) Eliminate the remaining text of the current bill
3) Add in the text that you feel would be needed for the purposes of definitions, clarifications, and appropriate penalties for disobeying the new proposed bill, such as penalties for current dispensaries if they continue to have THC products with concentrations in excess of the new possession limit and/or THC-containing products in formulations that are appealing to young children, neither of which would be medically necessary for the current patients who have THC prescriptions under current New Hampshire state law.

Sections of the current bill that I propose keeping and, in the second instance, slightly modifying:

§(318-F:1)(XX)

"Possession limit" means:

(a) Four ounces of cannabis in plant form; and

(b) Twenty grams of concentrated cannabis products, which includes hashish and pre-filled cartridges of cannabis extracts intended for vaporization;

(c) Cannabis products ~~other than concentrated cannabis products~~ containing no more than 2,000 milligrams of THC;

§(318-F:7)(I)(o)(4)

(o) Packaging, product manufacturing, and labeling requirements for cannabis and cannabis products, including:

(1) Mandating the disclosure of the THC content of each product;

(2) Requirements to ensure cannabis products and their packaging are not designed to appeal to or be attractive to minors, including providing that they cannot be in the shape of cartoons, toys, animals, or people; and

(3) Establishing the maximum amount of THC that may be included in each cannabis product serving as 20 milligrams, except that the commission may change this amount through rulemaking;

(4) Prohibiting flavors and designs of cannabis-infused beverages, oils, and edibles that resemble or imitate candy flavors ~~that are marketed to minors~~and any sweet food that may appeal to minors

(5) Warnings, including but not limited to, those described in RSA 318F:16;

(6) A requirement for any label, an for certain products where appropriate, to include a standard, recognizable symbol that a product contains cannabis or THC; and

(7) Potency limits for cannabis products.

(p) Health and safety rules and standards for the cultivation of cannabis and manufacture of cannabis products, including:

(1) Prohibitions on additives to products that are toxic, misleading to consumers, or designed to make the product more appealing to children;

(2) Safety standards regulating the manufacture of cannabis extracts and concentrated cannabis products; and

(3) A prohibition on the inclusion of nicotine and other additives to cannabis products that are designed to make the product more addictive or more intoxicating.

Amy Turncliff, PhD
Neuroscientist & Public Health Advocate
Testimony Opposing HB639
April 20, 2023

Dear Chair Carson, Vice-Chair Gannon, and Members of the New Hampshire Senate Judiciary Committee,

Thank you for the opportunity to provide testimony, in opposition to HB639 – "AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor." My name is Amy Turncliff. I hold a PhD in neuroscience from the University of North Carolina at Chapel Hill and completed post-doctoral training with Dr. Bertha Madras at Harvard Medical School. My area of expertise is mental health and substance use disorders, with a focus on the impact of cannabis use and cannabis policy on adolescent and young adult behavioral health. Since 2010, I have used my knowledge and expertise to build coalitions and to advocate for policies that prioritize youth substance use prevention and behavioral health promotion at the local, regional, and state level. I have testified many times over the past 8 years, in my home state of Massachusetts, to educate policy makers on the well-established body of scientific literature showing serious risk of health harms from marijuana, specifically the main psychoactive component THC, and the worsening of those health harms caused by marijuana legalization and commercialization. As the New Hampshire legislature deliberates the legalization and commercialization of marijuana, New Hampshire's drug free communities like CADY and the Raymond Coalition for Youth have asked me to help inform your hearing as your neighbor to the south, where as you know, marijuana has been legal since November 2016. Protecting public health, especially the health and safety of New Hampshire's young people is not my only motivation for being here. I am a 4th generation property owner in NH, as I am now co-owner of a beautiful rustic cabin on Millen Pond in Washington, NH. A property that was bought by my great-grandparents in the 1940s. My children, 16, 14, and 11, are now the 5th generation to enjoy summers on tranquil Millen Pond. My heart is truly in NH, with the White Mountains being my family's favorite playground in all seasons, so much so, that my husband and I purchased a property in Waterville Valley, 5 years ago. So, this is not only professional, but is also very personal for me.

While I understand that many believe that legalization and regulation of cannabis will reduce cannabis-related harms of all kind, I can tell you that marijuana legalization and

commercialization comes with MANY unintended consequences, that range from merely annoying to significant health harms. Marijuana legalization changes the look and feel of states, including Massachusetts, in a negative way. Although public consumption is a civil offense, there is inevitably more public consumption and the smell of high THC weed (also known as "skunk") permeates, as marijuana use becomes more normalized with legalization and commercialization. More public health and safety harm, not less, is a consequence of marijuana legalization and commercialization in every state that has chosen to loosen marijuana policy. Based on my experience and expertise, I outline several concerns below.

Marijuana, specifically THC, has significant negative impacts for many users, including adults but particularly for adolescents and young adults whose brains are still maturing until the age of 25 or even 30yrs old. Adult behavior influences the behavior of children and adolescents; a recent study showed that maternal cannabis use during a child's lifetime is associated with earlier initiation of use by that child.[1] Based on public health and prevention science, we know that access and availability, perception of harm, perception of peer and parental disapproval, and social norms all contribute to youth decisions about substance use. It is well established in the scientific literature that adolescents and young adults who regularly use marijuana are at increased risk for addiction (to marijuana and other substances including opioids), serious mental health harms (e.g., cannabis-induced psychosis, schizophrenia, bipolar disorder, and suicidal thoughts and attempts), cannabinoid hyperemesis syndrome (CHS), negative impacts on cognition, and poor academic performance (including decreased student engagement, student success, and increased school failure at the high school and college level).[2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18] The high THC products, defined as greater than 10% THC, that are appealing to young people and make up the majority of the commercial market, pose significantly increased risks to physical and mental health.

It is now well accepted that THC can induce acute psychosis and is an independent risk factor for chronic psychotic disorders such as schizophrenia. This association meets Bradford Hill criteria for causation. Centuries of case-based evidence, and dozens of peer-reviewed scientific publications, show that THC can induce acute episodes of psychosis in a dose-dependent manner, and newer studies show that the conversion rate from cannabis-induced psychosis to

schizophrenia or bipolar disorder is higher than for any other drug-induced psychosis, at nearly 50%.[5] In human laboratory studies, concerning healthy adults being administered THC, it has been approximated that 35–50% will experience psychotic symptoms. Further, a recent analysis by leaders in the cannabis-psychosis field, found that if high-potency cannabis, defined as >10% THC, were no longer available, 50% of cases of first-episode psychosis could be prevented in Amsterdam.[6] Independent evidence comes from Portugal which has registered a steady increase in the rate of hospital admissions for psychotic disorders with comorbid cannabis use disorder (CUD).[7] This is consistent with a 2021 paper citing findings from Denmark that include: "The increase in [the incidence of] cannabis-induced psychosis follows both the increase in the level of THC in cannabis, and the increase in cannabis use. The change in diagnostic practice does not appear to explain the increase in incidence of cannabis-induced psychosis."[8] Both countries have seen a rise in the potency of available cannabis over the same period.

Recent student survey data collected in Massachusetts show that nearly 1 in 4 (23%) surveyed high school students, and nearly 1 in 2 (43%) surveyed middle school students, who report ever having used cannabis reported experiencing cannabis-induced hallucinations, at least "from time to time" (MGH CAM school-based student survey, 2022). Nearly half of students (45%) surveyed in Hampshire County (Western) Massachusetts who reported using cannabis said the cannabis they used originated from a licensed marijuana dispensary. Further, data from this same MA county, make the case that cannabis commercialization is tied to higher rates of youth use. It compares teen use rates in 2015 (pre-legalization) to those in subsequent years, after multiple retailers opened in some municipalities but not others and found that there was a 60% increase in high schoolers' past 30 day cannabis use in a town where multiple retailers opened. A Massachusetts epidemiologist recently said about these data that "These results are not unique to Hampshire County, MA. Systematic, published reviews of the scientific evidence to date show that adolescent cannabis use increases following legalization in several geographical jurisdictions…Commercialization increases availability of cannabis products, and the shifting norms and ease of access that results from retailer openings has a lasting influence on our youth and their decision-making regarding cannabis use."

Consistent with the science, in testimony to the MA Legislative Joint Committee on Cannabis Policy, a clinical psychologist affiliated with Boston Medical Center, Boston University, and Harvard Medical School said…"I see many patients who have developed psychosis after using high potency THC products. The average age that my patients begin using THC is 15, and the average age that they develop psychosis is 21. Earlier age of first use, frequent use, and higher THC concentration are well known risk factors for developing psychosis. While some of my patients are "lucky" in that they are able to stop using THC and eventually recover from their psychotic episode, most are not so lucky. For some, the psychosis does not go away even though they stop using marijuana (i.e., the changes in brain function are irreversible). For others, they are addicted to THC and cannot abstain from using, and thus cannot recover from their psychoses. Such histories are typical of a larger and larger proportion of our schizophrenia patients. A growing body of research demonstrates that these individuals are NOT necessarily people who would have developed schizophrenia without using marijuana"…she goes on to say… "I love my job, but I hope you never need to bring anyone in your family to my clinic because they have developed schizophrenia."

At a time when many educators, clinicians, parents, and communities are having conversations about meeting the complex social, emotional, and mental health needs of our nation's youth, it is important to think critically about legalizing another addictive drug that has been shown to have significant acute and lasting effects on the development of adolescent brains. With the mental health of New Hampshire's youth being a major public health concern, it is a high priority to consider the impact of marijuana legalization on the future well-being of youth and young adults. Indeed, a recent article in the Wall Street Journal was titled "Legal Weed Feeds the Teen Mental-Health Crisis". The science supports this statement. However, many who advocate for the legalization of marijuana indicate that a "regulated market" will reduce access and availability to youth. I can confidently say that this is not the case. Commercialization of marijuana brings more high THC products that are appealing to young people and increases the amount of product that can, and will, be diverted to youth and young adults.

I am sure that youth-focused stakeholders (parents and guardians, mothers, fathers, aunts, uncles, grandparents, foster parents, clinicians, educators, civic leaders, clergy members, and many

others) working hard to raise healthy children in New Hampshire communities, want fewer drugs with addiction potential and reduced risk of other behavioral health issues in their communities, not more. Where there is more marijuana commercialization, more people use the drug, and more youth use the drug.[16,17,18]

I have no doubt that legalizing and commercializing recreational marijuana in New Hampshire would have serious and deleterious unintended consequences that will negatively impact many young people in this beautiful state. Please don't be fooled by an industry that uses age-old tactics to hide the science that shows the very serious consequences of legalizing and commercializing today's high THC marijuana. Please oppose HB639.

Thank you for your time.
Sincerely,

Amy KJ Turncliff, PhD
Neuroscientist & Public Health Advocate
Cell: 617-784-9404

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TESTIMONY of Kandyce Tucker M.A

April 20, 2023 | In opposition of HB639

My name is Kandyce Tucker and I am the Program and Coalition Coordinator for the Newfound Coalition for Youth and have been in the prevention field for 5 years. I am here today to ask you to vote no on HB 639. I want to start off by thanking you for taking the time to hear our testimonies. I know there are a lot of data points and information being thrown at you and sometimes the points can be contradictory. I am here to share a more personal story about how Marijuana use has affected my life.

My dad started using Marijuana at the age of 13 in the late 70s when THC levels were only 2-3%. From there he began misusing alcohol and now at the age of 61 his use has progressed beyond alcohol and Marijuana. Growing up I saw the damage substance misuse caused my dad and others in my life.

Addiction runs very deep and is generational throughout my family. I haven't become a victim of substance use disorder because of my wonderful grandmother who took the time to educate me about the dangers and long term effects I could face if I ever partook in substance use. Many of our youth today aren't as lucky as I was and don't have knowledgeable adults who are going to take the time to educate them about their family history and the dangers youth Marijuana use can cause.

"Marijuana use might have permanent effects on the developing brain when use begins in adolescence, especially with regular or heavy use" (CDC). "Between 1995 and 2015 there has been a 212% increase in THC content in the marijuana flower" (NIH). Initiation of marijuana use before the age of 18 is also a predictor of opioid use disorder in adulthood" (SAMHSA).

My dad was trying to cope with his mental health illness with his marijuana use and instead significantly increased them and triggered his substance use disorder. My dad isn't a bad person, he made a series of high risk choices and didn't understand the outcomes that would follow. Just like the youth of today that are self medicating with high potency THC to deal with their increased mental health illnesses, they are actually worsening their long term mental health outcomes.

Voting to legalize Mraijuana in New Hampshire is sending our youth the message that it is okay to use Marijuana because some doctors, lawmakers and trusted adults in their lives are saying it is okay. Because of my grandmother's guidance and education about my increased risk of addiction as a young person I am sitting before you today as a prevention professional, but the outcome of my life could have been much different. I am asking you to be that adult for the young people of New Hampshire and vote ITL on HB 639. Thank you!

Thank you.

Kandyce Tucker, M.A.

Omar Shah
Email address: omar.shah@childrens.harvard.edu

Today I am submitting a testimony to oppose bill HB 639-FN-A
I am an adult, child and adolescent psychiatrist. I am currently completing an addiction medicine fellowship at Boston Children's Hospital/Harvard Medical School. In this capacity, I frequently take care of adolescents with cannabis use disorders. In fact, in our program, more than 90% of teens who seek treatment for a substance use disorder are diagnosed with a cannabis use disorder, often in combination with other problems such as opioid addiction. I am familiar with the NH legislature as I served as the NH legislative liaison for the NH psychiatric society during my child psych training at Dartmouth, which ended in July 2022. New Hampshire's drug prevention communities like CADY and the Raymond Coalition for Youth asked me to help inform your deliberations.

THC is an addictive substance found in cannabis that is particularly harmful to brain development during the teen years. While many states have legalized cannabis products, THC remains illegal by federal law. Therefore, the federal government does not provide support with regulation or oversight of THC based products, as it does for alcohol and nicotine. Regulation of addictive products is complex, and states including NH, lack the infrastructure for doing so appropriately, at this time. As a result, state-based THC legalization exposes the population of the state to public health harms.

The THC content in cannabis products is increasing in association with legalization as manufacturers aim to produce more attractive (and consequently more addictive) products. The cannabis available today has a content of 20-25% THC or even higher. By contrast, the cannabis available three decades ago contained less than 5 % THC. Hence, today's marijuana is drastically different and more potent. As THC concentration increases, side effects increase. This puts a particular burden on adolescents and young adults, who for developmental reasons are most attracted to cannabis use and also most vulnerable to side effects. In MA where I practice, psychotic symptoms, cannabis hyperemesis syndrome, and EVALI (e cigarette and vaping associated lung injury) have become increasingly common. In fact, these conditions were almost unheard of a decade ago. I personally have dealt with several patients who have experienced these conditions due to cannabis use.

In the past decade, many states legalized the recreational use of marijuana for adults 21 and older. While a young person's use of marijuana *remains illegal in all states*, the new laws increase the availability of marijuana overall. This availability makes the drug much more likely to land in the hands of teens. Furthermore, legalization of cannabis makes it confusing for teenagers and reduces the perceived risks of cannabis use. One of the most common questions I get asked by my patients is "If marijuana is so bad for you, why is it becoming legal to use everywhere?"

Legalization of cannabis for adults increases risk factors for teen cannabis use by increasing parental substance use, and favorable parental attitudes towards the cannabis while decreasing protective factors like parental disapproval of substance use.

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Missouri Medicine
The Journal of the Missouri State Medical Association - Since 1904

Mo Med. 2018 May-Jun; 115(3): 191–193.

PMCID: PMC6140166
PMID: 30228716

Why Marijuana Will Not Fix the Opioid Epidemic

Kenneth Finn, MD✉

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Currently, there is no widely available or accepted medical literature showing any benefit for pain with dispensary cannabis in common pain conditions.

Marijuana has been used for reported medical purposes for thousands of years when the plant at that time had THC content of 0.5–3%. Currently, the most common reported medical use is for pain. As of this writing there are 30 states and the District of Columbia have some form of legalized marijuana, with eight states having legalized for recreational use.

The United States is currently in the grips of an opioid epidemic which has been growing over the last 20 years and began with "pain" being termed the "5th vital sign." At the time, it was reported that people in pain did not become addicted to opioids, and the number of opioid prescriptions started to increase over time, followed by an increase in opioid overdose deaths.[1]

There has been a lot of discussion about how the use of cannabis will help curb the opioid epidemic.[2] It has been reported that medical

19. Olfson M. Cannabis Use and Risk of Prescription Opioid Use Disorder in the United States. *American Journal of Psychiatry.* 2018;175(1):47–53. [PMC free article] [PubMed] [Google Scholar]

20. DiBenedetto DJ. The Association Between Cannabis Use and Aberrant Behaviors During Chronic Opioid Therapy for Chronic Pain. *Pain Medicine.* 2017:1–12. 0. [PubMed] [Google Scholar]

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24. National Bureau of Economic Research. Feb, 2018. [Google Scholar]

Articles from Missouri Medicine are provided here courtesy of **Missouri State Medical Association**

OTHER FORMATS

- PubReader

LEGALIZATION AND REGULATION OF CANNABIS

SENATE JUDICIARY COMMITTEE

HB 639-FN-A—LEGALIZATION AND REGULATION OF CANNABIS

April 20, 2023

DEAR SENATOR CARSON AND MEMBERS OF THE COMMITTEE:

I. **Opposition**: The NH Association of Chiefs of Police are in opposition to HB 639 because it would legalize and commercialize the use of an addictive substance based on the following facts resulting in EXCESSIVE COSTS to the citizens of NH:

1. **Public Health Risk:** Countless peer reviewed studies by acclaimed medical, behavioral and other research scientists have proven that chronic use of cannabis is harmful to humans and especially youth both from a medical perspective as well as behavioral health.
    - **FACT-Medical and Psychiatric and Behavioral Therapists OPPOSE legalization**: The American Academy of Pediatrics (NH), Catholic Medical Center, NH Community Behavioral Health Association, NH Public Health Association and others OPPOSE legalization of cannabis. Who do you trust more, your medical and behavioral professional or a corporation funded program to promote the sale of cannabis?
    - **FACT-Health risks directly associated with cannabis use:** January 2023 – Bedford, NH: Two juveniles transported for medical treatment after consuming cannabis infused edibles; Bedford Police report increase numbers of medical treatment responses in 2022 directly attributable to cannabis use; Scientific-peer reviewed fact-based studies prove cannabis use by youth affects neurological development.
    - **FACT -Cognitive Disorders Associated with Cannabis Use:** Research found an association between the use of cannabinoids containing THC (the active ingredient in marijuana) and thinking and perception disorders in people over 50. [American Medical Assoc.]
    - **FACT-Cannabis use during pregnancy is HARMFUL:** Edited by Tracy Bale, University of Maryland School of Medicine, Baltimore, MD, and accepted by Editorial Board Member September 27, 2021 (received for review March 30, 2021)
    - **FACT-Cannabis use leads to behavioral disorders:** Journal of Public Health 2019: Evidence for an association between cannabis and psychosis has been documented in literature in many forms including experimental studies, epidemiological data, and case series. The association has implications for psychotic outcomes ranging from mild to severe and occurring over minutes to years.
    - **FACT-Cannabis is Addictive:** "When people use cannabis regularly – such as daily or nearly daily – parts of the brain become reliant on cannabinoids, the psychoactive chemicals in cannabis. Symptoms can include irritability, depressed mood, decreased appetite, sleep difficulties, a desire or craving to use cannabis, restlessness, anxiety, increased aggression, headaches, shakiness, nausea, increased anger, strange dreams,

stomach pain and sweating." See https://news.yahoo.com/weed-withdrawal-more-half-people-200735378.html and https://onlinelibrary.wiley.com/doi/10.1111/add.15370

- **FACT-Cannabis is associated with increased child abuse**: Texas: Marijuana was the substance most identified as actively being used by the perpetrator (85 cases) in child abuse and neglect-related **fatalities.**
- **FACT-Cannabis use associated with Suicide:** 236 suicides in Colorado with marijuana present, representing a 125 percent increase. All told, marijuana was present in 29 percent of all suicides where toxicology was performed, a 107 percent increase.

2. **Highway Safety:** In every state where cannabis has been legalized the number of collisions and fatalities directly related to operating a motor vehicle while impaired have increased.
   - **FACT – Crashes Involving Cannabis Increased Last Year in Colorado** – News post dated January 23, 2023, The Denver Post reports, "According to the Colorado Department of Transportation, an estimated 745 people died in traffic crashes" in that state last year. During a Monday news conference, Colorado State Patrol Chief Matthew Packard said, ". . . crashes involving cannabis increased 51% in Colorado" in 2022.
   - **FACT – Legalization of Cannabis Leads to Increased Highway Death:** Colorado: News post dated September 10, 2021: "(Alexandria, VA) - Today, a new Colorado report **marijuana-impaired driving is continuing to have a catastrophic impact on Colorado. Since legalization, traffic deaths in which drivers tested positive for marijuana increased 138 percent** while all Colorado traffic deaths increased 29 percent.
   - **FACT – Cannabis use leads to increased collisions:** Department of Community Health and Epidemiology, Dalhousie University, Halifax, Nova Scotia, Canada; "Acute cannabis consumption is associated with an increased risk of a motor vehicle crash, especially for fatal collisions." NH has NO per se limit for cannabis to prove impaired driving in NH. In Bedford NH two (2) fatal collisions occurred with the at fault operator having significant quantity of THC in their blood yet we could not charge them with DUI.
   - **FACT-Cannabis use leads to More Collisions:** January 14, 2020-Source: McLean Hospital Summary: Researchers have discovered that Cannabis users had more accidents, drove at higher speeds, and drove through more red lights than non-users.
   - **FACT – Legalization led to more fatal crashed in Washington State:** The share of drivers who, after a fatal crash, tested positive for active THC – the drug's main psychoactive ingredient – has **doubled since the state legalized marijuana** in December 2012.
   - **FACT – Legalization in VT leads to increased impaired driving arrests**: Vermont Sees Doubled Arrests For Driving While High The AP (12/25, Rathke) reports, "In the first year that recreational marijuana was legal in Vermont, the number of drivers arrested by state police for impaired driving who had THC in their systems **more than doubled.**
   - **FACT – Legalization leads to increased DUI in Canada:** Quebec pot arrests behind the wheel up 54% since legalization Montreal Gazette Publishing date: OCT 17, 2019 **Sûreté du Québec says cannabis is the most commonly detected drug in its traffic stops**. One year after the legalization of recreational use of cannabis in Canada, the black market for the drug — as well as its use behind the wheel — continues to keep Quebec police forces busy."
   - **FACT – NH does not have the capacity to handle the increase in DUI resulting from legalization as proposed in this bill.**

- **FACT – MASS Trooper Killed by Driver high on Marijuana:** Trooper Thomas Clardy the 44-year-old state trooper who died on March 16, 2016, when his cruiser was struck by an impaired driver on the Massachusetts Turnpike in Charlton. Prosecutors said the driver who struck Clardy's cruiser, David Njuguna, was speeding and high on marijuana at the time of the crash."
- **FACT – NH HAS NO THRESHOLD LIMIT IN LAW PERTAINING TO THC THAT WOULD ALLOW FOR ENFORCEMENT OF DUI FOR IMPAIRMENT BY MARIJUANA IN NH-States that commercialized marijuana passed laws that established per se limits on the amount of marijuana for operators of motor vehicles-we have no such law in NH and HB 639 DOES NOT ADDRESS THIS ISSUE.**

3. **Increased Addiction and Disorder:** In every state where the use of cannabis has been legalized it has led to an **increase in cannabis use by youth and adults** and it has led to a corresponding increase in treatment for chronic marijuana use disorder and related behavioral disorders associated with chronic use of cannabis.
   - **FACT-Legalization of Cannabis leads to increased use by adolescents:** The 2020 release of the National Survey on Drug Use and Health — the gold standard of youth use data — found **double-digit increases in past-year marijuana use amongst 12–17-year-olds in several legal states in California, Nevada, and Oregon since 2017.** Oregon: UP 15.4% Nevada: UP 17.4% California: UP 14.5% Furthermore, the NSDUH data also shows us that **the rate of past-month and past-year marijuana use among 12-17-year-olds in states where marijuana is legal is 8% higher than in states where the substance remains illegal.**
   - **FACT-States that legalized cannabis see increased cannabis use disorder:** NSDUH data from 2008 to 2016 found the prevalence **of past-year Cannabis Use Disorder among those 12-17 saw a 25% greater increase in states where marijuana was "legalized"** versus states where it remained illegal.
   - **FACT- Cannabis Vaping Results in Increased Risk for Adolescents:** JAMA Pediatrics. 2022;176(1):42-51. doi:10.1001/jamapediatrics.2021.4102 Findings lifetime prevalence of cannabis vaping doubled from 2013 to 2020 (6.1% to 13.6%), past 12-month use doubled from 2017 to 2020 (7.2% to 13.2%), and the 30-day prevalence of cannabis vaping increased 7-fold from 2013 to 2020 (1.6% to 8.4%).
   - **FACT-Cannabis use amongst 8th, 10th and 12th graders EXCEEDS ALCOHOL USE**
   - **FACT – 28NOV2022: (Alexandria, VA)** --- A comprehensive study based on two national, large datasets by **Temple University** researchers showed that **youth marijuana use increases after recreational legalization.** The **study will be published in the Addictive Behaviors journal in March 2023. The study found** that, after legalization:
     - 1. Adolescent and young adult past-month cannabis use prevalence increased;
     - 2. Among adolescents and young adults, the association of lower perception of risk of harm with higher cannabis use prevalence was strengthened;
     - 3. Among young adults, an association of higher cannabis use prevalence with lower Cannabis Use Disorder treatment admissions emerged.

     Unlike other studies which have shown mixed results on adolescent use patterns, this one looked at all legal states and utilized two major, long-standing datasets. Previous studies would look at less comprehensive state surveys where localities with high drug use rates

could simply opt out of the analysis. This study has no opt-out since it is based on nationally representative surveys of users and treatment facilities. Marijuana use was on a decades-long decline thanks to the concerted work of prevention efforts, but the **legalization and commercialization of marijuana is threatening to erase those public health gains; young people are beginning to use new forms of today's super high potency marijuana**, such as vapes and concentrates, that are significantly linked to serious harms to mental health and higher rates of addiction.

4. **Health Care Costs**: Legalization of cannabis will inevitably lead to **increased health care costs** for NH residents due to treatment for chronic use disorder and treatment for injury and harm directly associated with cannabis use that ELIMINATES ANY PROFITS FROM CANNABIS COMMERCIALIZATION.
    - **FACT-Legalization of cannabis led to increased exposures in Colorado:** Calls to the poison control center due to marijuana exposures continue to rise in Colorado, with 318 total calls in 2020 versus 125 in 2013, a 154 percent increase. Of these calls, 69 percent were for youths aged 0-18. Such calls totaled 221 in 2020, representing a 240 percent increase since 2013; 2023: Increase number of poisoning of children due to edibles, marketed and targeted at youth.
    - **FACT 19NOV2022: Study of Impact of Cannabis Legalization in Colorado:** "There was a positive association between the number of cannabis dispensaries and rates of psychosis ED visits across all counties in Colorado...our findings suggest there is a potential impact on the mental health of the local population that is observed after cannabis legalization."
        - **FACT – 14JAN2023 Manchester Union Leader:** "Last year, the Northern New England Poison Center handled 62 cases of New Hampshire residents sickened after exposure to cannabis. Nineteen involved children under 6, and most of them had consumed cannabis edibles. Karen Simone, director of the Northern New England Poison Center, said the number of accidental ingestion cases among little kids has gone up as the cannabis industry has moved from illegal to medicinal to recreational use. The center handles calls 24/7 for New Hampshire, Maine and Vermont."
    - **FACT-Cannabis leads to increased healthcare costs:** Canada: According to the Canadian Substance Use Costs and Harms study, cannabis accounted for 7 percent of the cost of substance use in Canada in 2014: $2.8 billion out of $38.4 billion. This figure includes costs associated with health care for those with health conditions related to cannabis use (such as cannabis dependence, injury from driving accidents due to cannabis impairment and lung cancer) as well as lost productivity due to these health conditions.
    - **FACT-Increased health issues result in required healthcare and related costs:** Adverse Health Effects: Marijuana use is linked to several adverse health outcomes, including addiction, impaired cognition, pulmonary effects, mental illness, and other problems all of which require healthcare. Approximately one in ten adult users of marijuana develops addiction, and this number is higher among adolescents. [Note: Annu Rev Med. Author manuscript; available in PMC 2016 Jun 9. Published in final edited form as: Annu Rev Med. 2016; 67: 453–466. Published online 2015 Oct 19. doi: 10.1146/annurev-med-050214-013454]

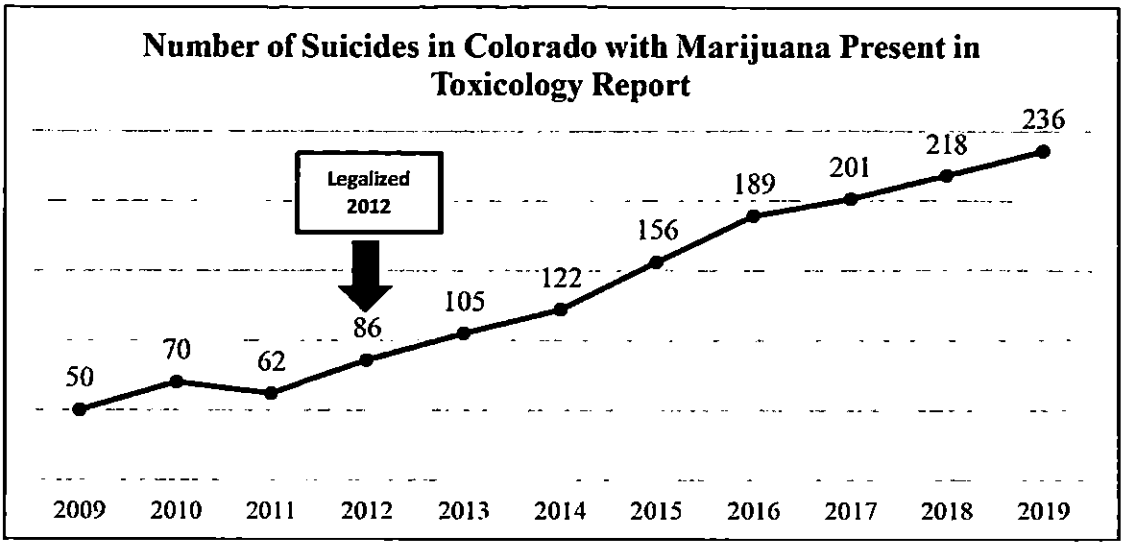
- **FACT Hudson Institute 28JUN2021:** " All of the states that accompanied Colorado on the path toward legalization have now emerged as the states with the highest percentage of youth users, well above the national average."
- **FACT Hudson Institute 28JUN2021:** In Colorado for teens, marijuana is the most common drug found in toxicology of those who die by suicide. The percentage of incidents of suicide in which toxicology results were positive for marijuana increased to 23 percent in 2018, compared to 14 percent in 2014 (note that these figures are prior to the pandemic)."
- **FACT – 29NOV2022 Health:** "Journal of the **American Medical Association**, suggests cannabis is no better at relieving pain than a placebo."

- **FACT-Legalization leads to increased addiction disorder requiring medical attention** and treatment; additional poison-control and emergency department visits and increased collisions and traffic fatalities all resulting in healthcare cost increase.
  - **FACT Hudson Institute 28JUN2021:** "Workplace drug-testing company QUEST Diagnostics recently reported, positive tests for marijuana are 30 percent higher in Colorado than the national average."
  - **FACT Hudson Institute 28JUN2021:** "Poison control centers (which) report that adverse marijuana-only exposures have more than quadrupled since legalization (Colorado)."
  - **FACT CNN 26JUL2022:** "Higher concentrations of tetrahydrocannabinol or THC -- the part of the marijuana plant that makes you high -- are causing more people to become addicted in many parts of the world, a new review of studies found. Compared with people who use lower-potency products (typically 5 to 10 milligrams per gram of THC), those who use higher-potency cannabis are more likely to experience addiction and mental health outcomes, according to the study published Monday in the journal Lancet Psychiatry."

5. **Cost of Regulation:** There is **NO STATE that legalized the use and possession of cannabis that has been able to pay for it** and there is NO evidence that NH will be any different.
   - **FACT – 05DEC2022:** Colorado expecting a $100 million shortfall in cannabis tax revenue for 2022; Colorado marijuana industry is going through the largest downturn that we've ever seen," said Truman Bradley, executive director of the Wheat Ridge-based Marijuana Industry Group. "Our industry is going through big time layoffs. Thousands of people have lost their jobs and small business owners are going under. Unfortunately, I expect that to continue into the coming year."
6. **Illicit Market:** In EVERY state where the possession and use of cannabis was legalized the illicit growing, sale and distribution of cannabis has proliferated.
   - **FACT -Illicit marijuana markets proliferate in every state where its legal:** (AP) In the **five years since California voters approved a broad legal marketplace for marijuana, thousands of greenhouses have sprouted across the state.** United Cannabis Business Association, a Los Angeles-based trade group. "No one is making money anywhere in the (legal) supply chain,"
   - **FACT – Awash in illegal cannabis farms, Oregon plans millions for relief** By ANDREW SELSKY (Associated Press) SALEM, Ore. Dec. 16, 2021 3 p.m. The **Oregon Legislature has dedicated $25 million to combat the proliferation of illegal marijuana farms in Oregon.**

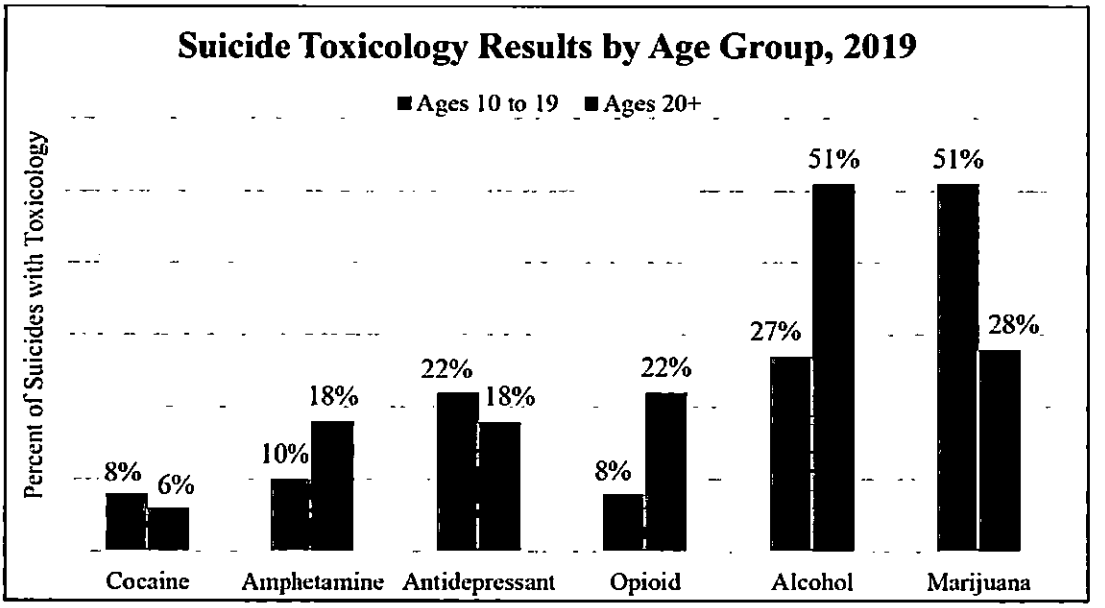
- **FACT Legal cannabis dispensaries are targets for criminals:** Oakland cannabis business hit twice in back-to-back burglaries and closer to home a Maine dispensary was burglarized; and, PORTLAND (WGME) – Portland police are investigating after a medical marijuana delivery driver was allegedly robbed at gun point in a parking lot.
- **FACT – Illicit cannabis in Oregon results in calls for National Guard:** SALEM, Ore. (AP) —A **southern Oregon county declared a state of emergency amid a sharp increase in illegal cannabis farms,** police raided a site that had about **2 tons of processed marijuana** and 17,500 pot plants. **Jackson County Commissioners asked Gov. Kate Brown to send in the Oregon National Guard "to assist, as able, in the enforcement of laws related to the production of cannabis."**
- **FACT – Illicit cannabis shops flood NYC: January 19, 2023: Fox News: According to the NYPD, more than 1,300 illegal marijuana stores are selling pot without a license.**
- **FACT – OK 13JAN2023: "Legal Cannabis Industry Is 'Bleeding To Death' In Oklahoma, Gov Suspects Thousands Of Illicit Operators;** The Oklahoma Bureau of Narcotics and Dangerous Drugs (OBN) suspects there are around 2,000 potentially illegal medical marijuana licenses in the state."
- **FACT – 13NOV2022 Boston Globe:** "As recreational marijuana prices plummet in Massachusetts, medical sales slump."

7. **Disproportionate Effect on Disadvantaged Communities:** The harmful effects associated with the sale and distribution of a product scientifically proven to be harmful to humans has consistently had a disproportionately negative consequence in disadvantaged communities.
8. **Law Enforcement:** The legalization of the possession and use of cannabis in NH by the state will lead to the requirement for law enforcement to address the illicit market in order to keep the state's legal market economically viable. In effect, this is the Volstead Act in reverse by making **NH law enforcement modern day prohibition police**. NH law enforcement doesn't have the capacity or funding to adequately address the public safety challenges we currently face let alone divert resources to what will become a failed attempt to control the illicit market for cannabis that will eviscerate the state's program.
9. **Public Sentiment:** According to a national Emerson College poll, **62% of registered voters do not support legalizing marijuana when presented with other, non-legalization policy options**. This new poll, conducted by Emerson College, found that the **majority of voters support other non-legalization marijuana policies** (prohibition, decriminalization, or medical legalization) while **only 38% believe the country should move to legalize and commercialize marijuana** for production, recreational use, and sales, like in stores.

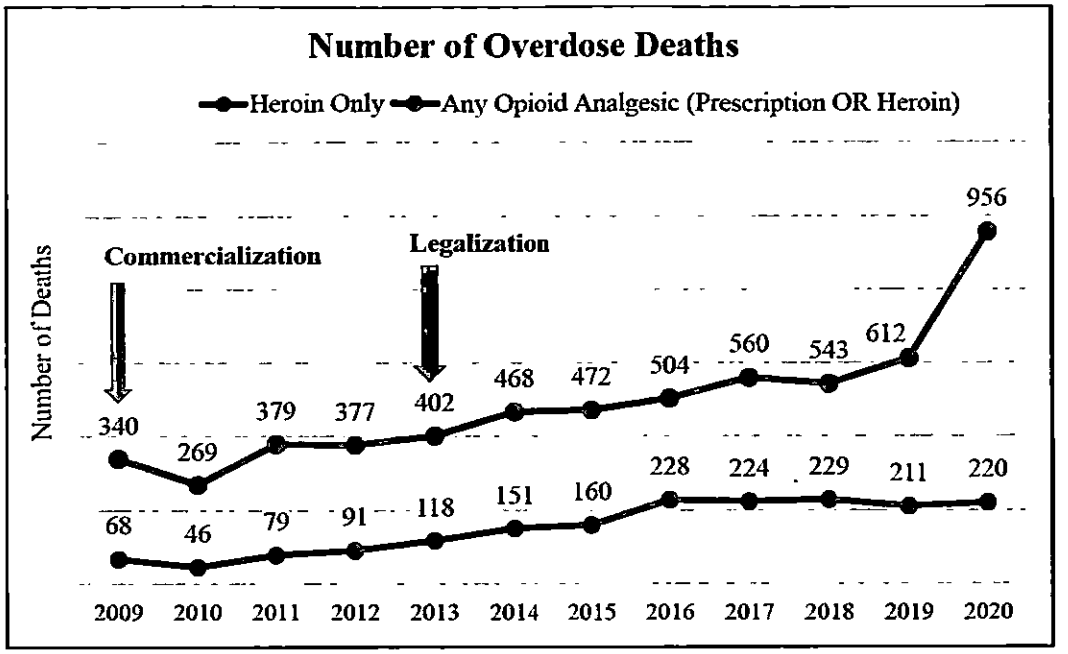


SOURCE: CDPHE, Colorado Violent Death Reporting System

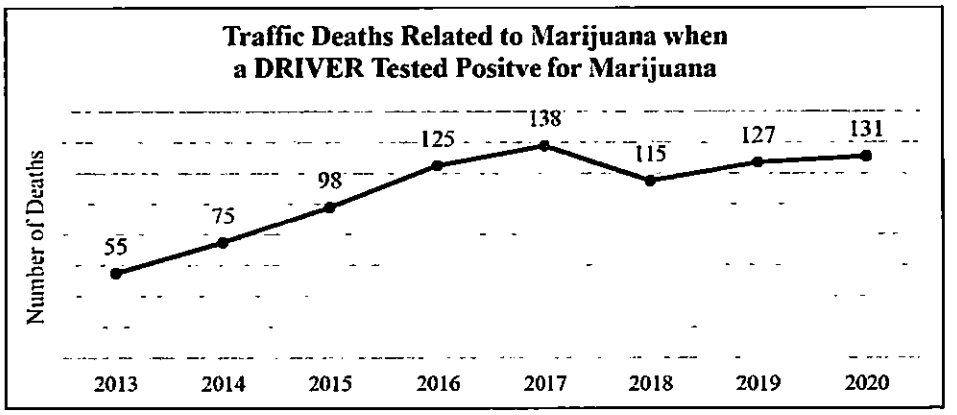
Of suicides among Colorado youth aged 10-19, marijuana was present in 51 percent of toxicology reports.



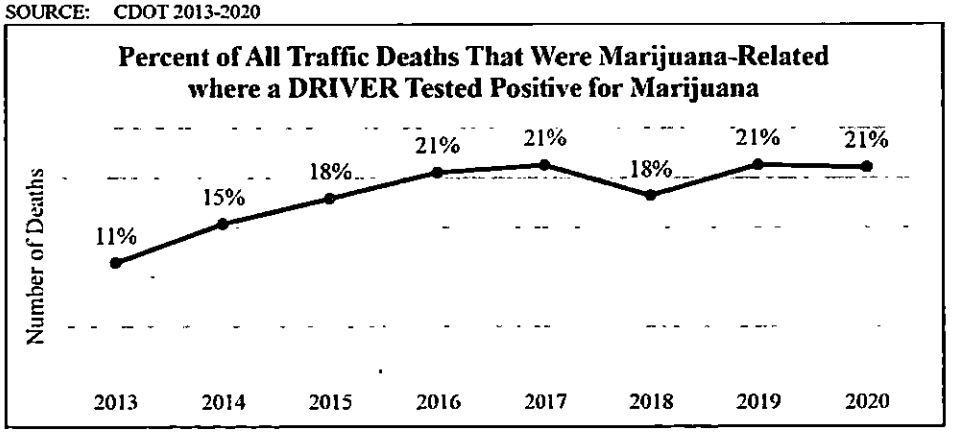
SOURCE: CDPHE, Colorado Violent Death Reporting System



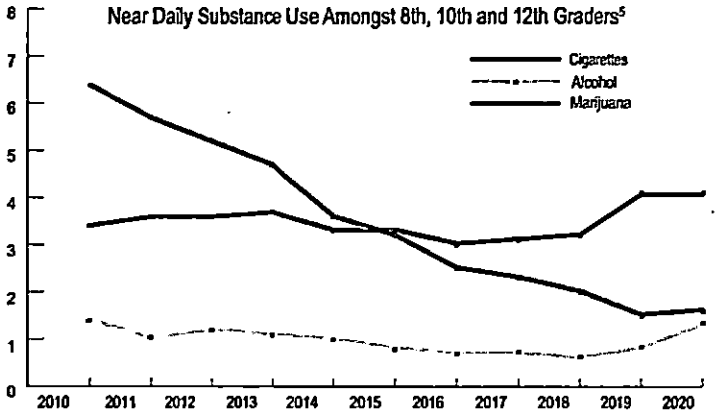
Source: CDPHE, Vital Statistics Program



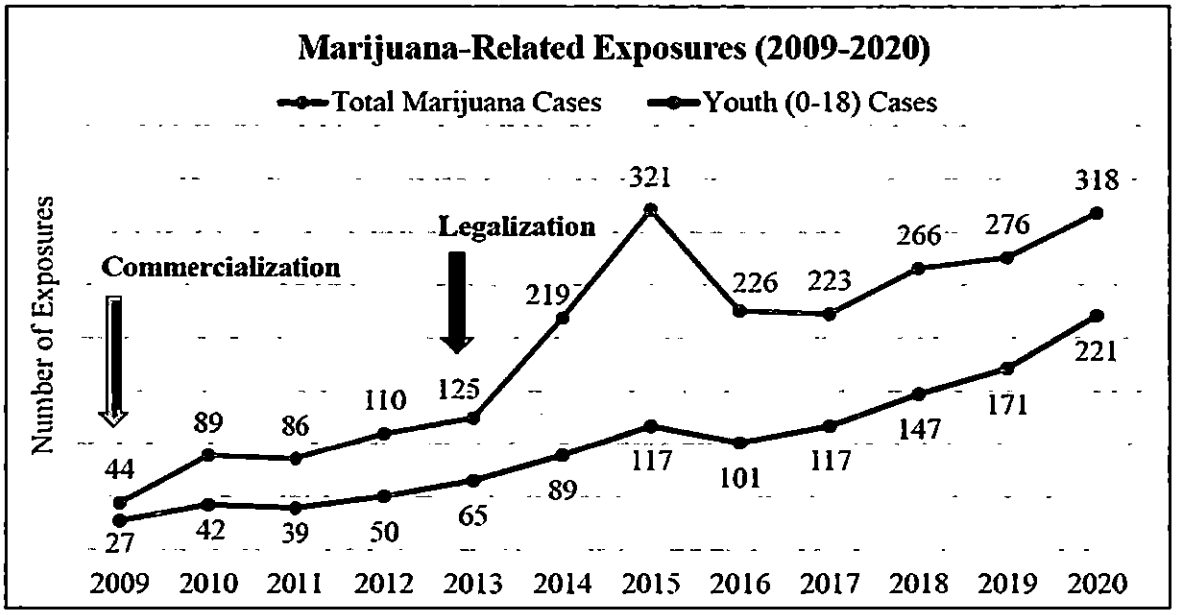
SOURCE: CDOT 2013-2020



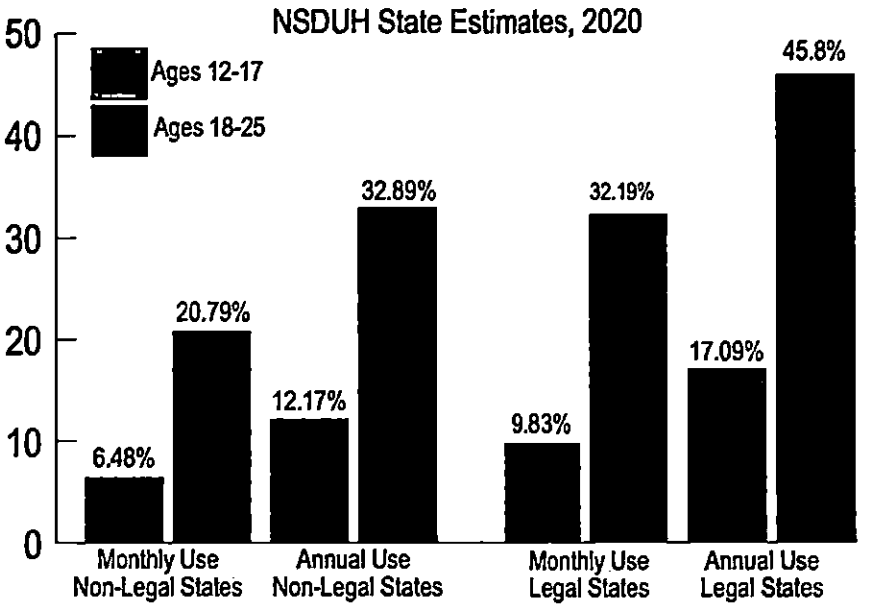
SOURCE: CDOT 2013-2020



1. E: Monitoring the Future, 2020



SOURCE: Rocky Mountain Poison and Drug Center



VII. SUMMARY:

- **Public Health Risk is Substantial:** Voting in favor of this bill is a vote to **increase harm and disease directly related to cannabis use**. Follow the facts.
- **Highway Deaths:** Voting for this bill will lead to **increased collisions and death on NH highways** as it has in other states. NH has no per se limit and no effective means to convict anyone responsible for death on the highway due to impairment by cannabis. Voting for this bill will make your highways and roads in NH more deadly.
- **Increased Addiction:** The facts and studies unequivocally state that legalization leads to increased use, **increased addiction,** increased medical and addiction related harm and disorders.
- **Healthcare Costs will inevitably increase** as a direct result of increased use, chronic addiction disorder and related medical and behavioral harm proven to be associated with cannabis use. Voting for this bill takes money out of our pockets.
- Regulatory Chaos: No state that legalized cannabis has been successful in regulating it; this bill proposes the state adopt the responsibility for distribution of cannabis with no structure or funds to adequately regulate, test and certify the product sold by the state is free of harmful chemicals let alone the other liability that extends from sale. The taxes touted by proponents of legalization have NEVER MATERIALIZED in any state that legalized it. In California the legal industry has collapsed. In Oregon the illicit market has captured and outsold and legal market. The illicit market will always be able to undersell the legal market because of taxes and regulation; legalization from a regulatory and economic perspective is doomed.
- **Illicit Market will proliferate** and expand in NH to the extent it will cause the collapse of the legal industry; the state will end up losing millions and there will be a push to have NH police enforce laws to support the state's legal marijuana business; the Volstead Act in reverse. NH law enforcement is unprepared and ill-equipped to handle the explosion of illicit marijuana that will result from legalization.
- **Disproportionate effect on disadvantaged** communities is evident where it was legalized and further imperils communities already struggling with disproportionate levels of addiction. This bill will only make it worse.

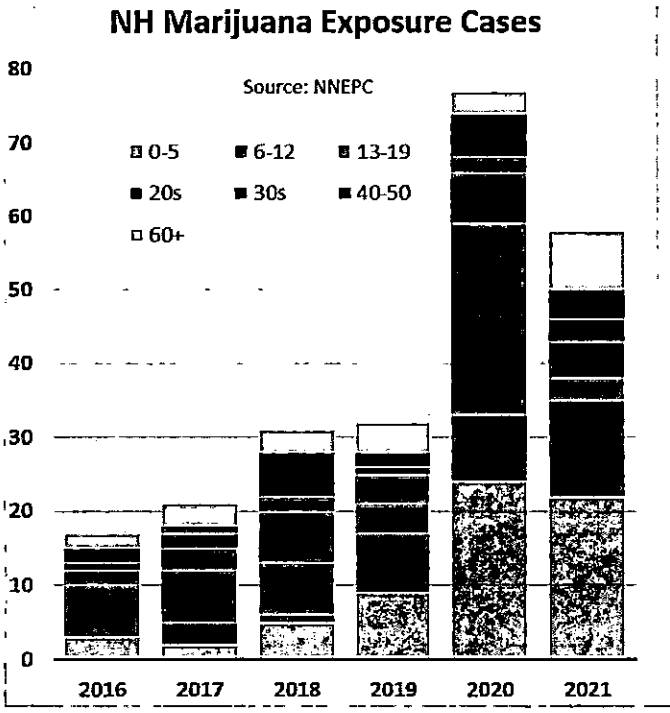
- **Law enforcement is not prepared nor equipped to handle the increase in cannabis related collisions, fatalities and overdoses;** we have no effective laws to convict persons responsible for cannabis impaired collisions and fatalities; we have no testing mechanisms; we have no regulatory controls for packaging or carriage or use in motor vehicles, heavy equipment, buses including school buses and commercial vehicles.
- **Public sentiment is clearly opposed** to full-scale legalization when given other options as proven by the most recent Emerson College poll.
- NO ONE IN NH GOES TO JAIL FOR POSSESSION OF PERSONAL USE QUANTITIES OF CANNABIS
- PERSONS WITH QUALIFYING CONDITIONS AND A PRESCRIPTION CAN GET CANNABIS IN NH TODAY.
- NH continues to be in the firm grip of drug addiction/public health crisis with increased overdoses and overdose deaths last year in both Manchester and Nashua. In what world does it make sense to add yet another addictive substance proven to be harmful especially to children, youth and pregnant women? Is this the path to a better NH?
- Legalization is NOT INEVITABLE so long as we consider the FACTS
- Don't be taken in by FALSE PROMISES by people who will PROFIT FROM ADDICTION.
- Vote COMMON SENSE and defeat HB 639, it's the commonsense thing to do.

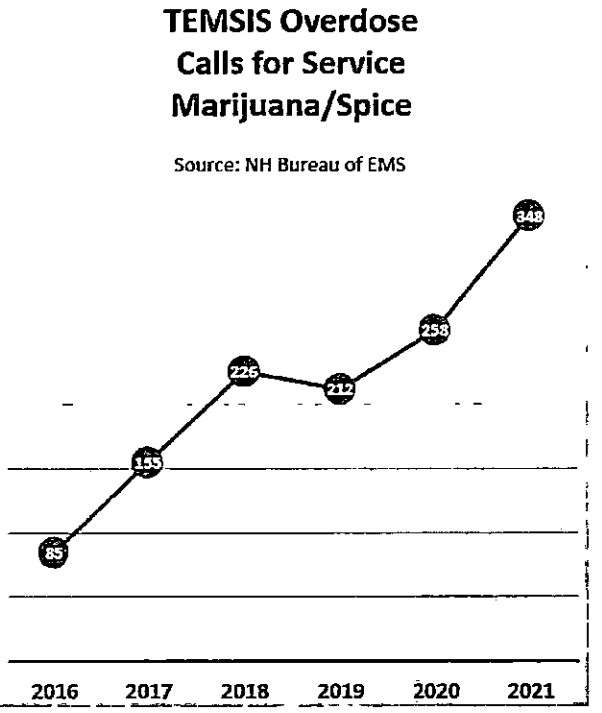
VIII. COSTS OF COMMERCIALIZATION OF CANNABIS IN NH:

A. BACKGROUND ANALYSIS: The current estimated economic cost of substance abuse disorder in the United States is approximately **$3.73 T annually,** including $0.50 T in tangible measured costs and $3.23 T in intangible costs, a figure that consumes the equivalent of the combined GDP of 45 of the 50 US States and is larger than the combined GDP of California, Texas, New York, Florida, Illinois, Pennsylvania, and Ohio.
   - The analysis divides the costs of substance abuse disorder into three main categories – tangible direct costs, tangible indirect costs, and intangible costs.
   - Tangible costs ($0.50 T, 13.4%) are those that can be measured directly and/or estimated based on economic activity, including, for example, direct healthcare expenditures for substance abuse disorder treatment and the treatment of health conditions exacerbated or caused by substance abuse, and indirect costs including, for example, productivity loss due to premature mortality or absenteeism due to morbidity, criminal justice activity, public assistance expenditures, and expenses associated with substance abuse-related traffic collisions and fires.
   - Intangible costs of substance abuse disorder ($3.23 T, 86.6%) include losses that are not frequently quantified outside of actuarial analysis, social science research, or personal injury torts, such as the economic value assigned to loss of life, injury, and reduced quality of life. Among these, the most significant examples of the intangible costs of substance abuse disorder are those associated with the loss in quality of life of those with substance abuse disorders who do not receive treatment ($0.39 T) and the pain and suffering of deaths, traffic deaths, and victims of violent crime associated with substance abuse disorder ($2.84 T).

B. COST OF SUBSTANCE USE DISORDER IN NH:
   - $3.73 T in **US cost** is the equivalent of **$11,300 per person cost**
   - **NH cost** based on $11,300 pp is the equivalent of **$15.8 BILLION in total substance use disorder costs for NH**[1]

- Using the value of 7% of all substance abuse costs in Canada are attributable to cannabis we see the **estimated cost of commercial cannabis in NH at $1.1 B**
- Using a conservative value of estimated increase in cannabis use in NH after commercialization based on average rates seen in other states at 8% annually (see average difference in use ages 18-25 actually 13%) we see an annual increase in NH costs directly related to cannabis commercialization at **$88 Million annually.**
- Journal of American Medicine Association (JAMA) 2021 Assessment of Annual Cost of Substance Use Disorder in US Hospitals reflected a total hospital only cost of $13.2 BILLION for substance use disorder treatments in the US.
- JAMA report reflects an average $8,014 cost per patient for cannabis use disorder in-patient treatment and $1,886 cost per out-patient treatment for cannabis use disorder.
- NH Overdose Calls for cannabis/spice reflect 348 calls in 2021; projecting an estimated 12% increase after commercialization we anticipate an additional 42 EMS calls for cannabis in NH.
- Using an estimated hospital cost of in-patient out-patient of $4,000 per call we can expect **hospital costs to increase by at least $168,000.** Again, this is hospital costs only; it excludes FD/EMS and Police costs related to each call for service based on JAMA data.





- Traffic Fatality Deaths/Costs in NH: Using Colorado data we can expect a 120% INCREASE in traffic deaths related to cannabis use after commercialization.
- There were 116 traffic deaths in NH in 2021.
- During 2018, 12 million (4.7%) U.S. residents reported driving under the influence of marijuana in the past 12 months; 2.3 million (0.9%) reported driving under the influence of illicit drugs other than marijuana.
    - In NH that would equate to 65,800 operators reporting driving under the influence of marijuana in the past 12 months.

- Using an estimated increase of 12% after commercialization of cannabis in NH we anticipate an **additional 7,896 operators in NH will be impaired by cannabis.**

- Using an estimated law enforcement cost to investigate a single car motor vehicle fatality of $10,000 per investigation the total estimated cost to investigate fatal accidents in NH is estimated very conservatively at **$1.16 MILLION.**
- The percent of crash deaths involving cannabis more than doubled from 9 percent in 2000 to 21.5 percent in 2018, and the percent of deaths involving cannabis and alcohol also more than doubled from 4.8 percent to 10.3 percent. Nov 10, 2021
  - Using an estimate of 22% of NH fatal accidents involve cannabis, we see an estimated **26 fatal crashes in 2021 that involved cannabis**. [Note: NH has no per se limit for cannabis intoxication and therefore operators are not charged with DUI by cannabis in regards to fatal crashes in NH.]
  - The **cost to investigate fatal crashes involving cannabis in NH in 2021 is estimated at $255,000.**
  - Expecting a 120% increase in cannabis related crashes after commercialization in NH based on data from other states we expect to see an estimated increase of 55 fatal crashes in NH involving cannabis after commercialization.
  - The estimated increase in cost for law enforcement related to cannabis involved crashes in NH is estimated at an **additional $230,000** (excluding court costs, and prosecution costs etc.) for a total estimated cost of **$485,000 for law enforcement alone related to cannabis involved fatal crashes.**
- Illicit manufacturing/growing and trafficking in NH is expected to increase dramatically after commercialization.
- In Oregon, the state legislature recently allocated an additional $25 MILLION to address illicit cannabis trafficking in Oregon
- Cost of illicit marijuana trafficking investigations is highly varied and not easily quantifiable. The anticipated increase in NH law enforcement investigations that involve illicit cannabis trafficking is subject to conjecture.
  - Using an estimated increase of 100 investigations in the state annually at an average cost of $20,000 (exclusive of prosecution, and courts etc.) per investigation we can expect to see an annual estimated increase of **$2.0 MILLION in costs to NH law enforcement after commercialization.**

[1] Recovery Centers of America, Economic Cost of Substance Use Disorder in US, 2019

NH ASSOCIATION OF CHIEFS OF POLICE
Opposition to Legalization of Marijuana

1. **MARIJUANA IS A SCHEDULE 1 DRUG – IT IS ILLEGAL**

2. **NH CONTINUES TO EXPERIENCE AN OPIOID CRISIS**
   a. There are 463 confirmed drug overdose deaths in NH for 2022.
   b. In addition, there are 14 cases pending toxicology for 2022 making the total 477.
   c. Recent government-sponsored peer-reviewed scientific studies show marijuana is a risk factor in the increased non-medical use of opioids and according to the National Academy of Sciences the **Opioid Crisis is worsening where marijuana has been legalized.**

3. **DRUGGED DRIVING**
   a. **THERE IS NO ROADSIDE CHEMICAL DETECTION TEST.** There is no way for officers to test drivers immediately for impairment from marijuana.
   b. NH has no per se limit and no effective means to convict anyone responsible for death on the highway due to impairment by cannabis.
   c. State Police Sgt. Jesse Sherill was killed by a trucker with THC in this blood.
   d. Every state that legalized saw an increase in marijuana related road fatalities.

4. **POTENCY**
   a. The content of THC in marijuana has increased over 1800%. In the 1970s, marijuana had a mean potency of 3-5% THC. Now, the average potency for edibles and extracted products is 68-75% THC.

5. **REVENUES**
   a. In every state where it is legal, the revenue that has been promised has not been generated. ***There is no evidence that NH will be any different.***
   b. Colorado - December 5, 2022, Colorado is expecting a $100 million shortfall in cannabis tax revenue. The cannabis industry is going through layoffs. People are losing their jobs and small business owners are going under.
   c. Massachusetts - November 13, 2022, Boston Globe, "As recreational marijuana prices plummet in Massachusetts, medical sales slump."

6. **ILLICIT MARKET** – In EVERY state where the possession and use of cannabis is legal, the illicit growing, sale and distribution of cannabis has proliferated.
   a. **There will be an increase in NH law enforcement investigations that involve illicit cannabis trafficking.** Using an estimated increase of 100 investigations annually at an average cost of $20,000 (exclusive of prosecution and courts), we can expect to see an annual estimated increase of $2 million in costs after commercialization.

b. NY City – January 19, 2023, Fox News: According to the NYPD, more than 1,300 illegal marijuana stores are selling pot without a license.
c. Oklahoma – January 13, 2023, Legal Cannabis Industry is Bleeding to Death." The Oklahoma Bureau of Narcotics and Dangerous Drugs (OBN) suspects there are around 2,000 potentially illegal medical marijuana licenses in the state."
d. Oregon – The Oregon Legislature has dedicated $25 million to combat the proliferation of illegal marijuana farms in Oregon, Associated Press, December 16, 2021.

7. IMPACT ON YOUTH, Temple University Study, November 28, 2022

1. Youth marijuana use increases after legalization.
2. RISK PERCEPTION OF YOUTH - Among adolescents and young adults, the association of lower perception of risk of harm with higher cannabis use prevalence was strengthened.
3. Young people are beginning to use new forms of today's super high potency marijuana such as vapes and concentrates that are significantly linked to serious harms to mental health and higher rates of addiction including marijuana vaping.
4. Every state that legalized marijuana saw an increased use of marijuana by youth.

8. PUBLIC HEALTH IMPACTS

a. Between 2017 and 2021, there were more than 7,000 confirmed cases of kids younger than 6 eating marijuana edibles, climbing from 200 to more than 3,000 per year
b. NH Overdose Calls for cannabis/spice reflect 348 calls in 2021; projecting an estimated 12% increase after commercialization, you can anticipate there will be 42 EMS calls for cannabis in NH.
c. Maine had more than **5,000 EMERGENCY DEPARTMENT VISITS** caused by marijuana in 2022.

9. PUBLIC PERCEPTION – EMERSON COLLEGE NH POLL

a. **Emerson College polls find 53% in New Hampshire <u>oppose</u> recreational marijuana legalization when presented with other, non-legalization policy options (keep illegal, decriminalization, or medical legalization).**

Testimony

HB 639-FN-A - Relative to the legalization and regulation of cannabis and making appropriations therefor

Senate Judiciary Committee

April 20, 2023

Dear Madam Chair and Members of the Committee:

My name is John Bryfonski, and I serve as President of the NH Association of Chiefs of Police. I come to you with more than 43 years of continuous public service in law enforcement including more than 10 years as Chief of Police in the Town of Bedford, NH. As you may know from my previous testimony, my public service includes 27 years with the U.S. Drug Enforcement Administration (DEA) serving across the country.

The NH Association of Chiefs of Police remains <u>OPPOSED</u> to the legalization and commercialization of cannabis/marijuana.

First, marijuana remains illegal under Federal law and remains a Schedule 1 controlled substance.

Second, NH remains in the tight grip of a drug addiction and opioid crisis with more than 460 Granite Staters dead from drug overdoses in 2022. We are on a trajectory to exceed that number in 2023. Emergency department admissions due to cannabis use and cannabis use disorder continue to increase especially in states that legalized marijuana. In 2022, Maine recorded more than 5,000 emergency department visits due to cannabis use and cannabis use disorder.

Third, states that legalized marijuana experienced a significant increase in marijuana related collisions and fatalities. Marijuana related fatalities in Colorado increased by 51% in 2022. Additionally, there is no accepted roadside impairment test for marijuana and NH has no "per se" limit on the amount of THC (Ng/ml). States that legalized marijuana have enacted such limits. If marijuana is legalized in NH we expect a 120% increase in marijuana related collision fatalities.

Fourth, the potency of marijuana today at 65-75% THC is excessively high and approximately double the concentration of THC in marijuana from decades prior leading to increased addiction and cannabis use disorder cases.

Fifth, no state that legalized marijuana to date has seen the revenue from sales that were touted when legalization passed. Colorado had a $100 million revenue shortfall and in Massachusetts marijuana prices have collapsed and the "medical marijuana" industry is in peril.

Sixth, no state that legalized marijuana was able to see any reduction in the production and distribution of illicit marijuana; in fact, it increased. In Oregon, the legislature earmarked $25 million in 2021 to specifically combat illicit marijuana in 2022.

Seventh, in states where marijuana was legalized, the use of marijuana by youth/juveniles increased. In Colorado, marijuana was prevalent in a majority of completed teen suicides.

Eighth, the 2022 Emerson College poll found 53% of NH residents opposed legalization when presented with other options such as decriminalization and medical marijuana, which have been put into law in NH.

Lastly, a culture that is reeling from addiction to a plethora of substances, both licit and illicit, the addition of yet another addictive substance science has unequivocally demonstrated is unhealthy and results in a wide range of medical and behavior and developmental health issues notwithstanding the impact on public safety makes absolutely no sense for a society that wishes to promote good health, a vibrant and healthy working population and safe communities for all.

NH Senate Judiciary Committee

Testimony in Opposition to HB 639-FN-A

April 20, 2023



Dr. Andrew Seefeld, M.D., F.A.C.E.P
Medical Director, Emergency Department
Director of Trauma and Emergency Medical Services
Speare Memorial Hospital
Plymouth, NH 03264

To whom it may concern,

As the Medical Director of an Emergency Department, a practicing Emergency Physician, a father of teenagers, and a person in recovery from substance use disorder, I am extremely concerned about the Legalization and Commercialization of recreational Marijuana. It is in my personal and professional opinion that the passage of HB639 will have catastrophic downstream effects on our collective mental health as a society and increase the risk of many people, particularly our youth, in developing a substance use disorder in the future.

Marijuana, similar to all other mind-altering substances, provides a brief escape from negative thinking and emotional patterns. Though this may be viewed as a "temporary" fix, the long term consequences of not addressing upstream thinking and emotional breakdowns can be catastrophic and at times, deadly!

As a practicing Emergency Physician I am seeing a significant increase in the number of patients presenting with mental health complaints as well as substance misuse and abuse. What this tells me is that our healthcare system is not providing adequate resources to help our patients understand thinking and emotional patterns and how they relate to behavioral choices. It is in the choice of behavior where we as humans experience most of our breakdowns including those that involve drug use.

As a father of teenagers, the effect of marijuana on the developing adolescent brain is also an area of profound concern. Our prefrontal cortex, the area of the brain that is our "operating" center, is not fully developed until at least 25. Exposure to marijuana before this time may lead to issues with memory and learning, difficulty with thinking, maintaining attention and problem-solving as well as reduced coordination. Furthermore, marijuana use may increase a variety of mental health issues such as depression and anxiety and eventually lead to the development of a substance use disorder.

Having evaluated how my thoughts and emotions drove problematic behaviors in the past has afforded me extraordinary opportunities in life that would never have existed if I had continued to avoid, by using substances, rather than seek to authentically understand myself. Giving more access to marijuana, by passing this type of legislation, inadvertently provides less urgency and opportunity for individuals to get emotionally healthy and will have profound negative consequences for us and our future generations to come.

Sincerely,

Andrew W. Seefeld, M.D., F.A.C.E.P.
Medical Director, Emergency Department
Director of Trauma & Emergency Medical Services
Speare Memorial Hospital

NH Senate Judiciary Committee

Testimony in Opposition to HB 639-FN-A

April 20, 2023



Dr. Joseph Ebner, M.D., FACOG, CPE
Chief Medical Officer
Speare Memorial Hospital
Plymouth, NH 03264

Marijuana State Senate Hearing on HB639 **4/20/23**

I am saddened to hear that in the midst of a behavioral health crisis, the New Hampshire legislature is considering any bill that would legalize marijuana. New Hampshire hospital emergency departments experience unprecedented numbers of patients in psychiatric crisis awaiting transfer to underfunded acute mental hospital units. Weekly, Speare Memorial Hospital in Plymouth, NH, has mental health patients waiting for days in our small emergency room. The local and state mental health system is unable to keep up with the current demand for services. It is a fractured system in need of assistance.

With respect to cannabis and mental health, we can look to the "real world" Colorado experiment where recreational marijuana was legalized in 2014. Keeping in mind that no state has legalized marijuana use in children under 18, all of the states that accompanied Colorado on the path toward legalization have emerged as the states with the highest percentage of youth users, well above the national average.

Since 2016 Colorado has been the state with the highest rate of consumption for all four of the major intoxicants: marijuana, cocaine, alcohol, and opioids. The opioid epidemic of use and overdoses has not been reduced by the rise in marijuana. The rate of cannabis use disorder itself increases as potency and availability of marijuana increases.

Do not be disillusioned, this is not the Woodstock Weed of the 60s. THC potency has increased from 3% then to over 90% now on the market, substantially increasing the risk of cannabis-induced psychosis. Marijuana is the most common drug found in toxicology of those who die by suicide. Colorado ranks first in the nation for the highest percentage of adults who need drug treatment but aren't getting it.

As a practicing obstetrician here in New Hampshire I already see many pregnant women suffering from Cannabis Use Disorder who struggle to abstain from smoking pot in pregnancy. Legalization reduces the perceived harm in a population whereby increasing use. We know cannabis exposure affects the developing brain in utero and among children and teens. This is not a large-scale problem we want to introduce to the next generation to solve!

The link between cannabis use and psychosis (a lifelong disabling mental health condition) is strongly supported in the psychiatric literature. Out of scientific concern of the effects of cannabis use on mental illness, the American Psychiatry Association has called upon the federal government to organize better controlled studies researching the effects of chronic cannabis use on long term health. They do not support legalization of recreational marijuana and feel states should proceed with caution.

The science supports that legalizing recreational marijuana in New Hampshire would exacerbate the current mental health crisis affecting our youth today, and saddle many adults of tomorrow with a lifelong struggle with schizophrenia.

There is a societal cost to making an addictive and dangerous substance a commercial product. As our communities and families turn our attention from the COVID pandemic to the behavioral health pandemic, let us not make this work harder by legalizing marijuana and putting our children and young adults at risk.

Joseph A Ebner, MD, FACOG, CPE
Chief Medical Officer

Speare Memorial Hospital
Plymouth, NH 03264

Americans Against Legalizing Marijuana
AALM.info

Directors:
Carla Lowe – President
Scott Chipman – Vice President
Stephanie Haynes – Secretary
Brook Lowe – Treasurer

Advisory Council:
Aubree Adams – TX
Mom/Victim
Taknesha (Tak) Allen – CA
International Faith Based Coalition
Catherine Antley MD – VT
Pat Barton – FL
Drug Prevention Education
Sandra Bennett – WA
Marijuana Harms Educator
William Bennett MD. – WA
n Coleman, PhD – VA
Pres. Drug Watch International
Bob DuPont MD – MD
Sheriff Jon E. Lopey – CA
Stephie & Gerald Mager – NV
Parent Victims
Roger Morgan – CA
CEO Take Back America Foundation
Bob Orleck, Esq – VT
Karen Randall MD - CO
Stuart Reece MD, Ph.D - AU
Sue Rusche – GA
CEO National Families in Action
Julie Schauer – VA
Parents Opposed to Pot
Sally Schindel – AZ
Mom/Victim
Geraldine Silverman – NJ
Drug Prevention Education
Hon Timothy Tower – CA
Retired Drug Court Judge
Eric Voth MD – KS

April 18, 2023

Dear Friend,

We are aware that marijuana-related issues – from homelessness to gun violence – are before the public at local, state and national levels. It is critical that you have current science-based information from which to inform the public, make decisions, set policies or encourage others to do so. Our country is counting on your actions to protect our children and the public from the damages of this dangerous drug.

According to the Federal Food and Drug Administration, marijuana is classified as a Schedule 1 Most Dangerous Drug, (along with Heroin, LSD, MDMA, Mescaline). It is defined as having "no currently accepted medical use and a high potential for abuse." Today's THC (Tetrahydrocannabinol), the substance in marijuana that is primarily responsible for the effects on a person's mental state, is highly potent, long acting and addictive. Marijuana is classified as a hallucinogenic drug.

This Packet contains the following:

1. "The Risks of Marijuana Use" – discusses the 36 major risks of marijuana use
2. "Ten Truths About Marijuana" – pocket sizes cards with key information about marijuana
3. "Marijuana – Man-Made Disaster" – popular infographic flyer – facts of marijuana
4. "Water and Wildlife – or Weed" – thorough discussion of critical impact of pot grows on the environment
5. Model legislation and backup information: "Marijuana/Cannabis Right to Know Bill."
6. "Marijuana Use and Violence" - This paper discusses the clear connection between marijuana use and violence.

Americans Against Legalizing Marijuana (AALM) is a Federally approved non-profit all volunteer corporation whose primary goal is to make the country aware of the dangers of marijuana. All our projects are funded by private donations. Our officers include:

Carla Lowe of Sacramento is founder and president, married 66 years, mother of 5, grandmother of 9, and a volunteer drug educator for over 45 years. The U.S. State Department sent her around the world twice lecturing on marijuana to heads of state, students, parents, community leaders, and press. As a citizen legislator she sponsored 5 pieces of legislation involving youth and drugs, now California laws.

over...

Scott Chipman, vice-president, father, grandfather, small business owner of 45 years, is a volunteer grass roots community activist involved in identifying and addressing harms and causes of illicit drug dealing and use. His decades of community service in San Diego have been as parent advocate, PTA president, local community planning member and founder of several grass roots groups and campaigns addressing social problems and providing solutions.

Stephanie Haynes is secretary. She has been a community volunteer who has worked in drug prevention and drug policy fields since early 80s, first with the National Federation of Parents for Drug-Free Youth, then with many prevention organizations at the local, state, national, and international levels. She currently is Chair of the Greater New Orleans Drug Demand Reduction Coalition, Board member of Save Our Society from Drugs, and Coordinating Team Member of the international organization, One Voice One Message.

William (Brook) Lowe is treasurer. He has three years of graduate work in finance at Northwestern University. He has served as chief financial officer for a number of non-profits since retiring as a Vice President with Wells Fargo Bank.

David Evans, Esq., is our consultant on law, policy, and science issues. He has had many years of experience in regulatory issues concerning substance abuse disorder treatment and has litigated many substance abuse-related cases. He has written several books and articles that deal with marijuana medical science and law. He is a former Research Scientist with New Jersey Department of Health.

The Advisory Council of AALM consists of recognized leaders in fields of drug prevention and treatment, medicine, law enforcement, community leaders and attorneys.

The public and many officials have been led to believe that marijuana is harmless and no more damaging than tobacco. Actually, marijuana contains 4-5 times the toxins, irritants, and carcinogens as tobacco. This myth of harmlessness is promoted by the multibillion-dollar marijuana industry which has profited greatly at the expense of the youth of this country. This significantly weakens our future work force. It is time to look past the propaganda and make decisions based on scientific fact. May all of your actions be based on what is best for the future of this great country.



Carla Lowe, President
916 -708 - 4111



Scott Chipman, Vice - President
619-990-7480

P.S. Additional copies of the enclosed material are available upon request from AALM at (916) 708-4111 or (619) 990-7480, or from our website, www.aalm.info.

2023 SESSION

23-0528
04/10

HOUSE BILL *639-FN-A*

AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

SPONSORS: Rep. Osborne, Rock. 2; Rep. Layon, Rock. 13; Rep. Wilhelm, Hills. 40; Rep. C. McGuire, Merr. 27; Rep. DiLorenzo, Rock. 10; Rep. Berry, Hills. 39; Rep. McWilliams, Merr. 30; Rep. Wallace, Rock. 8; Sen. Whitley, Dist 15; Sen. Murphy, Dist 16; Sen. Fenton, Dist 10

COMMITTEE: Commerce and Consumer Affairs

ANALYSIS

This bill establishes procedures for the legalization, regulation, and taxation of cannabis; the licensing and regulation of cannabis establishments; and makes appropriations therefor.

Explanation: Matter added to current law appears in ***bold italics.***
Matter removed from current law appears [~~in brackets and struckthrough.~~]
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

paid or incurred by a cannabis establishment or an alternative treatment center on BPT revenues. However, as a deduction, it would likely decrease revenues.

Regarding impact on the education tax, the Department is unable to know the available funds that will remain in the cannabis fund after deducting the amounts outlined in the bill. However, any amount remaining that is deposited into the Education Trust Fund that would go towards the collection of the SWEPT of $363 million would likely decrease revenues, relative to the tax to be collected by the municipalities to fund the SWEPT.

The Department indicates in order to administer the provisions of this bill it would need to add five additional positions listed below with the associated total costs for salary, benefits, equipment and operating expenses.

Position	FY2023	FY2024	FY2025	FY2026
Administrative Secretary (LG14)	$0	$68,000	$66,000	$67,000
Administrator III (LG31)	$0	$109,000	$110,000	$114,000
Tax Auditor IV (LG 29)	$0	$103,000	$102,000	$106,000
Tax Auditor IV (LG 29)	$0	$103,000	$102,000	$106,000
Attorney I (LG 30)	$0	$106,000	$106,000	$110,000
Total	$0	$489,000	$486,000	$503,000

The Department of Safety indicates the fiscal impact of this bill is indeterminable as it is impossible to predict criminal activities related to cannabis legalization. Based on information from impact reports provided by High Intensity Drug Trafficking Areas (HIDTA) program in the states of Illinois and Colorado where marijuana is legal, the Department has provided the following information and assumptions:

- Due to the nature of THC metabolization, especially for chronic users, there is no national standard for determining impairment by drivers using marijuana.
- Marijuana use in both states has increased significantly since its legalization including among minors.
- The average THC level in marijuana products has risen from 3 percent to 23 percent in smokable marijuana and from 56 percent to 99 percent for other forms (waxes, oils, and edibles)
- Despite legalization, marijuana trafficking and black market marijuana continue to be enforcement challenges in both states.
- Traffic deaths involving drivers who tested positive for marijuana and incidents of driving under the influence have increased.
- Treatment for marijuana use in Colorado has decreased and suicide incidents in which toxicology results were positive for marijuana have increased.

The Department states while they cannot predict the financial impact to New Hampshire, the Department assumes, based on the experiences from Illinois and Colorado, the financial impact due to the increased enforcement issues could be significant. In addition, the Department assumes, the enforcement issues may increase in crimes such as robbery, burglary, and theft. These enforcement issues will impact local and state law enforcement and lead to a need for increases in manpower and training.

The New Hampshire Municipal Association indicates this bill would increase local expenditures and local revenue by indeterminable amounts. Based on review of limited research available relative to changes in policing related to cannabis legalization in any forms by other states, the Association identified the potential fiscal impacts listed below.

- Greater access to cannabis may increase youth access and driving while under the influence incidents, leading to a shift in law enforcement focus and a need for additional training in detection, such as Drug Recognition Expert (DRE) training. These shifts may increase law enforcement costs, particularly in the field of specialized training for detection of impairment by cannabis.
- There may be reduced law enforcement costs associated with drug detection and prosecution for simple possession cases, freeing up funds for other uses.
- Border states where cannabis is illegal, and which border states where some amount of cannabis is legal, have experienced additional incidents related to driving while under the influence, particularly in counties near the border. As New Hampshire is bordered on all sides by legalized states it is likely that some additional enforcement costs are already being borne by municipal police departments.
- Most research funded by National Institute of Justice grants shows that legalization has minimal, if any, effects on violent crime.
- Generally, research in states that have legalized cannabis has shown more patients presenting in the emergency department with physical or psychological symptoms resultant from using marijuana or commercial cannabis products. While no research appears to exist relative to the number of patients arriving via ambulance, it stands to reason that some portion of patients do utilize ambulance services to arrive at emergency departments. Additionally, there may be some number of users who call for emergency medical assistance that are not transported for treatment to the emergency department. Based on the information available, municipalities should expect some increase in costs associated with EMS, if limited legalization increases the incidence of individuals utilizing cannabis.

Regarding revenue, the Municipal Association is not able to provide an estimate of the revenue generated by the bill, but reports Vermont, which recently legalized both cannabis and cannabis

Matthew Schelzi

From: Karen O'Keefe <kokeefe@mpp.org>
Sent: Monday, April 24, 2023 10:56 AM
To: Sharon Carson; William Gannon; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Subject: Responding to some points made by opponents of HB 639 (cannabis regulation)

Caution! This message was sent from outside your organization.

Dear Chair Carson and distinguished members of the committee:

I am grateful for the Senate Judiciary Committee's careful consideration of HB 639, which would legalize and regulate cannabis for adults 21 and older. A portion of the cannabis tax revenue would be used to fund substance abuse treatment and prevention (10%) and increased police officer training to detect drivers impaired by cannabis, medications, or any other drug (up to 5%). I listened to the hearing on Thursday and wanted to offer some additional information to put some concerns that were raised into context.

First, it is important to note that adolescent marijuana use has not increased after legalization. Some of the opposition points were predicated on the idea that teen marijuana use would increase, but the data does not back that claim up. As Director of the National Institute on Drug Abuse Nora Volkow testified before a U.S. Senate committee in March 2022, "legalization by some states of marijuana has not been associated with an increase in adolescents' marijuana use."

Some speakers confused correlation with causation, noting that some legalization states have higher use rates than non-legal states — ignoring the fact that the teen use was higher *before* legalization in those states. We have complied all the before-and after data here, with citations. You will find the data reassuring.

Encouragingly, as states have regulated cannabis, availability to teenagers has *decreased*. From 1975-2012, 80-90% of 12th graders consistently reported that marijuana was "fairly easy" or "very easy" to obtain. For the first time since the Monitoring the Future survey began 43 years ago, high school seniors' perception of marijuana's availability dipped below 80% — *after* states began to legalize and regulate cannabis. In 2021, the survey authors noted "historic lows" in the perceived availability of marijuana in all three surveys grades — 8th, 10th, and 12th.[1] (2022 data on that question has not been released yet.)

As a teenager of the mid-1990s, before any state even had medical cannabis, my generation had far easier access to cannabis than to alcohol. I grew up in the suburbs of Detroit, where it was widely known that you could drive to a specific street — French Road —and buy marijuana from dealers who walked up to your car. One teenage friend had a gun pulled on him while buying marijuana. Several friends who would never have voluntarily tried PCP were exposed to it through laced marijuana. As a freshman in college, a friend had his plans to become a teacher derailed because he was persuaded to sell a small amount of cannabis to a "friend of a friend," who was an undercover officer. Surveys show teenagers getting involved in selling is common under prohibition. A 2012 survey (before any state legalized) found 40% of high school students knew of schoolmates who sold marijuana only 1% knew of peers who sold alcohol.[2]

Criminalization ensures teenagers have the easiest access to marijuana — *and* that they are often the ones selling it and thus facing possible violence and felony charges. Prohibition also ensures cannabis is untested, contaminated by hazardous pesticides and heavy metals, and sometimes laced.

Second, legalization is not linked to increased rates of psychosis. Several opponents' concerns were predicated on the idea that legalizing cannabis would increase the number of these mental health crises. The data refutes this claim. An exhaustive recent study in the *Journal of the American Medical Association (JAMA) Psychiatry* found "no statistically significant increase" in psychosis-related diagnoses in legalization states compared to prohibitionist ones.

Of note, HB 639 includes several public health provisions, many of which are not included in neighbor states — much less illicit sales— where Granite Staters are currently buying their cannabis. HB 639:

- Allows regulators to set potency caps. (However, they may choose not to. Banning concentrates simply drives production underground — resulting in explosions from unsafe home-based butane hash extractions. In addition, many people use cannabis as an over-the-counter medicine and some need higher potency to get relief. Higher potency also allows consumers to inhale fewer times, reducing the risk of bronchitis.)
- Requires all retailers to stock lower-THC products that are prominently displayed.
- Requires retailers to provide an informational handout with all sales. The handout will be designed by the Commission, in consultation with DHHS, and there will be a separate iteration about risks specific to higher potency cannabis products. The handouts must include:
    - "how to recognize problematic usage of cannabis and how to obtain appropriate services or treatment"
    - "information regarding safe storage and disposal ... to prevent accidental poisonings"
    - how long cannabis can impair a person with various modes, and
    - information about risks, including related to DUI, pregnancy, breastfeeding, risks unique to younger adults, and risks related to mental health.
- Allows the Commission to require retailers to display posters about cannabis' risks.
- Restricts advertising, including banning billboards and mass marketing with a high likelihood of reaching minors.
- Prohibits "flavors and designs of cannabis-infused beverages, oils, and edibles that resemble or imitate candy flavors that are marketed to minors" and mandates that "cannabis products and their packaging are not designed to appeal to or be attractive to minors, including providing that they cannot be in the shape of cartoons, toys, animals, or people."
- Requires child-resistant packaging, consistent with federal regulations.

Third, I wanted to provide some background related to driving under the influence and cannabis legalization.

During the hearing on HB 360, a former House member spoke of a terrible car crash in Vermont in September 2018, which took the life of a man named Theodore Haley. This 4:30 a.m. crash, in which driver Keith Cushman reportedly fell asleep, was two years *prior* to Vermont legalizing cannabis sales. Only possession and home cultivation were legal at the time. The driver lived in Lebanon, New Hampshire — not Vermont. Cushman pled guilty to gross negligent operation with a fatality resulting and gross negligent operation with serious bodily injury resulting and received a suspended sentence. Cushman told law enforcement he used cannabis much earlier in the day, but that Haley and the other passenger had used cannabis in the car while he was driving. Authorities reportedly waited hours to test Cushman's blood for THC, and THC levels rapidly fall since impairment wears off quickly.

When Vermont legalized cannabis sales, two years later, it increased funding for drug recognition experts.

Unfortunately, there is no level of THC that is the equivalent of 0.08 BAC. As the National Highway Traffic Safety Administration explains, except with alcohol, "toxicology cannot produce per se proof of drug impairment. That is, the chemist can't analyze the blood or urine and come up with a number that 'proves' the person was or wasn't impaired."[3] Instead, police and prosecutors rely on the same type of totality of the circumstances burden of proof they do to secure convictions for everything else from theft to murder. In addition to the conduct that caused police to pull a driver over in the first place, officers testify about DRE examinations. DREs use a 12-step process to detect impaired drivers. The 12th step is a toxicological examination, and the results of that test are considered as part of the evidence.

A few points to consider about HB 639 and impaired drivers:

- New Hampshire residents are already using cannabis in large numbers and have ready access to it both within the state and across the border.
- Those who are irresponsible enough to drive while impaired by cannabis are already doing so. But under current New Hampshire law, they must cross the state's border to buy cannabis legally. Pushing sales across the border increases the odds people will drive long distances while impaired.
- HB 639 increases cannabis consumers' education about the dangers and legal risks of DUI, including in the required point-of-sale materials. The commission can also mandate retailers display posters about the dangers of DUI and funding can be directed to media campaigns warning consumers.
- HB 639 increases DRE training to detect impaired drivers.

- Comparing each state's pre-legalization road fatalities to 2019 data using NHTSA's Fatality Analysis Reporting System data shows an overall *decrease* in fatalities post-legalization.

Finally, an opponent cited major seizures of marijuana originating in Colorado as illustrative of her claim that the illicit market would persist regardless of legalization. Colorado was the first state to legalize cannabis in the nation and transitioning demand to a legal market does not happen overnight. However, it has been 10 years since the state legalized, and the vast majority of Coloradans' demand — at least in the counties and cities that aren't "dry" — is being met by the legal market. Indeed, Colorado saw $1.8 billion in legal cannabis sales in 2022 alone.

What *has* fueled some illicit activity within Colorado is the state's initial status as an island of legalization surrounded by prohibition states. Some of that demand was met by cannabis that originated on the legal or grey market in Colorado. To put a finer point on it, it has largely been *prohibition* in states like New Hampshire — not legalization in Colorado — that is fueling the demand that is driving the illicit market in Colorado and other legalization states. When I started working on cannabis policy the early 2000s, before any state legalized, much of the demand for cannabis in the U.S. was met by violent drug cartels based in Mexico. From 2006- 2012 alone, Mexican drug cartels were responsible for over 50,000 murders, including gruesome beheadings. As states have legalized, more and more of the demand is being met within the U.S. as evidenced by plummeting seizures of cannabis from Mexico.

Some states have a slower and less complete displacement of the illicit market based on their unique circumstances and policy choices. I currently live in California, where over-taxation, overregulation, local bans, some cities' failure to shut down openly operating illegal cannabis stores, and an excellent climate for agriculture — and longstanding status as cannabis exporter — have been among the challenges.

However, in time, after every state and the federal government has legalized, we can expect illicit cannabis to become as rare as moonshine and bootleggers are today. Until then, every state that legalizes and regulates cannabis sales reduces the demand for illicit cannabis.

Since your hearing on Thursday, one more state — Delaware — has joined the ranks of adult-use legalization states, bringing the total to 22. Minnesota may not be far behind.

Thank you for reading to the end my lengthy email and for your public service. If you would like to discuss any of these issues — or any aspect of the bill or cannabis legalization — I would be most happy to do so.

Sincerely,

Karen O'Keefe
Director of State Policies
Marijuana Policy Project/MPP Foundation
323-568-1078
www.mpp.org

[1] https://monitoringthefuture.org/wp-content/uploads/2022/08/mtf-vol1_2021.pdf p. 420. "While variability has been small over the course of the survey, perceived availability of marijuana is at or near historic lows in each grade. In 2019 in 8th grade it was 35% (tied with 2016, 2017, and 2018 for a historic low), in 10th grade it was 66% (the third lowest level recorded by the survey, just above the 2016 low), and in 12th grade it was at 78% (the lowest level ever recorded by the survey). This decline in perceived availability is somewhat counter-intuitive and unexpected, given the widespread adoption of medical marijuana laws and recent legalizing of recreational marijuana use for adults in several states."
[2] National Center on Addiction and Substance Abuse at Columbia University. 2012.
[3] "The Drug Recognition Expert School Student Manual," National Highway Traffic Safety Administration 2011.

New Futures Principles for Cannabis Policy and Regulation vs HB639 As Amended by the House (2nd) relative to the legalization and regulation of cannabis and making appropriations therefor.

Red- principle not in legislation,
Yellow- principle partially in legislation but needs revisions
Green- principle is in legislation
Recommended suggestions/language under Resolution column.

Principle #1 Protect Children and Youth	What's in 2023 legislation	Resolution
Prohibit any products, packaging or marketing that is attractive to children or youth, such as cannabis-infused beverages, flavored products intended for inhalation, flavored wrappers and products that resemble candy.	Included in bill-318-F:7 Regulation of Cannabis. The rules shall include the following: *Restrictions on the advertising, signage, marketing, and display of cannabis and cannabis products; prohibitions on marketing to minors, including marketing specifically related to social media; prohibition on cannabis products that are named, packaged, marketed, designed in a way that mimics or is likely to cause confusion with commercially available, trademarked non-cannabis products; prohibition on giveaways of cannabis, cannabis products, or cannabis accessories, including samples; prohibition on billboard advertising, sound trucks, or outdoor internally illuminated screen displays consistent with alcohol advertising prohibitions.*	
Require buffer zones between retail outlets and schools.	Included in bill-318-F:13 Restrictions on Location Near Schools. *No cannabis establishment shall operate, nor shall a prospective cannabis establishment apply for a*	

	license, if the establishment would be located within 1,000 feet of the property line of a pre-existing public or private pre-school, elementary, or secondary school.	
Principle #2 Promote Social Justice and Opportunities for Equity	**What's in 2023 legislation**	**Resolution**
Principle #3 Protect Public and Population Health	**What's in 2023 legislation**	**Resolution**
Inform vulnerable groups of the risks of use, such as low birth weight when used during pregnancy, psychosis and schizophrenia and other mental health effects.	Included in bill 318-F:14 Informational Materials and Warning Labels -*A retail cannabis store shall include an informational handout designed by the commission in consultation with the department with all cannabis and cannabis products sold to consumers...*	
Extend smoke-free air restrictions to consistently prohibit smoking and vaping cannabis indoors in workplaces and public spaces	Included in bill 318-F:3 Smoking or Vaping *Cannabis in Public Prohibited; Penalty. No person shall smoke or vape cannabis in a public place where the smoking or vaporizing of tobacco products is prohibited.*	
Principle #4 Ensure Appropriate Funding from Cannabis Revenue Directed to Efforts to Reduce Harms	**What's in 2023 Legislation?**	**Resolution**

Apply revenue for substance misuse education, prevention, treatment and recovery and ensure an informed, adequately paid behavioral health workforce.	Partially included- 126-A:98 Substance Abuse Prevention and Recovery Funds; *Ten percent of remaining funds, or $25,000,000, whichever is less, shall be credited to the substance abuse prevention and recovery fund in RSA 318-F:22.* This is after 80% has been spent toward education and pensions	Prioritize funding for substance misuse education, prevention, treatment and recovery.
Create mass media and social media campaigns from the start, before law is effective	318-F:21 Cannabis Fund Established. IV. *For the biennium ending June 30, 2025, the sum of $500,000 is hereby appropriated to the substance use prevention and recovery fund established in RSA 318-F:22 for the cost of developing and implementing a public education campaign prior to initiation of retail sales. Said sum shall be a charge against the fund.*	

- **Additional Issue**: House amended 318-F:7 Regulation of Cannabis. I.(o)(3) *Establishing the maximum amount of THC that may be included in each cannabis product serving* ***as 20 milligrams****, except that the commission may change this amount through rulemaking*; (states around NH range from 5-10mg)

April 13, 20323

Dear Sen. Abbas,

On behalf of NH Cannabis Association, I offer some proposed changes to HB 639 for consideration by the NH Senate Judiciary Committee. As we discussed, I have attempted to identify bill language that has the possibility for inadvertent consequences. I offer replacement language to avoid such impacts.

Section titles are in **bold;** suggested deletions appear in ~~strikeout;~~ and suggested additions are underlined. Suggested changes are followed by statements of rationale or by a comment.

R118-F:1 Definitions.
II. "Cannabis" means all parts of the plant of the genus cannabis containing over 0.3% THC on a dry weight basis, whether growing or not, ~~the seeds thereof~~, the resin extracted from any part of the plant, and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, ~~its seeds,~~ or its resin, including cannabis concentrate. "Cannabis" shall not include hemp as defined by Section 439-A:2, fiber produced from the stalks, oil, or cake made from the seeds of the plant, ~~sterilized~~ seeds of the plant ~~that is incapable of germination~~, non-intoxicating cannabinoids, including CBD and CBG, or the weight of any other ingredient combined with cannabis to prepare topical or oral administrations, food, drink, or other product.

Rationale #1: The addition of the phrase, "containing over 0.3% THC on a dry weight basis" makes it clear that only THC-containing cannabis products must be licensed and taxed, clarifying that CBD products and businesses will not be impacted by this legislation. This would also mean that intoxicating products made from hemp would be regulated as cannabis, if they contain over 0.3% THC on a dry weight basis.

Rationale #2: Deletion of "the seeds thereof" and "its seeds" from the definition of "cannabis" and deletion of "sterilized" and "that is incapable of germination" from the second sentence are proposed to make this section consistent with the Drug Enforcement Administration's January 6, 2022, official determination letter (attached as Addenda A) stating that cannabis seeds are "hemp," because they contain less than 0.3% THC. The proposed change also clarifies that cannabis seeds are not subject to the licensing and taxation provisions of this legislation, since they have been determined by the DEA to be "hemp." The addition of "as defined by Section 439-A:2" links this legislation to existing statute.

Rationale #3: Addition of the phrase, "non-intoxicating cannabinoids, including CBD and CBG" to the second sentence makes it clear that CBD, CBG and other non-intoxicating cannabinoid products will not be regulated as "cannabis" under this legislation.

R118-F:1 Definitions.
IV. "Cannabis accessory retailer" means an entity ~~licensed to~~ that sells cannabis accessories and paraphernalia

Rationale #4: Since this legislation does not establish licensing requirements for entities that sell cannabis accessories and paraphernalia, the definition needs to remove the phrase "licensed to" and replace it with the word "sells." Leaving the phrase as is could inadvertently impose licensing requirements on retailers who currently sell cannabis accessories without needing to be licensed by the state.

R118-F:1 Definitions.

V. "Cannabis cultivation facility" or "cultivation facility" means an entity registered to cultivate, prepare, and package cannabis, and sell cannabis to retail cannabis stores, to cannabis product manufacturing facilities, to alternative treatment centers, and to other cannabis cultivation facilities, but not to consumers. An entity licensed as a ~~A~~ cannabis cultivation facility shall not produce cannabis concentrates, tinctures, extracts, or other cannabis products unless it is also licensed as a product manufacturing facility.

Rationale #5: As written, the bill could prohibit cannabis cultivation facilities from ever producing processed cannabis products. The language should be changed to make it clear that a cultivation facility can also produce processed cannabis products, if it is also licensed as a product manufacturing facility. Cannabis cultivation facilities should be allowed to apply for and receive licenses to operate as cannabis product manufacturing facilities in addition to operating as cultivation facilities. The bill's authors intended to allow cannabis cultivation facilities to apply for and receive licenses to operate as cannabis product manufacturing facilities in addition to operating cultivation facilities. This should be clarified in this definition.

318-F:7 Regulation of Cannabis.

VII. No later than 36 months after the effective date of this section, the commission ~~shall~~may make written recommendations to the general court regarding the regulation of hemp including:

(a) What hemp products the commission ~~would~~may regulate;

(b) How the products ~~would~~may be regulated, including whether a license would be required and whether hemp processors and manufacturers should be licensed and regulated by the commission;

(c) Any license fees or other charges that ~~would~~may be assessed on hemp products and license fees assessed on hemp processors and manufacturers; and

(d) The resources required to regulate hemp processors, product manufacturers, hemp products, and the retail sale of intoxicating hemp products.

Rationale #6: This section should either be deleted or amended, as proposed. Inclusion of this section, as written, could inadvertently lead to the state needing to establish regulations, licenses, and possibly taxes, on hemp producers in NH, given that the bill uses the phrases "shall," "would regulate," and "would be regulated." Those terms are directives, ordering the Commission to make written recommendations to regulate hemp. The terms "shall" and "would" should be replaced by "may." If left unchanged, this section could also impact CBD manufacturers and retailers, since CBD is produced from hemp. (At the present time, hemp

producers in NH must be licensed by the USDA Hemp Program and must follow all USDA rules and regulations.)

318-B:2-c [Personal] Possession of Marijuana *by a Person Under 21 Years of Age*.
[I.] In this section:
[(a)] ***I.*** "Marijuana" includes the leaves, stems, and flowers~~, and seeds~~ of all species of the plant genus cannabis, but shall not include the resin extracted from any part of such plant and every compound, manufacture, salt, derivative, mixture, or preparation from such resin including hashish, and further, shall not include the mature stalks of such plant, fiber produced from such stalks, seeds, oil or cake made from the seeds of such plant, any other compound, manufacture, salt, derivative, mixture, or preparation of such mature stalks, fiber, oil or cake, or the sterilized seed of such plant which is incapable of germination.

Rationale #7: Deletion of "and seeds" is proposed to make this section consistent with the Drug Enforcement Administration's January 6, 2022, official determination letter (Addenda A) stating that cannabis seeds are "hemp," because they contain less than 0.3% THC.

Comment #1: HB 639, as amended by the Senate, should be merged with HB 431 to allow medical cannabis card holders to cultivate cannabis for personal consumption, or both bills should be passed independent of one another. Individuals and caregivers who hold medical cannabis cards are already registered with the DHHS and are subject to DHHS rules and regulations and should be allowed to grow their own medical cannabis, subject to possession limits.

Thank you for your consideration of these proposed changes to HB 639.

Respectfully submitted,

Jim Riddle
Policy Advisor, NH Cannabis Association
Owner, Lamb's Breath Seeds LLC

Review and input provided by Matt Simon, Prime ATC; Timothy Egan and Daryl Eames, NHCANN; and Karen O'Keefe, MPP.

BEFORE THE

STATE OF NEW HAMPSHRE

SENATE JUDICIARY COMMITTEE

April 20, 2023

TESTIMONY OF DANIEL ALLEGRETTI

HB 639

Daniel Allegretti
25 Toad Hill Road
Franconia, NH 03580
(603) 290-0040

Introduction

Chairman Carson, members of the committee, my name is Daniel Allegretti. I am a New Hampshire citizen, registered voter and a constituent residing in the Town of Franconia. My testimony today is entirely my own and I neither represent nor am being compensated by any other person or organization.

We are the Hole in the Donut

The principal objections to the legalization of cannabis for adult use center around concerns with crime, public safety and public health. Below I offer citations to some recent and compelling research on each of these topics to dispel many of the fears and misconceptions that have arisen in these areas. To support this bill, however, one need not resolve any of these admittedly legitimate concerns. That is because New Hampshire has now become the hole in the donut.

Maine, Massachusetts, Vermont and Canada have each authorized adult use cannabis possession, as well as its sale through regulated and licensed dispensaries. This development fundamentally undermines the assumption that the continued treatment of cannabis possession in New Hampshire as a violation of law will be a meaningful deterrent to the possession or use of cannabis within the State. Any adult residing in New Hampshire with a photo ID, access to a car and cash can cross the border and make a purchase of cannabis, wholly undetected. How then are we to enforce the law? Will the State Police stop and search every vehicle entering the State? If cannabis is already accessible and affordable through out of state purchase how then will defeating this bill serve the goals of public health or public safety? In my opinion the effort to restrict access to adult use cannabis in New Hampshire is a horse that has left the barn. HB639 recognizes this new reality. It affords adults in New Hampshire a liberty our neighbors already enjoy, regulates sales in a safe and not overly burdensome way and promotes in-state commerce. Whether you believe cannabis should have remained out of reach to our citizenry or not the reality is that it is now here and it is time for New Hampshire to stop denying the fact and to modernize our law accordingly.

On the issues of crime and public safety, I offer the following observations on current research.

Crime

A recent paper from the Ohio State University Drug Enforcement and Policy Center examines the current literature on the effects that liberalized policies regarding cannabis have had on crime and public safety.[1] The survey concludes that the impact of cannabis legalization has largely been more positive than negative in terms of crime, including decreases in violent and property crime[2], reductions in drug-related arrests[3], and an improvement in crime clearance rates[4].

Public Safety

Regarding traffic safety, a 2020 study assessed the effect of legalization on traffic fatalities in Colorado and Washington. Researchers[5] used a synthetic control approach with data on fatal traffic accidents between 2000 and 2016 and found little evidence that recreational legalization dramatically increased traffic fatalities. Specifically, by using synthetic control groups they were able to observe similar changes in marijuana- and alcohol-related traffic fatality rates, as well as a similar change in overall traffic fatalities, with or without legal marijuana.

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[1] Orsini, Maria M., Effects of Drug Policy Liberalization on Public Safety: A Review of the Literature (December 5, 2022). Ohio State Legal Studies Research Paper No. 746, Drug Enforcement and Policy Center, December 2022, Available at SSRN: https://ssrn.com/abstract=4294150 or http://dx.doi.org/10.2139/ssrn.4294150

[2] Gavrilova, Evelina, Takuma Kamada, and Floris Zoutman. 2019. "Is Legal Pot Crippling Mexican Drug Trafficking Organisations? The Effect of Medical Marijuana Laws on US Crime." The Economic Journal 129(617):375-407; Burkhardt, Jesse and Chris Goemans. 2019. "The Short-Run Effects of Marijuana Dispensary Openings on Local Crime." The Annals of Regional Science 63:163-189; and Dragone, Davide, Giovanni Prarolo, Paolo Vanin, and Giulio Zanella. 2019. "Crime and the Legalization of Recreational Marijuana." Journal of Economic Behavior and Organization 159:488-501.

[3] Grucza, Richard A., Mike Vuolo, Melissa J. Krauss, Andrew D. Plunk, Arpana Agrawal, Frank J. Chaloupka, and Laura J. Bierut. 2018. "Cannabis Decriminalization: A Study of Recent Policy Change in Five U.S. States." International Journal of Drug Policy 59:67-75; and Firth, Caislin L., Julie E. Maher, Julia A. Dilley, Adam Darnell, and Nicholas P. Lovrich. 2019. "Did Marijuana Legalization in Washington State Reduce Racial Disparities in Adult Marijuana Arrests?" Substance Use & Misuse 54(9):1582-1587.

[4] Makin, David A., Mikala R. Meize, Dale W. Willits, Mary K. Stohr, Craig Hemmens, Nicholas P. Lovrich, Alexis Nordman, and Duane Stanton. 2021. "The Impact of Recreational Marijuana Sales on Calls for Service: An Analysis of Neighbouring Cities." Policing and Society 31(7):848-862 and Wu, Guangzhen, Yongtao Li, and Xiaodong (Eric) Lang. 2022. "Effects of Recreational Marijuana Legalization on Clearance Rates for Violent Crimes: Evidence from Oregon." International Journal of Drug Policy 100(103528):1-6.

[5] Hansen, Benjamin, Keaton Miller, and Caroline Weber. 2020. "Early Evidence on Recreational Marijuana Legalization and Traffic Fatalities." Economic Inquiry 58(2):547-568.

Public Health

One of the largest and most recent studies on the public health effects of cannabis legalization found "greater risks of cannabis-related harms were associated with states where cannabis remains illicit compared to states where cannabis is regulated.[6]" Specifically, the authors found that states with medical or adult use cannabis showed:

- older age at cannabis first use;
- fewer days of cannabis use for those 16-20 years old; and
- fewer days of driving under the influence of cannabis in the past month.

The authors also concluded "there were no differences observed among the three state legalization statuses in terms of overall cannabis prevalence, cannabis use disorder prevalence, and overall health status.[7]"

Public Opinion in New Hampshire

One of the most respected surveys of public opinion in New Hampshire is the University of New Hampshire Granite State Poll. On the question of cannabis legalization, the poll released in February 2023 shows strong and continuing support for the legalization of adult recreational use. The most recent results show:

- 56% favor strongly.
- 15% favor somewhat.
- 11% neutral.
- 13% strongly oppose.
- 5% somewhat oppose.
- 1% unsure.

While polls are not infallible and public opinion may change over time, a margin of more than 2 to 1 is certainly hard to ignore.

Conclusion

[6] Solfis, Michael and Slade, Mackenzie, Cannabis Legalization and Public Health Outcomes, Regulatory determinants of Cannabis Outcomes Survey, Fall 2022, Cannabis Public Policy Consulting.

[7] Solfis & Slade at 1.

For the reasons stated above I urge the committee to vote ought to pass on HB 639.

NH Senate Judiciary Committee
Testimony of Emily Shanahan, C.P.S.
In opposition of HB 639 FN-A
April 20, 2023

Thank you for allowing me the opportunity to speak in opposition of HB 639 FN-A. My name is Emily Shanahan, I am a NH Certified Prevention Specialist and Coordinator of the NH Chapter of Smart Approaches to Marijuana, a coalition of individuals (medical doctors, employers, treatment providers, drug prevention professionals, business owners, employees, law enforcement officers, and parents) who believe that the health, safety, and economic harms of recreational cannabis legalization far outweigh the perceived social and economic benefits.

We have both decriminalized and legalized cannabis for medical purposes, so why do we NOW need to legalize for recreational use? With our state facing an opioid crisis, youth vaping epidemic, and mental health crisis why are we considering legalizing another addictive drug that has severe negative impacts on youth, families, our communities, and state? **WE NEED TO PREVENT DRUG USE, NOT ENCOURAGE IT.**

The U.S. Surgeon General issued an advisory on youth mental health stating "mental health challenges in children, adolescents, and young adults are real and they are widespread." By legalizing and commercializing cannabis, we are contributing to that problem. Cannabis, especially high-potency products, have been linked to depression, anxiety, thoughts of suicide, suicide attempts, suicide, and addiction (JAMA Psychiatry, 2020). According to the National Institute on Drug Abuse, people who begin using marijuana before age 18 are four to seven times more likely than adults to develop a marijuana use disorder due to rapid brain development during this critical time. Among youth receiving substance use disorder treatment, marijuana accounts for the largest percentage of admissions—almost 50% among those 12 to 17 years old.

Putting age limits and other safeguards on the legalization of cannabis for recreational use only reminds me of another huge public health concern, underage drinking. Although underage drinking is illegal for individuals under the age of 21, it remains the number one public health problem among youth. By legalizing cannabis, we are only contributing to another public health problem that science shows us is linked to many negative health outcomes.

As an expectant mother, I want my child to grow up in a state that puts the health and safety of its citizens above all else. Many people point out that we are surrounded by legal states, but does that mean we should join them in promoting bad public health and safety policy? New Hampshire is an oasis; an island amidst the public health crisis our neighboring states will be experiencing in the next 5-10 years. Let's work together to keep NH a state to be emulated through proper public health promotion. I ask that you please oppose HB 639 FN-A to help keep NH a productive oasis that promotes the health and safety of its citizens. Thank you for your consideration.

NH Senate Judiciary Committee
TESTIMONY of Elizabeth Brochu, M.Ed., CPS
April 20, 2023
In opposition of HB639

Good afternoon. My name is Elizabeth Brochu, and I am the Youth Services Director of Communities for Alcohol- and Drug-Free Youth (CADY) a central NH non-profit organization. I am also a NH Certified Prevention Specialist and the Substance Misuse Prevention Coordinator for Central NH.

I appreciate the opportunity to share my concerns regarding the important and concerning issues regarding HB639. I thank each committee member for your service to New Hampshire.

If passed into law, these bills will legalize and commercialize THC impairment, as well as child endangerment. I am going to use the term THC instead of cannabis; it is the THC that causes impairment and ultimately Cannabis Use Disorders (CUD). We have overwhelming quantitative and qualitative data from other states, that legalizing THC products causes direct harm to most vulnerable populations and increases accessibility and use for youth. THC (cannabis/marijuana) is a Schedule 1 drug because the intent in using THC products, in any form, is to become impaired. THC, the key ingredient in cannabis, alters the function of the hippocampus and frontal cortex: brain areas that enable a person to form new memories and shift his or her attention and focus. As a result, using cannabis/THC causes impaired thinking and interferes with a person's ability to learn and perform complicated tasks (NIDA). Impairment is guaranteed when someone uses THC products, especially with extracted products ranging from waxes, oils or dabs and other non-plant-based forms; if someone using cannabis does not get the desired "high" or impairment effect, the next step is to use more. The standard of THC is to feel the impairment effect. And, the more THC is used, and the younger a person starts using it, the more impairment problems, and more addiction problems (CUD).

The legal drugs currently sold for profit in NH, alcohol, and nicotine products, can be misused and have addictive tendencies. However, these legal drugs can be used and consumed without impairment effects. Alcohol is a beverage, and someone can consume an alcoholic beverage without becoming impaired. In fact, science confirms that an adult of legal drinking age can consume 1-2 standard drinks daily (1 standard drink = 0.6% of pure alcohol per beverage) and not become impaired or addicted. Nicotine products include many harmful chemicals, and yes are highly addictive, however when someone is using a nicotine product, they can perform tasks, operate machinery/vehicles, and are not under the influence or experiencing impairment. Research in Southern California looked at 350 drivers who showed 4 signs of impairment while driving: speeding, weaving, unsafe lane changes and crashes. 87% of these drivers had low levels of THC blood level (2-7nh/ml) and failed the field sobriety test.

By legalizing and commercializing cannabis, NH policymakers will be responsible for making impairment a priority over the health, safety, and wellbeing of its children and citizens. Please consider these serious consequences and vote ITL on HB369.

Thank you.

Elizabeth Brochu, M.Ed.
NH Certified Prevention Specialist

Hon. Robert J. Giuda
660 Beech Hill Rd.
Warren, NH 03279-4356
603-219-9643
rjwg75@gmail.com

April 20, 2023

NH Senate Judiciary Committee
Re: HB639

Good Afternoon, Honorable Members of the Senate Judiciary Committee.

For the record, I am Bob Giuda, former State Senator and current resident of Warren, NH, testifying in opposition to HB639. By way of background, I spent several years as a Special Agent of the FBI, assigned to the Organized Crime Drug Enforcement Task Force based in Denver, Colorado, working against, at the time, the most powerful drug cartel in the world, the Medellin Cartel, which was manufacturing and importing cocaine into the US, destroying lives, families, businesses, and institutions.

As a former member of the Senate, I believe it's imperative to consider the "Unintended Consequences" of proposed public policy decisions, so I offer the following for your consideration. All of the facts cited herein are substantiated by attachments provided to the clerk.

- Has any consideration been given to the drastic increase in Emergency Room and hospitalization costs which will occur in our Medicaid population, or to the cost of substance abuse and mental health outreach and recovery programs for which the state holds shared or exclusive financial responsibility?

- Are we willing to risk the 50% increase in automobile fatalities which the Colorado DoT published, where marijuana is present in autopsy toxicology screens?

- Are we willing to accept the invasion of international cartels and the horrific consequences, including execution-style murders, such as occurred in OK?

- Are you, as an elected member of the New Hampshire Senate, sworn to uphold both Constitutions and federal and state law, willing to ignore the prohibition on nullification in the US Constitution, and violate federal law defining marijuana as an illegal controlled substance?

We would be remiss if we did not shed light on the exploding black market for marijuana, which instead of declining as predicted, has instead flourished in states which have legalized pot, and is overwhelming regulation and enforcement in every one of those states. For example,

In California, Curaleaf Holdings, one of the world's largest pot conglomerates, is pulling most of its operations out of California, Oregon, and Colorado, because "the current price compression caused by a lack of meaningful enforcement of the illicit market prevents us from generating an acceptable return on our investments." California's governor had to call out the National Guard in a futile attempt to destroy illegal grow sites. And Garcia Hand Picked, created by the late musician's family, has also quit the California market. Both these actions are further imploding state revenue projections.

Now, stunningly, because of the abysmal ROI, the CA legislature is considering a bill to export California's excess marijuana to other legal states to try to shore up its disintegrating revenues.

Former Colorado Gov., now US Senator John Hikkenlooper's remarks are instructive. *"We get $200 million a year in tax revenue, which you know, we're a $30 billion budget, so it's a drop in the bucket – it's not going to pay for early childhood education or solve any big social ill..."* And former Colorado Drug Czar Andrew Friedman said, *"You do not legalize for taxation. It's a myth. You are not going to pave streets. You are not going to be able to pay teachers. The big red herring is the whole thing that the tax revenue will solve a bunch of crises. But it won't."*

In every legalized state, enforcement and regulation efforts are utterly inadequate, as illegal pot shops proliferate, reappearing only weeks after being shut down. As an example, there are currently 1,400 illegal pot shops in NYC.

International cartels are buying houses and buildings and converting them into illegal grow houses. China is a leader among these cartels, and as you know, is using every means possible to bring our nation to its knees. Oklahoma, where 4 were recently murdered in an execution-style killing by the Chinese cartel, is now the nation's leading exporter of black market marijuana throughout the United States.

In December, 2000, on Organization Day for my first term in the NH House, then-Speaker Donna Sytek gave me a slip of paper on which was printed the following quote by Sir Edmond Burke. I still have that paper. It says, "Your representative owes you, not his industry only, but his judgment; and he betrays, instead of serving you, if he sacrifices it to your opinion."

We as citizens and you who serve in public office are charged both by our constitution and hopefully by your conscience to support policies that first, do no harm, and second, advance the best interests of the society which has entrusted you with its welfare. It is greatly concerning that many so entrusted do not make the critical distinction between liberty and license, and between freedom and hedonism.

As a Senator, sworn to protect the public good, can you in good conscience tell your constituents that legalizing marijuana is in the best interests of our children, families, businesses, and institutions, when every child advocacy, substance abuse recovery, law enforcement, psychiatric, and medical agency in the state is strongly opposed?

I close by restating the questions presented by Bob Dunn from the Diocese of Manchester:

1. Will the passage of this law protect our youth and improve family life?
2. Will the passage of this law improve the public health?
3. Will the passage of this law improve communities?
4. Will the passage of this law make people better workers and strengthen our business workforce?"

The answer to these questions is a resounding "No!"

Please vote ITL on HB639, and keep New Hampshire free from the scourge of legalized marijuana that is destroying children, families, businesses, and institutions in those states that are now foundering under exploding medical, mental health, and social services demands because they bought into the false narrative of the Addiction-for-Profit industry.

Thank you for your consideration.

Respectfully,



Matthew Schelzi

From: Matt Simon <matt.simon@primeatc.com>
Sent: Tuesday, April 25, 2023 2:11 PM
To: Sharon Carson; William Gannon; Daryl Abbas; Becky Whitley; Shannon Chandley; Matthew Schelzi
Cc: Jason Osborne; Matt Wilhelm
Subject: follow-up re: HB 639

Follow Up Flag: Follow up
Flag Status: Flagged

Caution! This message was sent from outside your organization.

Dear Members of the Senate Judiciary Committee,

Thank you for your time and your careful consideration of cannabis legislation.

I hope you have had an opportunity to review the email sent by MPP's Karen O'Keefe following up on last week's hearing on HB 639. She shared data from objective sources indicating that (1) adolescent use has not increased following legalization, (2) availability of cannabis to adolescents has actually *decreased* in recent years, and (3) "toxicology cannot produce *per se* proof of drug impairment" (NHTSA).

If you haven't had an opportunity to read her email yet, I strongly recommend it.

In addition to these points, I would like to comment on three issues that were brought forward during testimony: prosecution of THC-impaired drivers, credibility of Rocky Mountain HIDTA reports, and Second Amendment rights for cannabis consumers.

(1) Prosecuting THC-impaired Drivers: Most states have not adopted *per se* THC limits because they are arbitrary and not justified by scientific evidence.

As co-director for the campaign to legalize cannabis in Vermont, I participated in several legislative hearings that were focused entirely on THC-impaired driving. These hearings included testimony from policy experts, leading researchers, and regulators from states where cannabis is legal.

One thing we heard during this testimony is that Vermont's conviction rates were around 80% when a certified drug recognition expert (DRE) testified in court that a driver was impaired by THC or another illicit drug. I don't know what the percentages might be in New Hampshire, but this testimony seemed to strongly contradict the claim that drivers can't be charged for THC-impaired driving without a *per se* limit.

The problem identified by policymakers in Vermont was that a DRE was not always available in all regions of the state when needed to evaluate a driver for impairment. A broad consensus emerged that, regardless of whether legalization passed or not, Vermont should increase the number of law enforcement officers who have DRE training. This was considered important for protecting the public from drivers impaired by not only THC, but by all drugs other than alcohol.

Vermont legislators considered the possibility of adopting a *per se* limit, but they rejected this idea after coming to understand that there is no scientific basis for doing so. Instead, they funded more DRE training for officers (which HB 639 includes).

If you're interested in reading more about the science of THC impairment and detection, here's a study funded by the Department of Justice that concluded "THC levels in biofluid were not reliable indicators of marijuana intoxication."

(2) Rocky Mountain HIDTA Reports: These reports are funded by the Office of National Drug Control Policy (a.k.a. "the Drug Czar's office"), and ONDCP is required by law to oppose the legalization of cannabis.

If the statistics presented by RMHIDTA reports sound scary, that's because they are designed to be.

Specifically, according to Section 704 of the 1998 Office of National Drug Control Reauthorization Act, part b: Responsibilities of the Director, the office "shall ensure that no federal funds appropriated to the Office of National Drug Control Policy shall be expended for any study or contract relating to the legalization (for a medical use or any other use) of a substance listed in schedule I of section 202 of the Controlled Substances Act (21 U.S.C. 812) and take such actions necessary to oppose any attempt to legalize the use of a substance (in any form) that – (A) is listed in schedule I of section 202 of the Controlled Substances Act (21 U.S.C. 812)."

John Hudak, a former senior fellow at the Brookings Institute, has publicly described RMHIDTA reports as "garbage" and noted that they are "notorious for using data out of context or drawing grand conclusions that data ultimately do not support."

Here is an article that contains more info.

(3) Second Amendment Rights: Two federal judges have recently ruled that the federal prohibition on firearm possession by cannabis consumers is unconstitutional.

I agree that individuals should be informed about the fact that cannabis remains federally illegal and consumers are still discriminated against in certain ways by the federal government. However, the legal issues associated with firearm ownership are complex.

First, N.H. law does not prohibit cannabis consumers from owning firearms. Federal law does discriminate against cannabis consumers in this regard, but this law has proven to be largely unenforceable in practice. And in recent months, two federal judges have ruled that this federal prohibition is, in fact, unconstitutional. Those court rulings are embedded in articles here and here.

As Judge Kathleen Cardone wrote in her ruling on the most recent case, "It strains credulity to believe that taking part in such a widespread practice can render an individual so dangerous or untrustworthy that they must be stripped of their Second Amendment rights."

On the basis of these court rulings, it seems possible that federal policy could change before HB 639 can be implemented. And even if federal policy does not change, Granite Staters who own firearms should be free to assess the legal risks associated with using cannabis and make their own decisions.

Please don't hesitate to let me know if you have additional questions.

Sincerely,

Matt

--
Matt Simon
Director of Public and Government Relations
Prime Alternative Treatment Centers of NH
matt.simon@primeatc.com

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Matthew Schelzi

From: Cathy G <cathyanne603@yahoo.com>

Sent: Wednesday, April 26, 2023 7:56 PM
To: Sharon Carson; William Gannon; Daryl Abbas; Becky Whitley; Shannon Chandley
Cc: Matthew Schelzi
Subject: HB639
Attachments: imprimis.hillsdale.edu-Marijuana Mental Illness and Violence.pdf

Caution! This message was sent from outside your organization.

Good evening,

In the summer of 2019 I was at a backyard picnic and the topic of legalizing marijuana came up.

There were opinions on the both sides of the issue but there was one insistent guest who kept begging us all to read an article that she had seen regarding marijuana and the side effects no one was talking about.

I finally had the opportunity to read it, but then, the world turned upside down and it left my memory. Last week I saw to my dismay, that HB639 has passed the House and was now in the Judiciary committee.

Guessing I am very late to the game here, but I am seriously asking for you to read and consider the article that I had finally forgotten about until now - it is impactful and worth your time. It was eye opening for me personally.

Right now in New Hampshire we are dealing with more and more fentanyl deaths. There seem to be more and more traffic accidents - distracted and impaired drivers. Do we really want or need to add legally stoned drivers to the streets as well?

I drive to my office in Kittery and pass multiple cannabis sale locations. I drive to see my brother in Mass and see billboards advertising the Marijuana shop at the next exit. Do we REALLY need rows of cannabis establishments and pot billboards in our beautiful little state?

But regardless of the aesthetics of legalization and what changes to a landscape it may bring, **I challenge each one of you to open and read the attached article and ask yourselves why we never hear about the things Alex Berenson discovers and reveals in this article!**

We know NH also has a mental health crisis. Do we need it exacerbated? Do we need more domestic violence?

Do we really NEED marijuana to be legalized?

Thank you for your time & consideration.

Cathleen Gannon

Dover, NH

Marijuana, Mental Illness, and Violence

imprimis.hillsdale.edu/marijuana-mental-illness-violence/

Alex Berenson

January 15, 2019



The following is adapted from a speech delivered on January 15, 2019, at Hillsdale College's Allan P. Kirby, Jr. Center for Constitutional Studies and Citizenship in Washington, D.C.

Seventy miles northwest of New York City is a hospital that looks like a prison, its drab brick buildings wrapped in layers of fencing and barbed wire. This grim facility is called the Mid-Hudson Forensic Psychiatric Institute. It's one of three places the state of New York sends the criminally mentally ill—defendants judged not guilty by reason of insanity.

Until recently, my wife Jackie—Dr. Jacqueline Berenson—was a senior psychiatrist there. Many of Mid-Hudson's 300 patients are killers and arsonists. At least one is a cannibal. Most have been diagnosed with psychotic disorders like schizophrenia that provoked them to violence against family members or strangers.

A couple of years ago, Jackie was telling me about a patient. In passing, she said something like, *Of course he'd been smoking pot his whole life.*

Of course? I said.

Yes, they all smoke.

So marijuana causes schizophrenia?

I was surprised, to say the least. I tended to be a libertarian on drugs. Years before, I'd covered the pharmaceutical industry for *The New York Times.* I was aware of the claims about marijuana as medicine, and I'd watched the slow spread of legalized cannabis without much interest.

Jackie would have been within her rights to say, *I know what I'm talking about, unlike you.* Instead she offered something neutral like, *I think that's what the big studies say. You should read them.*

So I did. The big studies, the little ones, and all the rest. I read everything I could find. I talked to every psychiatrist and brain scientist who would talk to me. And I soon realized that in all my years as a journalist I had never seen a story where the gap between insider and outsider knowledge was so great, or the stakes so high.

I began to wonder why—with the stocks of cannabis companies soaring and politicians promoting legalization as a low-risk way to raise tax revenue and reduce crime—I had never heard the truth about marijuana, mental illness, and violence.

***

Over the last 30 years, psychiatrists and epidemiologists have turned speculation about marijuana's dangers into science. Yet over the same period, a shrewd and expensive lobbying campaign has pushed public attitudes about marijuana the other way. And the effects are now becoming apparent.

Almost everything you think you know about the health effects of cannabis, almost everything advocates and the media have told you for a generation, is wrong.

They've told you marijuana has many different medical uses. In reality marijuana and THC, its active ingredient, have been shown to work only in a few narrow conditions. They are most commonly prescribed for pain relief. But they are rarely tested against other pain relief drugs like ibuprofen—and in July, a large four-year study of patients with chronic pain in Australia showed cannabis use was associated with *greater* pain over time.

They've told you cannabis can stem opioid use—"Two new studies show how marijuana can help fight the opioid epidemic," according to Wonkblog, a *Washington Post* website, in April 2018— and that marijuana's effects as a painkiller make it a potential substitute for opiates. In reality, like alcohol, marijuana is too weak as a painkiller to work for most people who truly *need* opiates, such as terminal cancer patients. Even cannabis advocates, like Rob Kampia, the co-founder of the Marijuana Policy Project, acknowledge that they have always viewed medical marijuana laws primarily as a way to protect recreational users.

As for the marijuana-reduces-opiate-use theory, it is based largely on a single paper comparing overdose deaths by state before 2010 to the spread of medical marijuana laws—and the paper's finding is probably a result of simple geographic coincidence. The opiate epidemic began in Appalachia, while the first states to legalize medical marijuana were in the West. Since 2010, as both the epidemic and medical marijuana laws have spread nationally, the finding has vanished. And the United States, the Western country with the most cannabis use, also has by far the worst problem with opioids.

Research on individual users—a better way to trace cause and effect than looking at aggregate state-level data—consistently shows that marijuana use leads to other drug use. For example, a January 2018 paper in the *American Journal of Psychiatry* showed that people who used cannabis in 2001 were almost three times as likely to use opiates three years later, even after adjusting for other potential risks.

Most of all, advocates have told you that marijuana is not just safe for people with psychiatric problems like depression, but that it is a potential treatment for those patients. On its website, the cannabis delivery service Eaze offers the "Best Marijuana Strains and Products for Treating Anxiety." "How Does Cannabis Help Depression?" is the topic of an article on Leafly, the largest cannabis website. But a mountain of peer-reviewed research in top medical journals shows that marijuana can cause or worsen severe mental illness, especially psychosis, the medical term for a break from reality. Teenagers who smoke marijuana regularly are about three times as likely to develop schizophrenia, the most devastating psychotic disorder.

After an exhaustive review, the National Academy of Medicine found in 2017 that "cannabis use is likely to increase the risk of developing schizophrenia and other psychoses; the higher the use, the greater the risk." Also that "regular cannabis use is likely to increase the risk for developing social anxiety disorder."

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Over the past decade, as legalization has spread, patterns of marijuana use—and the drug itself—have changed in dangerous ways.

Legalization has not led to a huge increase in people using the drug casually. About 15 percent of Americans used cannabis at least once in 2017, up from ten percent in 2006, according to a large federal study called the National Survey on Drug Use and Health. (By contrast, about 65 percent of Americans had a drink in the last year.) But the number of Americans who use cannabis *heavily* is soaring. In 2006, about three million Americans reported using cannabis at least 300 times a year, the standard for daily use. By 2017, that number had nearly tripled, to eight million, approaching the twelve million Americans who drank alcohol every day. Put another way, one in 15 drinkers consumed alcohol daily; about one in five marijuana users used cannabis that often.

Cannabis users today are also consuming a drug that is far more potent than ever before, as measured by the amount of THC—delta-9-tetrahydrocannabinol, the chemical in cannabis responsible for its psychoactive effects—it contains. In the 1970s, the last time this many Americans used cannabis, most marijuana contained less than two percent THC. Today, marijuana routinely contains 20 to 25 percent THC, thanks to sophisticated farming and cloning techniques—as well as to a demand by users for cannabis that produces a stronger high more quickly. In states where cannabis is legal, many users prefer extracts that are nearly pure THC. Think of the difference between near-beer and a martini, or even grain alcohol, to understand the difference.

These new patterns of use have caused problems with the drug to soar. In 2014, people who had diagnosable cannabis use disorder, the medical term for marijuana abuse or addiction, made up about 1.5 percent of Americans. But they accounted for eleven percent of all the psychosis cases in emergency rooms—90,000 cases, 250 a day, triple the number in 2006. In states like Colorado, emergency room physicians have become experts on dealing with cannabis-induced psychosis.

Cannabis advocates often argue that the drug can't be as neurotoxic as studies suggest, because otherwise Western countries would have seen population-wide increases in psychosis alongside rising use. In reality, accurately tracking psychosis cases is impossible in the United States. The government carefully tracks diseases like cancer with central registries, but no such registry exists for schizophrenia or other severe mental illnesses.

On the other hand, research from Finland and Denmark, two countries that track mental illness more comprehensively, shows a significant increase in psychosis since 2000, following an increase in cannabis use. And in September of last year, a large federal survey found a rise in serious mental illness in the United States as well, especially among young adults, the heaviest users of cannabis.

According to this latter study, 7.5 percent of adults age 18-25 met the criteria for serious mental illness in 2017, double the rate in 2008. What's especially striking is that adolescents age 12-17 don't show these increases in cannabis use and severe mental illness.

A caveat: this federal survey doesn't count individual cases, and it lumps psychosis with other severe mental illness. So it isn't as accurate as the Finnish or Danish studies. Nor do any of these studies *prove* that rising cannabis use has caused population-wide increases in psychosis or other mental illness. The most that can be said is that they offer intriguing evidence of a link.

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Advocates for people with mental illness do not like discussing the link between schizophrenia and crime. They fear it will stigmatize people with the disease. "Most people with mental illness are not violent," the National Alliance on Mental Illness (NAMI) explains

on its website. But wishing away the link can't make it disappear. In truth, psychosis is a shockingly high risk factor for violence. The best analysis came in a 2009 paper in *PLOS Medicine* by Dr. Seena Fazel, an Oxford University psychiatrist and epidemiologist. Drawing on earlier studies, the paper found that people with schizophrenia are five times as likely to commit violent crimes as healthy people, and almost 20 times as likely to commit homicide.

NAMI's statement that most people with mental illness are not violent is of course accurate, given that "most" simply means "more than half"; but it is deeply misleading. Schizophrenia is rare. But people with the disorder commit an appreciable fraction of all murders, in the range of six to nine percent.

"The best way to deal with the stigma is to reduce the violence," says Dr. Sheilagh Hodgins, a professor at the University of Montreal who has studied mental illness and violence for more than 30 years.

The marijuana-psychosis-violence connection is even stronger than those figures suggest. People with schizophrenia are only moderately more likely to become violent than healthy people when they are taking antipsychotic medicine and avoiding recreational drugs. But when they use drugs, their risk of violence skyrockets. "You don't just have an increased risk of one thing—these things occur in clusters," Dr. Fazel told me.

Along with alcohol, the drug that psychotic patients use more than any other is cannabis: a 2010 review of earlier studies in *Schizophrenia Bulletin* found that 27 percent of people with schizophrenia had been diagnosed with cannabis use disorder in their lives. And unfortunately—despite its reputation for making users relaxed and calm—cannabis appears to provoke many of them to violence.

A Swiss study of 265 psychotic patients published in *Frontiers of Forensic Psychiatry* last June found that over a three-year period, young men with psychosis who used cannabis had a 50 percent chance of becoming violent. That risk was four times higher than for those with psychosis who didn't use, even after adjusting for factors such as alcohol use. Other researchers have produced similar findings. A 2013 paper in an Italian psychiatric journal examined almost 1,600 psychiatric patients in southern Italy and found that cannabis use was associated with a ten-fold increase in violence.

The most obvious way that cannabis fuels violence in psychotic people is through its tendency to cause paranoia—something even cannabis advocates acknowledge the drug can cause. The risk is so obvious that users joke about it and dispensaries advertise certain strains as less likely to induce paranoia. And for people with psychotic disorders, paranoia can fuel extreme violence. A 2007 paper in the *Medical Journal of Australia* on 88 defendants who had committed homicide during psychotic episodes found that most believed they were in danger from the victim, and almost two-thirds reported misusing cannabis—more than alcohol and amphetamines combined.

Yet the link between marijuana and violence doesn't appear limited to people with preexisting psychosis. Researchers have studied alcohol and violence for generations, proving that alcohol is a risk factor for domestic abuse, assault, and even murder. Far less work has been done on marijuana, in part because advocates have stigmatized anyone who raises the issue. But studies showing that marijuana use is a significant risk factor for violence have quietly piled up. Many of them weren't even designed to catch the link, but they did. Dozens of such studies exist, covering everything from bullying by high school students to fighting among vacationers in Spain.

In most cases, studies find that the risk is at least as significant as with alcohol. A 2012 paper in the *Journal of Interpersonal Violence* examined a federal survey of more than 9,000 adolescents and found that marijuana use was associated with a doubling of domestic violence; a 2017 paper in *Social Psychiatry and Psychiatric Epidemiology* examined drivers of violence among 6,000 British and Chinese men and found that drug use—the drug nearly always being cannabis—translated into a five-fold increase in violence.

Today that risk is translating into real-world impacts. Before states legalized recreational cannabis, advocates said that legalization would let police focus on hardened criminals rather than marijuana smokers and thus reduce violent crime. Some advocates go so far as to claim that legalization *has* reduced violent crime. In a 2017 speech calling for federal legalization, U.S. Senator Cory Booker said that "states [that have legalized marijuana] are seeing decreases in violent crime." He was wrong.

The first four states to legalize marijuana for recreational use were Colorado and Washington in 2014 and Alaska and Oregon in 2015. Combined, those four states had about 450 murders and 30,300 aggravated assaults in 2013. Last year, they had almost 620 murders and 38,000 aggravated assaults—an increase of 37 percent for murders and 25 percent for aggravated assaults, far greater than the national increase, even after accounting for differences in population growth.

Knowing exactly how much of the increase is related to cannabis is impossible without researching every crime. But police reports, news stories, and arrest warrants suggest a close link in many cases. For example, last September, police in Longmont, Colorado, arrested Daniel Lopez for stabbing his brother Thomas to death as a neighbor watched. Daniel Lopez had been diagnosed with schizophrenia and was "self-medicating" with marijuana, according to an arrest affidavit.

In every state, not just those where marijuana is legal, cases like Lopez's are far more common than either cannabis or mental illness advocates acknowledge. Cannabis is also associated with a disturbing number of child deaths from abuse and neglect—many more than alcohol, and more than cocaine, methamphetamines, and opioids combined—according to reports from Texas, one of the few states to provide detailed information on drug use by perpetrators.

These crimes rarely receive more than local attention. Psychosis-induced violence takes particularly ugly forms and is frequently directed at helpless family members. The elite national media prefers to ignore the crimes as tabloid fodder. Even police departments, which see this violence up close, have been slow to recognize the trend, in part because the epidemic of opioid overdose deaths has overwhelmed them.

So the black tide of psychosis and the red tide of violence are rising steadily, almost unnoticed, on a slow green wave.

***

For centuries, people worldwide have understood that cannabis causes mental illness and violence—just as they've known that opiates cause addiction and overdose. Hard data on the relationship between marijuana and madness dates back 150 years, to British asylum registers in India. Yet 20 years ago, the United States moved to encourage wider use of cannabis and opiates.

In both cases, we decided we could outsmart these drugs—that we could have their benefits without their costs. And in both cases we were wrong. Opiates are riskier, and the overdose deaths they cause a more imminent crisis, so we have focused on those. But soon enough the mental illness and violence that follow cannabis use will also be too widespread to ignore.

Whether to use cannabis, or any drug, is a personal decision. Whether cannabis should be legal is a political issue. But its precise legal status is far less important than making sure that anyone who uses it is aware of its risks. Most cigarette smokers don't die of lung cancer. But we have made it widely known that cigarettes cause cancer, full stop. Most people who drink and drive don't have fatal accidents. But we have highlighted the cases of those who do.

We need equally unambiguous and well-funded advertising campaigns on the risks of cannabis. Instead, we are now in the worst of all worlds. Marijuana is legal in some states, illegal in others, dangerously potent, and sold without warnings everywhere.

But before we can do anything, we—especially cannabis advocates and those in the elite media who have for too long credulously accepted their claims—need to come to terms with the truth about the science on marijuana. That adjustment may be painful. But the alternative is far worse, as the patients at Mid-Hudson Forensic Psychiatric Institute—and their victims—know.

Matthew Schelzi

From: Jim Riddle <jimriddle56@gmail.com>
Sent: Monday, May 8, 2023 7:27 AM
To: Sharon Carson; William Gannon; Shannon Chandley; Becky Whitley; Daryl Abbas; Matthew Schelzi
Subject: Cannabis and Hemp Expo

Dear Sen. Carson and members of the committee,

This weekend, my wife and I attended the Vermont Cannabis and Hemp Expo near Burlington, VT. I was impressed by the turnout, which exceeded 2000 attendees. I was even more impressed by the number of businesses that had exhibits at the Expo.

In addition to cultivators and dispensaries, there were exhibits by banks, insurance companies, greenhouse builders, farm suppliers, labeling and packaging companies, security services, web designers, seed companies, cosmetic brands, accounting and engineering, State agencies, universities and much more. The Expo was abuzz with economic activity. I even met folks from NH companies who are investing in the Vermont market.

This week, with your leadership, we have a chance to keep cannabis dollars in our state, while capturing revenue for drug abuse prevention and treatment. We have a chance to stop unnecessary arrests and incarceration, and re-direct police resources to focus on real crimes.

I urge you to send HB639 to the full Senate with a unanimous, bipartisan vote.

Thank you for you consideration.

Jim Riddle
Hillsborough, NH
507-429-7959

California's Marijuana Paradise Lost - WSJ

The Editorial BoardFeb. 7, 2023 6:36 pm ET



California voters in 2016 approved a ballot measure allowing the cultivation, sale and possession of pot for recreational use. Marijuana is classified as a Schedule I drug under the federal Controlled Substances Act, which means it has a high potential for abuse and is illegal to possess, manufacture and sell under federal law.

But Big Pot has persuaded state lawmakers and voters in 21 states that the drug is no greater danger to public health than alcohol, and legalizing it for recreational use within their borders

will boost jobs and tax revenue. Former Attorney General William Barr once said this was "almost like a back door nullification of federal law."

California has been at the forefront of this experiment, and it's not turning out well. High taxes and regulation have made it harder for state-licensed businesses to make money. Significantly higher prices in the state-regulated market have led to a boom in the black market controlled by drug cartels, which has led to violence and water theft.

At the same time, California has struggled to enforce its pot laws. One reason is that the 2016 ballot measure reduced penalties for most pot offenses because of their alleged disparate impact on minorities. Illegal pot plantations have mushroomed.

Curaleaf Holdings, one of the world's largest pot conglomerates, last month said it is pulling most of its operations out of California, Colorado and Oregon because "the current price compression caused by a lack of meaningful enforcement of the illicit market prevent us from generating an acceptable return on our investments."

Garcia Hand Picked, which was created by the deceased musician Jerry Garcia's family, has also bailed on California. "California cannabis debt bubble on verge of bursting," an industry report warned last November. Financial challenges have "led many businesses to shuffle payments around, delay payments to vendors, or not to pay at all."

All of this has Democrats in Sacramento scrambling to bail out their homegrown industry. Last fall they passed a law that would lift the state ban on marijuana exports and authorize the Governor subject to certain conditions to enter into compacts with other states where marijuana is legal to provide "additional legal outlets for cannabis and cannabis products produced in California."

The state Department of Cannabis Control recently issued a memo arguing the federal government cannot "compel states to prohibit commercial cannabis activity as a matter of their own state laws." While the feds would still be able to prosecute pot businesses, the agency claimed an interstate compact would pose no legal risk to the state.

Imagine if Texas were to form an interstate compact to sell firearms that are illegal under federal law. Some conservatives argue that states should be allowed to regulate pot within their borders. But California is proposing an interstate market to sell a product that is illegal under federal law, if the Biden Administration chose to enforce it. **None of this is working like the pot promoters promised.**

https://www.wsj.com/articles/california-marijuana-pot-black-market-interstate-compact-export-11675810453?mod=opinion_lead_pos3

Marijuana tax revenue comes up short

- Tax revenue from marijuana accounts for less than one percent of state revenues where the drug is "legal."
- Almost every state that legalized marijuana came up short on initial revenue targets. In Massachusetts, the first year of tax revenue from marijuana sales was less than half of the anticipated $63M (Politico, 2019).
- Even as marijuana markets grow, research shows tax revenue quickly tapers off (Pew Trusts, 2019).
- Revenue projections are unreliable. As states seek to fill budget gaps, researchers advise against using marijuana tax revenue to fill long-term holes (Pew Trusts, 2019).

State	Percent of Budget
Colorado	1.30%
California	0.63%
Washington	1.03%
Alaska	0.29%
Oregon	0.30%
Nevada	0.56%

*Percentages of revenues are rough estimates calculated based on reported figures from individual states.

Colorado Governor John Hickenlooper, 2018:

"We get $200 million a year in tax revenue, which you know, we're a $30 billion budget, so it's a drop in the bucket – it's not going to pay for early childhood education or solve any big social ill..."

Director, Marijuana Coordination (CO; Drug Czar), Andrew Friedman, 2015:

"You do not legalize for taxation. It's a myth. You are not going to pave streets. You are not going to be able to pay teachers. The big red herring is the whole thing that the tax revenue will solve a bunch of crises. But it won't."

Revenues versus reality

Taxes on marijuana will not compensate for the deficits in state budgets:

- Colorado, the state with the oldest marijuana market, is the only state in the nation without a rainy-day fund.

- The budget deficits in states with mature marijuana markets comprise a combined $71B (CA, CO, NV, OR, WA). The tax revenues from marijuana barely combine for $2.5B.

The industry wants more:

- While the marijuana tax revenue in California still fails to meet its target, industry proponents are pushing legislators to reduce taxes (LA Times, 2020).

- These tactics are not new: Big Tobacco has been lobbying for tax cuts for decades and has adapted to more stringent policies by strategically aligning with trade groups for convenience stores and grocers, among others (Tobacco Free Kids, 2012). The same will happen with marijuana.

The economic and social costs of commercial marijuana (Centennial Institute, 2018*):

- For every dollar gained in tax revenue, Coloradans spent approximately $4.50 to mitigate the effects of legalization

- Costs related to the healthcare system and from high school drop-outs are the largest cost contributors.

- The bad news is that the costs associated with commercial marijuana are only going to go up as the long-term health consequences have not been fully determined. Like tobacco, commercial marijuana is likely to have health consequences that we won't be able to determine for decades.

  (See Report link below for other key findings)

Sources:

https://www.politico.com/agenda/story/2019/10/14/marijuana-tax-revenue-001062/

https://www.pewtrusts.org/-/media/assets/2019/08/marijuana-brief_v2.pdf

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https://www.tobaccofreekids.org/press-releases/2012_03_05_report

*Be aware, the Centennial Report, as you would expect, is obsessively criticized by pro-marijuana as not rigorous and it's from an anti-marijuana Christian Institute. However, the research firm used to create the report is QREM, a third-party evaluation firm serving non-profits and many of Colorado's most reputable foundations.

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https://www.wsj.com/articles/oklahoma-has-become-a-top-source-of-black-market-weed-11671990991?mod=hp_lead_pos11

Oklahoma Has Become a Top Source of Black-Market Weed

After adopting permissive marijuana-growing policies, officials try to tighten rules in response to crime and complaints

Adolfo FloresDec. 26, 2022 8:00 am ET, Wall Street Journal

COYLE, Okla.—Finding marijuana crops in Oklahoma these days is easy, said Logan County Sheriff's Deputy Chris Tillman, as he stared at rows of cannabis greenhouses surrounded by fields of red-dirt farmland.

The Sooner State has become the biggest source of black-market weed in the country, the Oklahoma Bureau of Narcotics estimated this month.

Drawn by cheap land, affordable licenses and light regulatory oversight, marijuana growers by the hundreds flocked to Oklahoma after the state began allowing commercial marijuana cultivation when it legalized the drug for medicinal purposes in 2018.

With no limit on how much marijuana the operations can grow or how big farms can be, output quickly ballooned well beyond what medical marijuana patients, roughly 10% of the state's four million residents, would appear able to legally consume. The state has issued active licenses for about 7,000 growers and for roughly 2,600 dispensaries. Unlicensed or improperly licensed black-market operations are rampant, officials say.

"It looked legit, but something told me to take a closer look and sure enough I realized they used pesticides," Ms. Hansen said. "They didn't actually pass the inspection." All state medical-marijuana growers are required to provide test results measuring allowable levels of pesticides and screening of banned ones to dispensaries.

The cannabis industry has brought in millions of dollars in revenue to a state that has struggled economically, but it is small compared with Oklahoma's total budget. In 2021, the marijuana industry generated nearly $150 million in tax revenue, a fraction of Oklahoma's 2022 $8.8 billion budget. So far this year the industry has brought in $116 million, according to OMMA. Black-market sales are bringing in much more money, but the state doesn't capture that revenue in taxes, state officials said.

Authorities and lawmakers are trying to play catch-up with regulations for the marijuana industry, said Mr. Anderson, the narcotics bureau chief. He said he worries that if voters approve recreational marijuana during a special election in March, state authorities will lose all ability to rein in the industry.

"We can't even abide by the liberal laws we have now," Mr. Anderson said. "If it is decriminalized I'm out of the business."

Incoming Oklahoma Attorney General Gentner Drummond said that if voters pass recreational marijuana, it will give legislators an opportunity to reset restrictions and guidelines for the authorities to enforce.

"It is really now a national issue, where Oklahoma is the largest exporter of marijuana and related drugs," Mr. Drummond, a Republican, said. "We have to abate it today."

Write to Adolfo Flores at adolfo.flores@wsj.com

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WATCH LIVE BY A-BEST ROOFING: REMEMBRANCE CEREMONY HONORS MURRAH BUILDING BOMBING VICTIMS & SURVIVORS

OKLAHOMA SAYS 'NO' TO RECREATIONAL MARIJUANA

Tuesday, March 7th 2023, 8:34 pm

TO TOP ^

TULSA, Okla. -

Oklahoma voters rejected a state question Tuesday to allow for the recreational use of marijuana, following a late blitz of opposition from faith leaders, law enforcement and prosecutors.

Oklahoma would have become the 22nd state to legalize adult use of cannabis and join conservative states like Montana and Missouri that have approved similar proposals in recent years. Many conservative states have also rejected the idea, including Arkansas, North Dakota and South Dakota last year.

Republican Gov. Kevin Stitt and many of the state's GOP legislators, including nearly every Republican senator, opposed the idea. Former Republican Gov. Frank Keating, an ex-FBI agent, and Terri White, the former head of the Oklahoma Department of Mental Health and Substance Abuse Services, led the "no" campaign.

"We're pleased the voters have spoken," said Pat McFerron, a Republican political strategist who ran the opposition campaign. "We think this sends a clear signal that voters are not happy with the recreational nature of our medicinal system. We also think it shows voters recognize the criminal aspects, as well as the need for addressing mental health needs of the state."

The "no" side was outspent more than 20-to-1, with supporters of the initiative spending more than $4.9 million, compared to about $219,000 against, last-minute campaign finance reports show.

State Question 820, the result of a signature gathering drive last year, was the only item on the statewide ballot, and early results showed heavy opposition in rural areas.

TO TOP

attorneys and law enforcement officers from across the state.

The proposal, if passed, would have allowed anyone over the age of 21 to purchase and possess up to 1 ounce of marijuana, plus concentrates and marijuana-infused products. Recreational sales would have been subjected to a 15% excise tax on top of the standard sales tax. The excise tax would be used to help fund local municipalities, the court system, public schools, substance abuse treatment and the state's general revenue fund.

The prospect of having more Oklahomans smoking anything, including marijuana, didn't sit well with Mark Grossman, an attorney who voted against the proposal Tuesday at the Crown Heights Christian Church in Oklahoma City.

"I was a no vote because I'm against smoking," Grossman said. "Tobacco smoking was a huge problem for my family."

Oklahoma voters already approved medical marijuana in 2018 by 14 percentage points and the state has one of the most liberal programs in the country, with roughly 10% of the state's adult population having a medical license.

The low barriers for entry into the industry has led to a flood of growers, processors and dispensary operators competing for a limited number of customers. Supporters had hoped the state's marijuana industry would be buoyed by a rush of out-of-state customers, particularly from Texas, which has close to 8 million people in the Dallas-Fort Worth area just a little more than an hour drive from the Oklahoma border.

"With a March special election and no other issues on the ballot, we knew from the beginning this would be an uphill battle," said Brian Vicente, a member of the steering committee in support of the question. "Overcoming a century of anti-marijuana propaganda is no simple task, and there is still work to be done."

TO TOP ^

Cannabis Black Market Thrives Despite Legalization

"It's time to end the War on Marijuana", declares an ACLU article aimed at exposing the staggering racialization of cannabis-related arrests. Remarking on the tremendous focus police departments had placed on the enforcement of possession laws prior to legalization, it laments the billions of taxpayer dollars that could be re-focused to community improvement projects if such laws were to go away.

And there's nothing wrong with this promise – a black market designed to facilitate the sale of an illegal substance should dissipate as that substance becomes legalized. This destruction of the illegal marijuana market makes logical sense – so much so that it became one of the primary arguments used by pro-legalization politicians to promote the drug. So now, years after the first legalization of recreational cannabis in 2012, the illegal markets should be fading into obscurity.

But many attentive residents of legalized states know that this promise hasn't panned out. Cannabis' illegal market is anything but dying; in some cases, it's more active than it has been in years.

Take California for example: first in the nation to legalize the medical use of the drug in 1996, the state would go on to legalize recreational use in 2016. But in just the past year, the state reported several massive illegal cannabis busts, with 20 tons of cannabis confiscated off a series of farms, $8 million worth of plants found in a thought-abandoned warehouse alongside a busy highway, and 100+ illegal operations busted in the southern town of Anza – just over the last three or four months.

What's more, police reports suggest that arrests for pot crimes have *increased* following the drug's legalization. Among such reports are a series of police records secured by the Los Angeles Times in early 2019 – compared to the rates of cannabis smuggling from before legalization was implemented, the documents suggest that arrests have risen as much as 166% since 1996.

And this smuggling is occurring too quickly and too frequently for law enforcement to handle, says Sgt. Ray Kelly of the Alameda County Sheriff's Office. Sgt. Kelly told The Los Angeles Times that his officers regularly intercept smugglers attempting to depart with large quantities of the drug. Kelly and his department "find it in about 50-pound quantities…the carry-on rate for luggage", and seemed doubtful that the enforcement is catching all the traffickers.

This troubling event touches on one of the several underlying reasons as to how cannabis's more dubious markets are managing to survive despite legalization, as recent data suggests that California produces nearly five times the amount of cannabis as is legally consumed. And the off-state smuggling business that could be created by such a surplus can only be strengthened by the drug's industrialization.

As former dealers and growers fail to keep up with the marketing and brick-and-mortar convenience of fast-growing commercial options such as NETA, they naturally attempt to go where their prime competition cannot, packing up thousands of dollars worth of leaves and shipping them out of state.

But this is not to say that total legalization will bring an end to this underground market either. While it may end the current drug smuggling rush, there are distinct advantages that local, underground pot salespeople have over licensed dispensaries.

Perhaps the most significant of these advantages is the possibility for local dealers to sell bud at far lower prices. Thanks to significant $9.25 tax per ounce of flower required from dealers and an additional 15% excise tax required from the consumer, legal options in CA may end up far pricier than their underground counterparts.

And California isn't alone in this issue of taxation: Colorado employs a 15% tax from the cultivator to realtor and an additional 15% tax from realtor to consumer, Oregon levies a 17% tax on the consumer alone, and

Washington requires a whopping 37% tax on all sales for recreational use.

Illegal operations have also seen an increased prominence in legal states due to the drug's overarching legalization. Some outlets choose to forgo the acquisition of a legal license while still operating out of a storefront and presenting themselves as a licensed dealer. And the process of conducting investigations against such businesses takes time – far too much time to quell the hundreds of illegal shops popping up.

Weedmaps, an online service designed to help consumers find local dispensaries, came under fire in February 2018 from the Bureau of Cannabis Control (BCC) for listing illegal outfits in addition to legal stores but was able to dodge the BCC's jurisdiction and continue operating. The app is still active today, mapping hundreds of unlicensed shops and helping the illegal cannabis market continue to thrive through legalization.

Written by Joseph Detrano, CAS Science Writer

It is a simple question: will more marijuana in Oklahoma make our families stronger, our streets safer, or our workplaces more productive? The debate for or against increased marijuana access in Oklahoma really comes down to that answer.

When Oklahomans voted to endorse the growth and distribution of "medical marijuana" in 2018, few people in the voting booth could have imagined the future explosion of marijuana access in Oklahoma.

Oklahoma now has more marijuana facilities than Colorado, Oregon, and Washington, combined. But for the marijuana industry – which makes millions off drug addiction – that is not enough. They want more.

Drug cartels – from not just south of the border, but also Asia – are now deeply ingrained across Oklahoma, operating grow facilities that ship marijuana across the country.

Oklahomans often now wake up to read the news about the latest execution-style murder, human trafficking, or prostitution at a grow facility in rural Oklahoma.

In January 2023, the Tulsa World reported that about 2,000 licenses for medical marijuana were being investigated because they were suspected of having been either obtained unlawfully or were covering up an operation to sell on the black market.

Oklahoma is now the top source for black market marijuana in the nation.

So much for the argument that widening legal access to a drug gets rid of the illicit market.

Thousands of acres of land and buildings are being purchased across Oklahoma by foreign nationals and perhaps even governments to grow marijuana. In fact, two years after medical marijuana passed in Oklahoma, people in the state sold more land to foreign entities than any other state in America.

One of this op-ed's authors introduced a bill, the Security and Oversight of International Landholdings (SOIL) Act, to counter the massive international land grab happening by foreign entities, particularly in western Oklahoma.

In late 2021, The New York Times reported that Keota, Oklahoma, a small town with about 500 residents, had more than 40 grow facilities.

In January of this year, Oklahoma's medical marijuana industry made $90 million in products sold from 2,598 dispensaries and grown from 7,900 growers.

For perspective, Oklahoma has more marijuana dispensaries than gas stations.

But, again, the marijuana industry still wants more.

Worse still, childhood use of marijuana has increased in the past five years. In 2022, nationally, 8 percent of 8th graders, 20 percent of 10th graders, and 31 percent of high school seniors reported using marijuana in the past 12 months.

It's clear the multitude of grow facilities and dispensaries has made marijuana easier to access for teens.

Every administration from George W. Bush to Biden has defined marijuana as a Schedule I drug because time and time again, research reviews have shown that marijuana still has no currently accepted medical use and a high potential for abuse.

In fact, according to an August 2022 report by the National Library of Medicine, "Long-term THC use has been associated with the development of psychosis and significant neuropsychiatric dysfunction. Cannabis use in childhood is particularly detrimental as it is a period of crucial brain development and impairs acute neuropsychological functioning."

- The most tortured claim of the marijuana lobby has been that more marijuana will actually help our kids because the schools will get more tax revenue.

Can anyone honestly say that the best thing we can do for our kids is to encourage their parents to smoke more marijuana so their child's school can have more tax revenue?

We respect Oklahomans who may disagree with our viewpoint, but we hope everyone will think seriously about how marijuana has negatively transformed Oklahoma in the last few years and ask themselves if more marijuana sold by massive, for-profit companies and foreign cartels will make life better.

Simply stated: Marijuana does not make our families stronger, our streets safer, or our workplaces more productive.

(Dr. Kevin Sabet, a former three-time White House drug policy advisor, is president of Smart Approaches to Marijuana (SAM).)

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Acad Emerg Med. 2018 May;25(5):526-537. doi: 10.1111/acem.13393. Epub 2018 Apr 10.

Mental Health-related Emergency Department Visits Associated With Cannabis in Colorado

Katelyn E Hall [1], Andrew A Monte [2 3], Tae Chang [2], Jacob Fox [2], Cody Brevik [2], Daniel I Vigil [1], Mike Van Dyke [1], Katherine A James [4]

Affiliations

PMID: 29476688 PMCID: PMC5980767 DOI: 10.1111/acem.13393

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Abstract

Background: Cannabis legalization in Colorado resulted in increased cannabis-associated health care utilization. Our objective was to examine cooccurrence of cannabis and mental health diagnostic coding in Colorado emergency department (ED) discharges and replicate the study in a subpopulation of ED visits where cannabis involvement and psychiatric diagnosis were confirmed through medical review.

Methods: We collected statewide ED International Classification of Diseases, 9th Revision, Clinical Modification diagnoses from the Colorado Hospital Association and a subpopulation of ED visits from a large, academic hospital from 2012 to 2014. Diagnosis codes identified visits associated with mental health and cannabis. Codes for mental health conditions and cannabis were confirmed by manual records review in the academic hospital subpopulation. Prevalence ratios (PRs) of mental health ED discharges were calculated to compare cannabis-associated visits to those without cannabis. Rates of mental health and cannabis-associated ED discharges were examined over time.

Results: Statewide data demonstrated a fivefold higher prevalence of mental health diagnoses in cannabis-associated ED visits (PR = 5.35, 95% confidence interval [CI], 5.27-5.43) compared to visits without cannabis. The hospital subpopulation supported this finding with a fourfold higher prevalence of psychiatric complaints in cannabis attributable ED visits (PR = 4.87, 95% CI = 4.36-5.44) compared to visits not attributable to cannabis. Statewide rates of ED visits associated with both cannabis and mental health significantly increased from 2012 to 2014 from 224.5 to 268.4 per 100,000 ($p < 0.0001$).

Conclusions: In Colorado, the prevalence of mental health conditions in ED visits with cannabis-associated diagnostic codes is higher than in those without cannabis. There is a need for further research determining if these findings are truly attributed to cannabis or merely coincident with concurrent increased use and availability.

© 2018 by the Society for Academic Emergency Medicine.

Figures

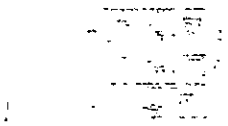


Figure 1 Data extraction algorithms for statewide...

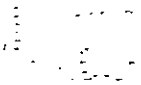


Figure 2 Rates of ED discharges involving...

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NCI CPTC Antibody Characterization Program

April 20, 2023

Marijuana is a drug, this is a plain and simple fact.
HB 639 to legalize marijuana in the state of NH is bad for our children, aging population, pets, and communities.

Not everyone in NH realizes marijuana has already been decriminalized. Meaning, no one is going to jail in NH for a personal amount of marijuana. It is important to know the facts and be informed before voting on such important legislation that will impact and affect all of NH residents.

Marijuana is here in NH, you can smell it in buildings, town halls, the grocery store, the library and as scary as it is to think about in cars driving by.

The marijuana industry doesn't care about our children, our pets or even our senior citizens. These are the populations who will be most affected by allowing full legalization of marijuana into our state.

I ask you not to be be fooled by the promises of money. The money might look enticing but then, after a year or two, the money goes away, the rules get weakened and the issues we get are everyone's problem.

All of the public health issues we already have in NH will only get worse. Drugged driving crashes increase, car insurance rates increase, children and pet poisonings increase, health care costs increase, youth marijuana use increases, substance misuse treatment and mental health care centers wait time are longer, and emergency room waiting times increase for everyone. This is a long list of expenses!

NH's already overworked and understaffed health care systems can not afford this.

The real majority of NH citizens do not want marijuana legalized but newspapers and news stations in this state rarely cover substance misuse prevention information. The press comes out when people are dying, overdosing or are a public nuisance, all of the things we are desperately trying to prevent.

NH is known to many as a vacation destination for families of all ages. Residents and visitors alike enjoy our mountains, lakes, rivers, streams and beaches.. I myself grew up visiting North Conway with my family, my husband and I vacationed there with our kids, and now they continue to visit. It is sad and disturbing to see all the advertising for Maine marijuana shops on the front page of the Conway Daily Sun now. That is not an image the small little family village stands for. BUT.... Make no mistake, if marijuana is legalized in NH advertising and shops will flood all of our state.

We are surrounded by states that have legalized this drug. Let's keep NH an island. If people want weed so bad they can go to those other states.

Let's keep NH for all of the people who put the health, wellbeing and the safety of our children first. This is much more inviting and attractive to families of all ages and those who enjoy the great outdoors and fresh air.

Respectfully submitted by,

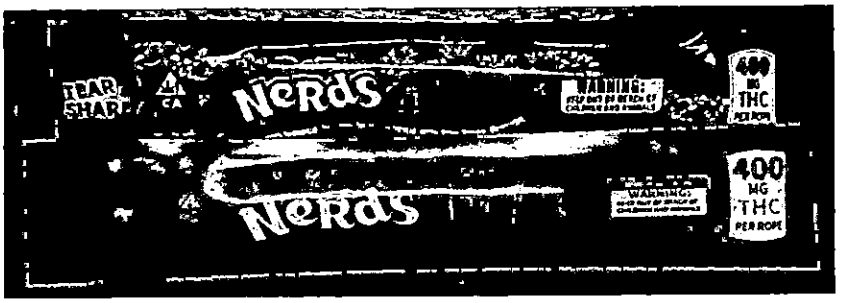
Celeste Clark
Raymond NH resident
Executive Director,
Raymond Coalition For Youth

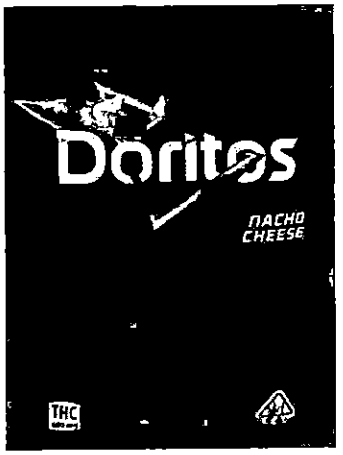
Enclosed: examples of today's marijuana products



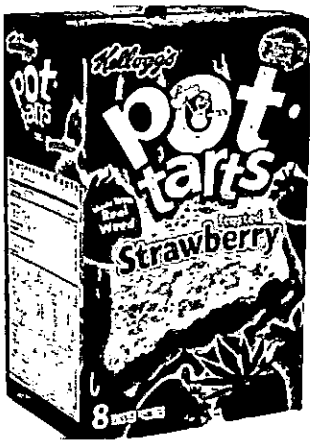
BEWARE! **This is what todays marijuana looks like in various forms. Marijuana companies are manufacturing products to look like commonly enjoyed treats. Many of these products contain large amounts of THC, the active drug that gets a person high.**

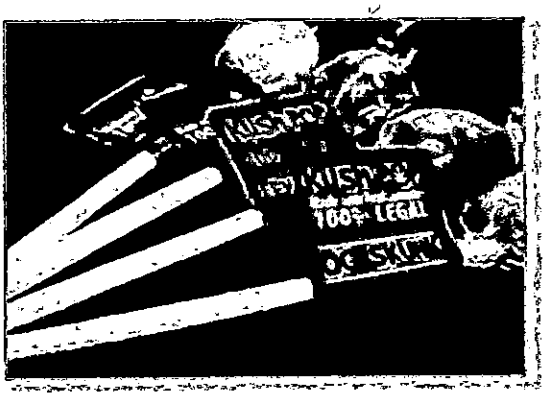
These products are very dangerous if children or pets eat or ingest, often requiring medical attention.

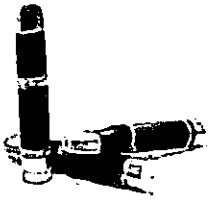




RAYMOND COALITION FOR YOUTH









ACLU New Hampshire

Frank Knaack
Policy Director
fknaack@aclu-nh.org
603.545.0433

Support HB 639 - End New Hampshire's Unnecessary and Harmful War on Marijuana

HB 639 (as amended and passed by the House) would:

- Allow adults (over age of 21) to possess up to four ounces of marijuana
- Create state-licensed private retail sales.
- Preserve and integrate the medical marijuana program
- Allow localities to regulate or ban marijuana businesses.
- Impose a 12.5% tax on final products sold to retailers and, after administrative costs, allocate this revenue to the education trust fund, to provide property tax relief (50%); unfunded pension liabilities (30%); a new Substance Abuse Prevention and Recovery Fund (10%); children's behavioral health services (5%); and training first responders to address detect impaired driving and respond to drug overdoses (5%).

Under current law, adults in possession of up to 3/4 ounce of marijuana face fines ranging from $100 to $1,200, depending in the number of offenses within a three-year period.[i] Adults in possession of marijuana under this limit can still face arrest and a criminal charge (Class B Misdemeanor) for their fourth violation within a three-year period.[ii] In addition, for adults in possession of more than 3/4 ounce of marijuana, they can be charged with a misdemeanor and face up to one year in jail and a fine of $2,000 or less.[iii]

A marijuana possession arrest can ruin lives. Sold to the public in the name of public safety, New Hampshire's marijuana laws needlessly ensnare over a thousand people -- disproportionately Black people -- in its criminal justice system every year. These arrests are not just an unnecessary burden on New Hampshire residents and the judicial system, but also negatively affect access to employment, housing, and child custody, among others, for the person arrested. These collateral harms can last for decades, even after someone has served their time or paid any required fines. It is past time to end New Hampshire's unnecessary and harmful war on marijuana.

New Hampshire's war on marijuana is a monumental waste of tax dollars. For each of the 1,120 marijuana arrests in 2021,[iv] our tax dollars had to pay for a judge, a clerk, law enforcement officers, prosecutor, and others to process the case. According to an economic analysis published in 2013, the 2,769 marijuana possession arrests in 2010 cost New Hampshire taxpayers $6,526,364 that year.[v] Despite New Hampshire's decriminalization of marijuana possession in 2017,[vi] law enforcement still arrested 1,120 people in 2021 for marijuana possession,[vii] meaning New Hampshire taxpayers may still be paying close to $2.6 million each year to enforce marijuana possession laws. Lawmakers should stop wasting tax dollars on this failed war.

New Hampshire's war on marijuana is enforced with a staggering racial bias.[viii] In 2020 Black people were 4.8 times more likely to be arrested for marijuana possession when compared with whites,[ix] despite both groups using marijuana at roughly the same rate.[x] And, this disparity is on the rise, up from 2.6 times more likely to be arrested in 2010 – a 46 percent increase.[xi] The racial bias in enforcement is even more pronounced with the city police departments in Manchester and Concord, where the disparities are 13.9 times and 5.8 times respectively.[xii] The discriminatory enforcement of New Hampshire's marijuana laws means that Black people are more likely to face the immediate harms of a marijuana arrest and charge, including potential incarceration, as well as the collateral consequences, including the loss of jobs, housing, financial aid eligibility, and child custody.

The vast majority of Granite Staters support marijuana legalization. Seventy-four percent of Granite Staters support marijuana legalization, including majorities of Democrats, Independents, and

Republicans.[xiii] And, support for marijuana legalization has greatly increased since 2013, when it was just 49 percent.[xiv] It is past time for New Hampshire lawmakers to listen to the people and legalize marijuana possession by adults.

Opponents of marijuana legalization rely on fear-based rhetoric divorced from reality. Marijuana legalization opponents argue that marijuana legalization leads to increased youth use, crime, and traffic fatalities. They also argue that marijuana is a gateway drug that is partially responsible for the opioid epidemic. The data from legalization states do not support these claims. Multiple studies have found no increase in youth use in states that have legalized marijuana.[xv] Legalization has also not substantially affected crime rates,[xvi] and, according to a multi-year study of Colorado and Washington, may have improved crime clearance rates.[xvii] Fortunately, it also appears that marijuana legalization has had "little or no effect" on traffic accidents and fatalities.[xviii] Finally, evidence suggests that marijuana legalization is connected with a reduction in opioid related deaths.[xix] New Hampshire lawmakers have the benefit of years of data from legalization states to distinguish myth from reality.

Support HB 639 – The war on marijuana does not make us safe, wastes taxpayer dollars, and ruins lives.

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[i] NH Rev Stat § 318-B:2-c.
[ii] NH Rev Stat § 318-B:2-c(V)(a).
[iii] NH Rev Stat § 318-B:26(II)(c).
[iv] Federal Bureau of Investigation, Crime Data Explorer, Arrests in New Hampshire by Offense, Drug Possession – Marijuana, 2021, *available at* https://crime-data-explorer.app.cloud.gov/pages/explorer/crime/arrest.
[v] ACLU, *The War on Marijuana in Black and White*, p. 164, *available at* https://www.aclu.org/report/report-war-marijuana-black-and-white.
[vi] NH Rev Stat § 318-B:2-c (2017).
[vii] 1,120 marijuana possession arrests in 2021 and 2,769 marijuana possession arrests in 2010. *See*, Federal Bureau of Investigation, Crime Data Explorer, Arrests in New Hampshire by Offense, Drug Possession – Marijuana, 2021, *available* https://crime-data-explorer.app.cloud.gov/pages/explorer/crime/arrest & ACLU, *The War on Marijuana in Black and White*, p. 127, *available at* https://www.aclu.org/report/report-war-marijuana-black-and-white.
[viii] Note: Racial disparity numbers on this sheet are based on 2020 data provided to the FBI because only a very limited number of New Hampshire law enforcement agencies provided race disparity data in 2021. This is a very serious problem that the NH Legislature must address.
[ix] New Hampshire arrested 1,494 people for marijuana possession in 2020. 1,332 arrests of white people and 125 arrests of Black people. *See*, Federal Bureau of Investigation, Crime Data Explorer, Arrests in New Hampshire by Offense, Drug Possession – Marijuana, 2020, *available at* https://crime-data-explorer.app.cloud.gov/pages/explorer/crime/arrest & U.S. Census Bureau, QuickFacts, New Hampshire, *available at* https://www.census.gov/quickfacts/fact/table/manchestercitynewhampshire,concordcitynewhampshire/PST045221.
[x] Fred Dews, *Charts of the week: Marijuana use by race, Islamist rule in Middle East, climate adaptation savings*, Brookings, Aug. 11, 2017, *available at* https://www.brookings.edu/blog/brookings-now/2017/08/11/charts-of-the-week-marijuana-use-by-race/.
[xi] ACLU, *The War on Marijuana in Black and White*, p. 127, *available at* https://www.aclu.org/report/report-war-marijuana-black-and-white.
[xii] Manchester Police Department arrested 26 people for marijuana possession in 2020. 13 arrests of white people and 13 arrests of Black people. *See*, Federal Bureau of Investigation, Crime Data Explorer, Arrests in New Hampshire by Offense, Drug Possession – Marijuana, 2020, Manchester Police, *available at* https://crime-data-explorer.app.cloud.gov/pages/explorer/crime/arrest. U.S. Census Bureau, QuickFacts, Manchester city, New Hampshire, *available at* https://www.census.gov/quickfacts/fact/table/manchestercitynewhampshire,concordcitynewhampshire/PST045221;Concord Police Department arrested 33 people for marijuana possession in 2020. 26 arrests of white people and 6 arrests of Black people. Concord's population is 43,976. White people comprise percent of the population and Black people comprise percent of the population. *See*, Federal Bureau of Investigation, Crime Data Explorer, Arrests in New Hampshire by Offense, Drug Possession – Marijuana, 2020, Concord Police, available at

https://crime-data-explorer.app.cloud.gov/pages/explorer/crime/arrest. U.S. Census Bureau, QuickFacts, Concord city, New Hampshire, *available at* https://www.census.gov/quickfacts/concordcitynewhampshire.

[xiii] University of New Hampshire, The Survey Center, *Bipartisan Support for NH Marijuana Legislation; Most Consider Legislature's Redistricting Maps Unfair*, Feb. 25, 2022, *available at* https://scholars.unh.edu/cgi/viewcontent.cgi?article=1688&context=survey_center_polls.

[xiv] *Id.*

[xv] *See, e.g.* Anderson, Mark D., et al.. *Association of Marijuana Laws With Teen Marijuana Use New Estimates From the Youth Risk Behavior Surveys*, Journal of the American Medical Association, July 2019 (Recreational marijuana laws were associated with an 8% decrease in the odds of marijuana use and a 9% decrease in the odds of frequent marijuana use.); Healthy Kids Colorado Survey (HKCS) data, *available at* https://marijuanahealthinfo.colorado.gov/health-data/healthy-kids-colorado-survey-hkcs-data; Marijuana Policy Project, Teen Marijuana Use Does Not Increase Following Marijuana Policy Reforms, *available at* https://www.mpp.org/issues/legalization/teen-marijuana-use-does-not-increase/.

[xvi] Angela Dills, et. al., *The Effect of State Marijuana Legalizations: 2021 Update*, CATO Institute, Feb. 2, 2021, *available at* https://www.cato.org/sites/cato.org/files/2021-01/PA908.pdf; Greg Rosalsky, *The Data On Legalizing Weed*, Planet Money/NPR, Mar. 16, 2021, *available at* https://www.npr.org/sections/money/2021/03/16/976265525/the-data-on-legalizing-weed.

[xvii] David A. Makin, et. al., *Marijuana Legalization and Crime Clearance Rates: Testing Proponent Assertions in Colorado and Washington State*, National Institute of Justice, 2019, *available at* https://nij.ojp.gov/library/publications/marijuana-legalization-and-crime-clearance-rates-testing-proponent-assertions.

[xviii] Greg Rosalsky, *The Data On Legalizing Weed*, Planet Money/NPR, Mar. 16, 2021, *available at* https://www.npr.org/sections/money/2021/03/16/976265525/the-data-on-legalizing-weed; Angela Dills, et. al., *The Effect of State Marijuana Legalizations: 2021 Update*, CATO Institute, Feb. 2, 2021, *available at* https://www.cato.org/sites/cato.org/files/2021-01/PA908.pdf; & Benjamin Hansen, et. al., *Early Evidence on Recreational Marijuana Legalization and Traffic Fatalities*, Mar. 2018, *available at* https://www.nber.org/papers/w24417?utm_source=npr_newsletter&utm_medium=email&utm_content=20210311&utm_term=5237211&utm_campaign=money&utm_id=7043805&orgid=305&utm_att1=money.

[xix] Greta Hsu & Balázs Kovács, *Association between county level cannabis dispensary counts and opioid related mortality rates in the United States: panel data study*, BMJ, Jan. 27, 2021, *available at* https://www.bmj.com/content/372/bmj.m4957; Greg Rosalsky, *The Data On Legalizing Weed*, Planet Money/NPR, Mar. 16, 2021, *available at* https://www.npr.org/sections/money/2021/03/16/976265525/the-data-on-legalizing-weed.

Testimony on HB639
NH Senate Judiciary Committee
Beth Scaer, Nashua
4/20/2023

Dear Committee Members,

Thank you for taking my testimony.

I am a huge fan of Americans for Prosperity. They truly care about helping marginalized people succeed, like the single mom struggling to pay the rent and the young man with a criminal record looking for work without success.

AFP believes that they can help these less well-off New Hampshire residents by supporting the legalization of recreational marijuana but the truth is that those people they want to help are the ones that will be hurt the worst by it.

From the article "Sociodemographic Characteristics Associated With and Prevalence and Frequency of Cannabis Use Among Adults in the US" published in JAMA, the Journal of the American Medical Association on November 30, 2021:

> In this survey study including 387,157 US adults residing in 21 states conducted in 2016 through 2019, **young, male, Black, and Native American individuals and individuals with low educational attainment and income were more likely to engage in higher frequency cannabis use.**
>
> **Cannabis use, in particular use at least 4 days per week, is associated with neurocognitive deficits and poor educational and other social outcomes,** especially in adolescents and young adults.

When I was handing out flyers to parents dropping off their children at our local elementary school recently in a neighborhood with a high density of impoverished families, I encountered a mom with slurred speech and her car wreaking of marijuana smoke. She was obviously not safe to drive. **It frightens me to think how often she drives her young daughter while she is high.**

From Alex Berenson's 2019 book "Tell Your Children: The Truth About Marijuana, Mental Illness, and Violence."

over →

Dozens of well-designed studies have linked marijuana with psychosis and schizophrenia. Researchers have found marijuana users are much more likely to develop schizophrenia. People with the disease suffer more frequent and severe relapses if they smoke.

Most people will never have a psychotic episode while using marijuana. Some will have temporary breaks from reality. But **an unlucky minority of users will develop full-blown schizophrenia. At this point, doctors have no way of predicting who they will be.**

In "How Weed Became the New OxyContin, published August 30, 2022, Dr. Christine Miller, an expert on psychotic disorders is quoted: "**One out of every 20 daily users can expect to develop schizophrenia if they don't quit**." (bit.ly/NH-HB639)

My brother started smoking marijuana at a young age and developed full-blown schizophrenia.

I haven't had contact with him since before my youngest was born 27 years ago. We searched for him online and found a mug shot from when he was arrested for squatting on someone's property. He can't take care of himself and he has been in and out of homeless shelters for decades.

I brought my young relative to St. Joseph's emergency room in Nashua a few years ago for severe vomiting where she was kept overnight until her condition was stabilized. She was suffering from cannabis hyperemesis syndrome, a serious condition commonly suffered by marijuana users where they vomit uncontrollably. The only cure is to quit.

On my drive to work in Massachusetts I go by multiple billboards promising me improved mental health, relaxation, and happiness if I shop at their cannabis stores. When I'm on my laptop at work I get digital ads from a nearby cannabis shop suggesting I stop in for a purchase. In Boston's Financial District I saw ads on almost every street corner offering to deliver cannabis to my door. Its horrifying. I know from painful, personal experience how much destruction Massachusetts has invited into their state.

Please vote ITL on HB639 to protect our state from the serious harms from the expansion of marijuana sales for recreational use.

NH Senate Judiciary Committee
TESTIMONY of NEWFOUND REGIONAL HIGH SCHOOL
Getting to Y Youth Leaders
April 20, 2023
In opposition of HB639

To Honorable Members of the New Hampshire Senate:

We are the Getting to Y (GTY) Youth Leaders from Newfound Coalition for Youth (NCFY) located in Newfound, New Hampshire. The GTY program encourages youth to educate communities, and our peers, on problems and solutions related to substance misuse.

We would like to thank you for your service to the state of New Hampshire. As youth advocates who work with the Youth Risk Behavior Survey (YRBS) and know the harm marijuana causes to our peers and community, we ask you to vote NO on HB 639. Thank you.

Throughout my high school and even middle school experience, I have witnessed many fellow students expose themselves to the harmful effects of marijuana. Students have been using this substance daily in the bathrooms. The recent data shows that youth mental health issues have been severely increasing. A majority of this can be prevented by preventing marijuana use. Research shows there is a direct link between marijuana usage and the mental health crisis in youth. Students try marijuana and expose themselves to the harmful effects. Then as a result, they began to feel depressed and anxious. This causes them to use more and more marijuana to chase the high and temporary solution to anxiety. This is a vicious cycle that starts with just one decision.
Lauren Paige, Junior

At least once a week I smell Marijuana when I walk into the bathroom at school. Newfound Regional High School is almost three times above the state average for Marijuana use before the age of 13. If HB639 passes, youth use before the age of 13 will only increase. I care about my peers, and I worry the future of the students younger than us are being jeopardized by HB639.
Taylor Mooney, Senior

Newfound Regional High School's Marijuana use before the age of 13 is almost 3X higher than NH's statewide average (13.4%, 2019 YRBS). By allowing this bill to pass the risk of youth smoking and using Marijuana is going to increase. As students we see the immense problems Marijuana use causes our peers.
Hannah Bassett, Junior

As youth in NH, we are trying to prevent Marijuana use in our school bathrooms and around our community for our peers. At Newfound Regional High School, Marijuana use is 3 times higher than the state average and is a huge problem in our school building. The school bathroom is where a lot of students are partaking in Marijuana use during the day. Smelling, seeing, and being offered Marijuana in the bathroom has become a daily occurrence for many of my peers. Voting no to HB639 will send the message to students that Marijuana use is not acceptable.

Danielle Walker, Senior

Please vote no on HB 639. The scary truth about this bill is regardless of age limits legalizing marijuana in New Hampshire is sending peers my age and younger the message that this is a harmless substance and use is going to continue to climb. My biggest concern is the detrimental effects Marijuana has on youth brain development. Please think about the youth of New Hampshire and vote no on HB 639.

Isabel Braley, Junior

Marijuana Policy Project
P.O. Box 21824 • Washington, DC 20009
202-462-5747 • www.mpp.org

April 19, 2023

Re: In support of HB 639, to legalize and regulate cannabis for adults 21 and older

Dear Chair Carson and distinguished members of the Senate Judiciary Committee:

My name is Karen O'Keefe. I am the director of state policies for the Marijuana Policy Project (MPP), the largest cannabis policy reform organization in the United States. I am an attorney who has worked on cannabis policy at MPP since 2003. MPP has played a leading role in most of the major cannabis policy reforms over the past two decades, including 15 medical cannabis laws and a dozen adult-use legalization laws.

I had the pleasure of working with a broad coalition of advocates from all sides of the political spectrum on HB 639, which is sponsored by both the House majority and minority leaders. HB 639 reflects the lessons learned from the 21 states that have already legalized, along with the priorities of New Hampshire. Both prior to its introduction and as HB 639 has worked its way through the House, the bill has been refined to reflect the priorities of stakeholders, including public health advocates, the Liquor Commission, the House Commerce and Ways & Means committees, and lawmakers from both sides of the aisle.

For example, provisions to address New Futures' priorities include dedicating 10% of revenue (after administrative costs) to a new Substance Abuse Prevention and Recovery Fund; informational handouts, posters at retailers, and warning labels with information about cannabis' possible risks; a public education campaign prior to the launch of cannabis sales; buffer zones between businesses and schools; and language to ensure cannabis products do not appeal to minors. For the liberty-minded, HB 639 takes a free market approach to licensing with modest fees to allow small businesses to flourish, rather than having a scored application system and statewide licensing caps that favor those with deep pockets. HB 639 also allows for local control, allowing cities and towns to issue their own regulations and limit the number of businesses locally — or even ban them.

While MPP would have strongly preferred keeping annulments and home cultivation that were in the original bill, we recognize that the process required compromise. We do recommend this committee make some final refinements to HB 639 by restoring a few provisions — an advisory committee, language to ensure testing facilities are independent, and a provision to prevent oligopoly control.

Turning to the core policy issue, New Hampshire should listen to voters and legalize and regulate cannabis for adults 21 and older. Cannabis is safer than alcohol, tobacco, and many medications, and adults should not be penalized for using it. Like alcohol prohibition a century ago, cannabis prohibition has been a harmful failure. Only legalization allows for control to foster public health and safety, including by ensuring cannabis is lab-tested and sold at regulated establishments.

Cannabis has long been readily available to New Hampshire residents, but now the state is surrounded by states and a country with legal cannabis sales. Continuing prohibition has not stopped anyone from using cannabis — it simply deprives New Hampshire of the economic opportunities that come with legalization, along with the ability to determine the safeguards for products sold to its residents.

While HB 639 is an excellent piece of legislation for New Hampshire, we recommend three revisions, which were in earlier iterations of the bill or the initial draft.

1. Restoring the advisory board,
2. Restoring language for independent testing facilities, and
3. Restoring language to prevent oligopolies.

Here is a more in-depth explanation of MPP's recommendations and the rationale for them. Suggested language is provided in the appendix.

1. Restore the advisory board.

As introduced, HB 639 included a volunteer advisory board to provide a formal process for regulators to receive input from key stakeholders and to ensure draft regulations had a reality check from cannabis businesses. The 13-member advisory board consisted of experts in public health, law enforcement, social welfare or criminal justice, and cannabis business financing, along with a patient, a cannabis consumer, a cannabis lawyer, and representatives from each type of cannabis business.

The advisory board would solicit feedback from the public and advise the Liquor and Cannabis Commission on regulations. It would make recommendations about whether additional types of licenses should be allowed, whether personal possession limits should be revised or eliminated, and recommend changes for law and regulations, including any changes that would be advisable once federal law allows interstate cannabis sales.

We suggest the Judiciary Committee restore the advisory board. The Liquor and Cannabis Commission would have no obligation to take the board's counsel. But including it provides a clear opportunity for public health advocates, businesses, and other stakeholders to flag any concerns as rules are crafted, along with a process to ensure the impact of federal policy changes are considered.

2. Restore language for independent testing facilities.

As drafted by the coalition (but not as introduced), and as amended in the House Committee on Commerce and Consumer Affairs, HB 639 included language to ensure testing facilities are truly independent from other types of New Hampshire cannabis businesses. That language was removed by the House Ways and Means Committee, perhaps unintentionally. We recommend that the Senate Judiciary restore language to ensure no one with a significant interest in a testing laboratory can have a controlling interest in any other category of cannabis business.

Ensuring the accurate testing and labeling for potency and contaminants is one of the health benefits of legalization and regulation. If a business is allowed to test its own product — or own both a testing company and the cultivator or product manufacturer — there is an incentive to distort results. It is important that consumers have faith that testing facilities are truly independent of the businesses whose products they test.

3. **Restore language to prevent oligopolies from dominating the N.H. market.**

As drafted by the coalition, the language that became HB 639 included a provision limiting the number of licenses of any single type that a person or entity could have a 10% or greater ownership interest in. That language was removed prior to introduction. For every license type except testing labs, the limit was three licenses of any type for the first few years. That limit increased to no more than 20% of the total licenses in any category once the market was more mature. For testing labs, the limits were a significant interest in up to five labs initially, then no more than 50% of all labs.

We urge the committee to restore this language to ensure small, New Hampshire-based businesses have a chance to compete. Many localities will cap the number of licenses in their jurisdiction, and there is a natural limit on the number of locations that comply with zoning restrictions and are available. A reasonable restriction on the total number of businesses one entity can own will ensure the little guy has a fair shot at opening and operating a cannabis business. By lifting that limit to a percent of the total market after a few years, it allows smaller businesses to grow, while preventing oligopolistic behavior that blocks new entrants, increases prices, and reduces innovation.

Closing comments

New Hampshire should not let yet another year pass without legalizing and regulating cannabis for adults. Cannabis prohibition is a failed policy that tears apart families, wastes limited government revenue, and makes it impossible to enact health and safety regulations that control where, when, and to whom cannabis is sold.

While some relatively minor tweaks would further improve it, HB 639 is a fully fleshed-out bill that reflects both lessons learned from other states and New Hampshire's priorities, along with the input of stakeholders. I urge you to support it.

Please don't hesitate to reach out if you would like any additional information.

Sincerely,

Karen O'Keefe

Karen O'Keefe
Director of State Policies
323-568-1078
kokeefe@mpp.org

Appendix
Suggested Language for MPP's Suggested Amendments

Cannabis Advisory Board Suggested Language

[New Section] Cannabis Advisory Board.
I. There shall be a cannabis advisory board to study and make recommendations consistent with the purpose and findings of this chapter on the regulation of cannabis and cannabis products in New Hampshire.
II. No later than 90 days after the effective date of this chapter, the governor shall nominate members of the advisory board, who shall be confirmed with the advice and consent of the executive council. The board shall consist of 13 members, and shall consist of: one expert in cannabis cultivation, one expert in cannabis retailing, one expert in cannabis product manufacturing, one expert in cannabis testing, one board member or officer of an alternative treatment center, one registered medical cannabis patient, one individual who represents cannabis consumers, 2 experts in public health, one expert in law enforcement, one expert in social welfare or criminal justice, one expert in financing small cannabis businesses; and one attorney with experience providing legal services to cannabis businesses, cannabis consumers or medical cannabis patients. No more than one advisory board member may work for or hold a financial or equitable interest in a business that sells, grows, or manufactures cannabis in a jurisdiction outside of New Hampshire.
III. Members of the board shall serve terms of 2 years. Members of the board shall serve without compensation but shall be reimbursed for their expenses actually and necessarily incurred in the discharge of their official duties, including mileage at the state employee rate for attendance to meetings and other official functions.
IV. The board shall meet at the discretion of the commission, but shall meet no less frequently than once every 2 months for the first 9 months after the effective date of this section.
V. A majority of the members of the board present and voting shall constitute a quorum.
VI. The cannabis advisory board shall:
(a) Advise the commission on regulations to ensure the thorough and efficient implementation of this chapter.
(b) Advise the commission on what additional types of cannabis establishments, if any, the commission should register, including on-site consumption facilities, along with recommendations on their licensure and regulation.
(c) Consider all matters submitted to it by the commission.
(d) Hold a hearing to solicit public input no less frequently than once every 6 months, including input on the availability of reasonably priced therapeutic cannabis at alternative treatment centers with dual-use certificates.
(e) Advise the commission spending and recommend any modifications to ensure the thorough and efficient implementation of this chapter.
(f) Make recommendations for changes to the law and regulations, including:
(1) Changes that are necessary or advisable once federal law allows interstate cannabis sales; and
(2) Whether the personal possession, cultivation, and purchase limits should be modified or eliminated.

Independent Testing Facilities and Anti-Oligopoly Suggested Language

[New Section] Financial Interests Prohibited.

I. No cannabis testing facility or individual with a controlling interest in a cannabis testing facility shall have a direct or indirect financial interest in an alternative treatment center, a retail cannabis store, a cannabis cultivation facility, or a cannabis product manufacturing facility.

II. Prior to three years after the effective date of this chapter, no person or business entity may have a controlling interest in more than 3 cannabis establishments of any single category.

III. Beginning three years after the effective date of this chapter, no person or business entity may have a controlling interest in more than 20 percent of operational cultivation facilities, product manufacturing facilities, or retail cannabis stores, unless the person or business entity has a controlling interest in no more than 3 cannabis establishments of a single category.

IV. Beginning three years after the effective date of this chapter, no person or business entity may have a controlling interest in more than 50 percent of cannabis testing facilities, unless the person or entity has a controlling interest in no more than 3 cannabis testing facilities.

V. No cannabis establishment or individual with a controlling interest in a cannabis establishment may hold a controlling interest in a vendor that provides cannabis inventory tracking in New Hampshire.

VI. No vendor that provides cannabis inventory tracking in New Hampshire and no individual with a controlling interest in a vendor that provides cannabis inventory tracking in New Hampshire may hold a controlling interest in a cannabis establishment.

VII. In this section, "controlling interest" means a financial or voting interest of 10 percent or greater.

Voting Sheets

Senate Judiciary Committee
EXECUTIVE SESSION RECORD
2023-2024 Session

Bill # HB639

Hearing date: 4/20

Executive Session date: 5/9

Motion of: ITL **Vote:** 3-2

Committee Member	Made by	Second	Yes	No
Sen. Carson, Chair		✓	✓	
Sen. Gannon, V-Chair	✓		✓	
Sen. Ward			✓	
Sen. Whitley				✓
Sen. Chandley				✓

Motion of: _____ **Vote:** _____

Committee Member	Made by	Second	Yes	No
Sen. Carson , Chair				
Sen. Gannon, V-Chair				
Sen. Ward				
Sen. Whitley				
Sen. Chandley				

Motion of: _____ **Vote:** _____

Committee Member	Made by	Second	Yes	No
Sen. Carson , Chair				
Sen. Gannon, V-Chair				
Sen. Ward				
Sen. Whitley				
Sen. Chandley				

Reported out by: Sen. Gannon

Notes: _____

Committee Report

STATE OF NEW HAMPSHIRE

SENATE

REPORT OF THE COMMITTEE

Tuesday, May 9, 2023

THE COMMITTEE ON Judiciary

to which was referred **HB 639-FN-A**

AN ACT relative to the legalization and regulation of cannabis and making appropriations therefor.

Having considered the same, the committee recommends that the Bill

IS INEXPEDIENT TO LEGISLATE

BY A VOTE OF: 3-2

Senator Bill Gannon
For the Committee

Sonja Caldwell 271-2117

JUDICIARY

HB 639-FN-A, relative to the legalization and regulation of cannabis and making appropriations therefor.

Inexpedient to Legislate, Vote 3-2.

Senator Bill Gannon for the committee.

General Court of New Hampshire - Bill Status System

Docket of HB639

Docket Abbreviations

Bill Title: relative to the legalization and regulation of cannabis and making appropriations therefor.

Official Docket of **HB639.**:

Date	Body	Description
1/12/2023	H	**Introduced** (in recess of) 01/05/2023 and referred to Commerce and Consumer Affairs **HJ 3** P. 23
1/25/2023	H	Public Hearing: 01/25/2023 01:15 pm SH Reps Hall
1/25/2023	H	Subcommittee Work Session: 02/01/2023 11:00 am LOB 302-304
2/2/2023	H	Subcommittee Work Session: 02/07/2023 02:15 pm LOB 210-211
2/8/2023	H	Full Committee Work Session: 02/14/2023 00:00 pm LOB 302-304
2/8/2023	H	Full Committee Work Session: 02/15/2023 10:00 pm LOB 302-304
2/9/2023	H	Executive Session: 02/15/2023 01:15 pm LOB 302-304
2/16/2023	H	Majority Committee Report: Ought to Pass with Amendment **#2023-0543h** 02/15/2023 **(Vote 17-3; RC) HC 12** P. 10
2/16/2023	H	Minority Committee Report: Inexpedient to Legislate
2/22/2023	H	Amendment **#2023-0543h**: AA VV 02/22/2023 **HJ 6** P. 18
2/22/2023	H	**Ought to Pass with Amendment** 2023-0543h: MA DV 234-127 02/22/2023 **HJ 6** P. 32
2/22/2023	H	Referred to Ways and Means 02/22/2023 **HJ 6** P. 32
3/7/2023	H	Public Hearing: 03/13/2023 09:00 am LOB 202-204
3/8/2023	H	Executive Session: 03/15/2023 11:00 am LOB 202-204
3/15/2023	H	Full Committee Work Session: 03/21/2023 10:00 am LOB 202-204
3/20/2023	H	Executive Session: 03/27/2023 11:00 am LOB 202-204
3/30/2023	H	Majority Committee Report: Ought to Pass with Amendment **#2023-1231h** 03/27/2023 (Vote 16-4; RC)
3/30/2023	H	Minority Committee Report: Ought to Pass
4/6/2023	H	Amendment **#2023-1231h**: AA VV 04/06/2023 **HJ 12** P. 228
4/6/2023	H	**Ought to Pass with Amendment** 2023-1231h: MA **RC** 272-109 04/06/2023 **HJ 12** P. 239
4/11/2023	S	Introduced 03/30/2023 and Referred to Judiciary; **SJ 13**
4/12/2023	S	**Hearing:** 04/20/2023, Room 100, SH, 02:15 pm; **SC 18**
5/9/2023	S	Committee Report: Inexpedient to Legislate, 05/11/2023; **SC 21A**
5/11/2023	S	Special Order to after lunch break, Without Objection, MA; 05/11/2023; **SJ 14**
5/11/2023	S	Inexpedient to Legislate, **RC** 14Y-10N, MA === BILL KILLED ===; 05/11/2023; **SJ 14**

NH House	NH Senate

Other Referrals

Senate Inventory Checklist for Archives

Bill Number: HB 639-FN-A **Senate Committee:** JUD

Please include all documents in the order listed below and indicate the documents which have been included with an "X" beside

X Final docket found on Bill Status

Bill Hearing Documents: {Legislative Aides}

X Bill version as it came to the committee

X All Calendar Notices

X Hearing Sign-up sheet(s)

X Prepared testimony, presentations, & other submissions handed in at the public hearing

X Hearing Report

X Revised/Amended Fiscal Notes provided by the Senate Clerk's Office

Committee Action Documents: {Legislative Aides}

All amendments considered in committee (including those not adopted):

X - amendment # 1716s ___ - amendment #_____

___ - amendment #_____ ___ - amendment #_____

X Executive Session Sheet

X Committee Report

Floor Action Documents: {Clerk's Office}

All floor amendments considered by the body during session (only if they are offered to the senate):

___ - amendment #_____ ___ - amendment #_____

___ - amendment #_____ ___ - amendment #_____

Post Floor Action: (if applicable) {Clerk's Office}

___ Committee of Conference Report (if signed off by all members. Include any new language proposed by the committee of conference):

___ Enrolled Bill Amendment(s)

___ Governor's Veto Message

All available versions of the bill: {Clerk's Office}

___ as amended by the senate ___ as amended by the house

___ final version

Completed Committee Report File Delivered to the Senate Clerk's Office By:

Matthew Schelly 8-31-23

Committee Aide **Date**

Senate Clerk's Office AK