

# Cannabis Policy Impacts

## Public Health and Health Equity (2024)

<https://nap.nationalacademies.org/catalog/27766/cannabis-policy-impacts-public-health-and-health-equity>

- NATIONAL ACADEMIES PRESS 500 Fifth Street, NW Washington, DC 20001
- Suggested Citation: National Academies of Sciences, Engineering, and Medicine. 2024. *Cannabis Policy Impacts Public Health and Health Equity*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/27766>.
- This activity was supported by contracts between the National Academy of Sciences and Centers for Disease Control and Prevention [through the National Council for Behavioral Health, and the National Council for Mental Wellbeing (#27170005)], the National Institutes of Health (Contract no. HHSN263201800029I, Task Order no. 75N98023F00007), and the National Academy of Sciences Cecil and Ida Green Fund.
- The three Academies work together as the National Academies of Sciences, Engineering, and Medicine to provide independent, objective analysis and advice to the nation and conduct other activities to solve complex problems and inform public policy decisions. The National Academies also encourage education and research, recognize outstanding contributions to knowledge, and increase public understanding in matters of science, engineering, and medicine.

### Synopsis of Conclusions & Recommendations

**Key Terms:** “Cannabis” is a broad term that can be used to describe products (e.g., cannabinoids, marijuana, hemp) derived from the Cannabis sativa plant. These products exist in various forms and are used for various purposes (e.g., medical, industrial, social). The all-encompassing word “cannabis” has been adopted as the standard terminology within scientific and scholarly communities. The committee uses the term “cannabis” rather than “marijuana” throughout this report.

**Summary:** More than half of all U.S. states have legalized cannabis, fueled by therapeutic use, social acceptance, a desire for relaxed drug policies, enforcement skepticism, potential tax revenues, and racial justice concerns. The commercial markets created by state legalization require the development of complex policies—surrounding cultivation, processing and manufacturing, distribution, marketing, and sales—to promote public health and health equity. Because cannabis is illegal federally, the federal government has had minimal involvement in cannabis policies within the states. The limited federal guidance on cannabis has focused on its sale—not on public health. Further, federal policies have complicated the efforts of state governments to develop cannabis policies that protect public health. These federal policies include the 2018 Agriculture Improvement Act (2018 Farm Bill), which removed hemp and other cannabinoids from the Controlled Substances Act, creating a lucrative industry for intoxicating cannabis products designated legally as hemp.<sup>3</sup> Public health leadership on cannabis policy is needed, not just in those states with legalized cannabis but nationwide.

### Chapter 1: Introduction

## **Chapter 2: Overview of Cannabis Policy**

### **Conclusions and Recommendations (pg. 91)**

- Conclusion 2-1 (pg. 91): The redefinition of the federal meaning of “hemp” in the Agricultural Improvement Act of 2018 (2018 Farm Bill) has created considerable uncertainty and confusion as to what cannabis products are legal and has led to a massive new market in semisynthetic cannabinoids with little regulatory or public health oversight.
- Recommendation 2-1 (pg. 91): Congress should refine the definition of “hemp” to state clearly that no form of tetrahydrocannabinol or semisynthetic cannabinoid derived from hemp is exempt from the Controlled Substances Act.
- Conclusion 2-2 (pg. 91): The federal government has not provided adequate guidance on public health policies that might minimize the adverse consequences of cannabis legalization. States that have legalized cannabis have created regulatory frameworks that have prioritized commerce over public health. The significant state-to-state variation in regulations on products, retail sales, and use has resulted in inconsistent applications of public health safeguards. A better understanding of the influence of this variation on public health is needed.
- Conclusion 2-3 (pg. 92): Other countries have taken a centralized, government regulated approach to protecting public health by placing stricter controls on the access to, availability of, and safety of cannabis products.
- Recommendation 2-2 (pg. 93): In conjunction with other federal agencies, the Centers for Disease Control and Prevention should conduct research on and develop best practices for protecting public health for states that have legalized cannabis, drawing from tobacco and alcohol policies. These best practices should encompass marketing restrictions (e.g., on advertising and packing), age restrictions, physical retail and retail operating restrictions, taxation, price restrictions, product design, and measures to limit youth access. Other strategies for protecting public health that warrant identification of best practices include reducing cannabis impaired driving, promoting state retail monopoly, and encouraging cultivation practices that limit contamination of both products and the environment. The best practices should be reconsidered and updated periodically as new research emerges.
- Recommendation 2-3 (pg. 93): The National Governors Association, the National Council of State Legislatures, and other public health stakeholders should develop model legislation concerning best practices related to marketing restrictions (e.g., on advertising and packaging), age restrictions, physical retail and retail operating restrictions, taxation, price restrictions, product design, and measures to limit youth access, as well as strategies for reducing cannabis-impaired driving, promoting state retail monopoly, and encouraging cultivation practices that limit contamination of both products and the environment. Once the Centers for Disease Control and Prevention’s best practices have been developed, they should be incorporated into the model legislation.

## **Chapter 3: Cannabis Consumption and Markets in the United States**

### **Conclusions (pg. 139)**

- Conclusion 3-1 (pg. 139): The price per unit of delta-9-THC is declining, with implications for many outcomes discussed in cannabis legalization debates, such as consumption, the size of the illegal market,

tax revenues, and the profitability of businesses (which can affect social equity efforts). These declines would likely be accelerated with federal legalization.

- Conclusion 3-2 (pg. 139): Reduction in the size of the illegal cannabis market is shaped by multiple factors, ranging from the regulatory environment to enforcement activities.

## **Chapter 4: Applying the Core Public Health Functions to Cannabis Policy**

### **Conclusions and Recommendations (pg. 174)**

- Conclusion 4-1 (pg. 175): Cannabis policy discussions need to consider impacts on public health. Inadequate inclusion of public health in cannabis policy decisions has limited the application of the core public health functions in states that have legalized cannabis for adult or medical use. Further development of the core public health functions as related to cannabis is therefore needed.
- Recommendation 4-1 (pg. 175): The Centers for Disease Control and Prevention, in conjunction with its federal, state, tribal, and territorial partners, should create an adaptable public health surveillance system for cannabis. This surveillance system should include, at a minimum, cannabis cultivation and product sales, use patterns, and health impacts. It should also include all the essential components of a public health surveillance system: a surveillance plan, data collection, data analysis, data interpretation, data dissemination, a link to action, and regular evaluation.
- Conclusion 4-2 (pg. 176): Cannabis policies have been developed without adequate protection against undue industry influence. Industry lobbying and conflicts of interest have interfered with the policy development. As the industry has expanded, it has stymied regulations intended to protect public health by downplaying the risks and overstating the benefits of cannabis.
  - \*\*\* The U.S. Pharmacopeia (USP), an independent, scientific nonprofit organization, sets standards for the quality, safety, and purity of various products, including medicines, food ingredients, and dietary supplements. USP is actively involved in establishing quality standards for cannabis and cannabis-derived products to protect public health. It has established procedures for testing of identity and composition, detection of contaminants, and validation of analytical methods. The laboratory testing methods encompass several cannabinoid compounds, including delta-8-THC. USP has also developed reference standards to ensure accurate identification and measurement of constituents and sampling considerations to improve representative analysis, labeling, and packaging resources. And it is developing a cannabis inflorescence (flower) monograph for the Herbal Medicines Compendium, scientifically valid methods, information on physical reference standards, and acceptance criteria for establishing the identity of cannabis chemotypes, content of cannabinoids and terpenes, and limits on contaminants (Sarma et al., 2020). Although the standards are in development for primarily medical cannabis products, the reference materials and laboratory methods could be used to improve the quality of laboratory safety for cannabis products consumed for any reason.
- Recommendation 4-2 (pg. 177): The U.S. Pharmacopeia has established product quality and analytical standards for cannabis inflorescence (flower) and is developing standards for cannabis extracts incorporated into pills and edibles. As these standards are completed, state cannabis regulators should adopt and enforce them to ensure the safety and quality of all legal cannabis products.

- Conclusion 4-3 (pg. 177): The U.S. Preventive Services Task Force has guidelines for screening adult patients for substance use. Education and training of clinicians related to the effects of cannabis use, as well as the management of patients using cannabis, could improve clinical care.
- Recommendation 4-3 (pg. 178): State cannabis regulators should require training and certification for all staff at cannabis retail outlets who interact with customers. The training should address the effects of cannabis on humans, prevention of sales to minors, warnings about cannabis-impaired driving, cannabis use in pregnancy, high-concentration or high-potency products, and how to identify signs of impairment. The effectiveness of the training should be assessed and the content updated as new scientific information about the positive and negative impacts of cannabis emerges.
- Recommendation 4-4 (pg. 178): The Centers for Disease Control and Prevention (CDC), in coordination with other relevant agencies, should develop and evaluate targeted public health campaigns directed mainly toward parents and vulnerable populations (e.g., youth, those who are or are likely to become pregnant, adults over age 65) about the potential risks of cannabis; how to identify risky behavior, such as the use of cannabis in combination with alcohol or prescription drugs; and risk mitigation strategies, such as lower-risk use guidelines and safe storage. These public health campaigns should include discouraging unhealthy use, such as the use of cannabis in combination with other substances (alcohol, tobacco, or drugs), and the increased risk associated with the use of high-concentration or high-potency products.
- Recommendation 4-5 (pg. 178). Congress should remove restrictions on the Office of National Drug Control Policy (ONDCP) from studying the impacts of cannabis legalization. The ONDCP should be allowed to support research on the impacts of changes in cannabis policy.

## **Chapter 5: How Cannabis Policy Influences Social and Health Equity**

### **Conclusions and Recommendations (pg. 208)**

- Conclusion 5-1 (pg.208): Cannabis prohibition and traditional law enforcement tools (arrest and prosecution) have disproportionately impacted communities of color, leading to adverse collateral consequences that negatively affect people’s lives in such areas as education, employment, and health care access. While policy reforms have decreased arrest rates, evidence suggests that racial inequities may persist, highlighting the need for further action to address these inequities.
- Recommendation 5-1 (pg. 210): Jurisdictions responsible for the enforcement of cannabis laws should endeavor to regularly gather and report detailed data concerning the use of criminal enforcement tools to enforce cannabis policies. These tools include: arrests, sentences, incarceration (pre- and post-adjudication), and diversion programs (e.g., drug courts, law enforcement–assisted diversion, treatment programs). These data should be available to the public and should include details about the specific cannabis violation (e.g., impaired driving, illicit trafficking, distribution to minors, possession, possession with intent to distribute, probation or parole violation) and the demographics of those in contact with law enforcement (e.g., race, sex, age, criminal history).
- Recommendation 5-2 (pg. 211): State cannabis regulators should systematically evaluate and, if necessary, revise their cannabis social equity policies to ensure that they meet their stated goals and minimize any unintended consequences. Policy makers should meaningfully engage affected community members when developing or revising these policies.

- Conclusion 5-2 (pg. 211): In states that have implemented record relief provisions for cannabis offenses, automatic or government-initiated relief is more effective than petition-based relief.
- Recommendation 5-3 (pg. 211): Where states have legalized or decriminalized adult use and sales of cannabis, criminal justice reforms should be implemented, and records automatically expunged or sealed for low level cannabis-related offenses.
- Conclusion 5-3 (pg. 212): Employer drug testing has been applied inequitably and could impair access to employment, particularly in communities of color. Many employers are required to test employees for drug use under the Drug-Free Workplace Act, but many are not. Two-thirds of states where cannabis is legal for adult use have laws protecting employees' right to use cannabis while off duty.
- Conclusion 5-4 (pg. 213): Retail access to cannabis is often concentrated in neighborhoods with historical disadvantages. Increased retail access to cannabis is associated with increases in (1) demand for health care services, (2) poison control calls directly due to cannabis, (3) cannabis use and cannabis-related hospitalization during pregnancy, and (4) cannabis use in adults and young adults.
- Conclusion 5-5 (pg. 213): Drug testing in pregnancy is applied inequitably, particularly to people of color, and may deter those who use cannabis from seeking prenatal care. People who are pregnant and are using cannabis will benefit from clinical and social support; education about fetal risk; and referral to nonjudgmental, evidence-based interventions or specialty treatment, as needed, rather than being arrested or reported to child protective services.

## **Chapter 6: Available and Needed Research on Cannabis Policy**

### **Conclusions and Recommendations (pg. 233)**

- Conclusion 6-1 (pg. 233): The risks associated with THC consumption (including psychosis, suicidal ideation, and cannabis use disorder) increase as the dose increases. Legalizing products with a high concentration of THC allows users to administer high doses in a short time and may increase cannabis-related harms. Research is urgently needed to describe the relationship between high-concentration THC products and adverse effects to better inform public policy.
- Recommendation 6-1 (pg. 235): The National Institutes of Health; the Centers for Disease Control and Prevention; state, local, and tribal health authorities; and private entities should support a research agenda focused on:
  - public health outcomes of different approaches to cannabis regulation,
  - efficacy of tests used to determine cannabis impairment, health effects of cannabis use (by product, amount, and frequency) by specific populations,
  - health effects of emerging cannabis products, and
  - mitigation of the risks of cannabis use.