HEALTH

How Four States Incorporated Public Health and Cannabis Policy: A Case Study

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The National Conference of State Legislatures is the bipartisan organization dedicated to serving the lawmakers and staffs of the nation's 50 states, its commonwealths and territories.

NCSL provides research, technical assistance and opportunities for policymakers to exchange ideas on the most pressing state issues, and is an effective and respected advocate for the interests of the states in the American federal system. Its objectives are:

- Improve the quality and effectiveness of state legislatures.
- Promote policy innovation and communication among state legislatures.
- Ensure state legislatures a strong, cohesive voice in the federal system.

The conference operates from offices in Denver, Colorado and Washington, D.C.

Introduction

The Cannabis genus has been grown and used throughout history for industrial, medicinal, spiritual, nutritional and agricultural purposes. Individual states started classifying cannabis as a poison or other dangerous substance in the early 1900s[1], and the federal Marihuana Tax Act of 1937[2] effectively prohibited the growing and use of cannabis for any reason.

The U.S. Drug Enforcement Administration[3], which enforces federal controlled substances laws, can prosecute anyone involved with growing, manufacturing or distributing illicit products in the United States, including cannabis.

During the years of cannabis prohibition, from the Tax Act through the creation of the modern Controlled Substances Act in 1971, cannabis became the most-used federally illicit substance in the U.S.

According to the 2020 National Survey of Drug Use and Health[4], 49.6 million people (17.9%) age 12 and older reported using cannabis in the last year.

The Controlled Substances Act[5] (CSA) categorizes a wide range of substances regulated by federal law into a five-schedule system based on their potential for abuse, current scientific knowledge regarding the substances and their risk to public health, among other criteria. Cannabis is listed in Schedule I, with heroin, LSD, ecstasy and other products considered to have the highest potential for abuse and has no currently accepted medical use in treatment in the United States, according to the CSA.

About this Report

This report shares experiences and lessons learned from four states that have regulated nonmedical adult cannabis use. It is not a discussion of whether a state should legalize medical or nonmedical cannabis. Instead, the report describes the varied processes used by state policymakers to regulate cannabis for nonmedical adult use, the role of state legislatures, public health considerations and policy changes made over time. Federal law prevents the use of cannabis, except for low-THC hemp products and FDA-approved medications derived from cannabis. Neither the author nor NCSL takes any position on individual state cannabis regulations, legalization or any other cannabis-related state policy issue.

The Controlled Substances Act

The Controlled Substances Act (CSA) defines "marijuana" as cannabis plants containing more than 0.3% delta-9-tetrahydrocannabinol (THC)—the psychoactive component of cannabis—on a dry weight basis. Plants of any genus of the cannabis plant and any part of that plant, whether growing or not, with 0.3% or less THC are deemed "hemp."

Cannabis with more than 0.3% delta-9-THC continues to be controlled as a Schedule I drug under the CSA, with no approved use by the Food and Drug Administration, except for approved sources of marijuana as the subject of research by qualified investigators under appropriate research protocols.

Hemp and hemp products are not controlled under the CSA but are subject to other federal laws and regulation such as the Agriculture Improvement Act and the Federal Food, Drug and Cosmetic Act. Most of the oversight and regulatory authority for the cultivation and production of hemp is with the Department of Agriculture, and regulatory authority for products derived from or containing hemp intended for human consumption is with the FDA.

Under the 10th Amendment of the U.S. Constitution, states—or "the people"—retain all powers not delegated by the Constitution to the federal government. As such, California was the first state to legalize cannabis for medical use in 1996, and as of July 2022, 37 states, three U.S. territories and the District of Columbia had also done so. While these states regulate cannabis within their boundaries, cannabis remains illegal federally.[6]

Over the decade after California regulated cannabis for medical use, states began legalizing nonmedical adult cannabis use (also referred to as recreational use). Colorado and Washington voters in 2012 were the first to do so, and as of July 2022, 19 states, two territories and the District of Columbia permit recreational use, and this list continues to grow.

The regulation of nonmedical adult cannabis use requires states to tackle numerous policy issues, ranging from business licenses and taxes to public health and safety. This report explores the experiences of states that have regulated nonmedical adult cannabis use and includes four state case studies.

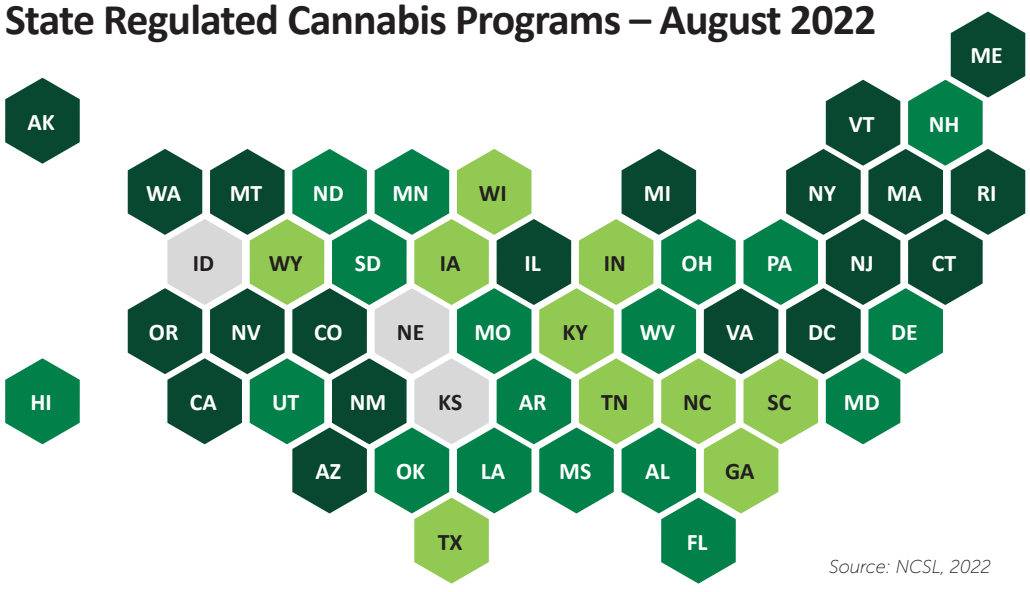
The report's focus is on nonmedical adult cannabis use policies through the lens of public health, including the role of public health agencies, researchers and data. Challenges and lessons learned include issues surrounding the role and protection of public health, data collection and monitoring, interested party engagement, education, and social equity.

Background: Assessing the Field

Cannabis

Cannabis—known colloquially as marijuana, weed, pot or dope, among other names—refers to the dried flowers, leaves, stems and seeds of the cannabis plant. Cannabis contains more than 100 compounds or cannabinoids,[7] some of which produce a psychoactive effect or "high," like tetrahydrocannabinols (THC; most commonly delta-9 tetrahydrocannabinol). Other compounds include cannabidiol (CBD), which is not intoxicating. Cannabis containing over 0.3% delta-9 THC and products derived from it remain categorized as Schedule I[8] under the federal Controlled Substances Act,[9] with "no currently accepted medical use in the United States, a lack of accepted safety for use under medical supervision, and a high potential for abuse."

State Regulated Cannabis Programs – August 2022



Source: NCSL, 2022

Limited adult possession and growing allowed, no regulated production or sales. DC

- Adult & medical use regulated program
- Adult use only no medical regulated program
- Comprehensive medical cannabis program
- CBD/Low THC program
- No public access cannabis program

Cannabis Timeline

1996-2000 Medical Cannabis Crops Up

California voters used the state's voter-led initiative process[10] to propose and pass Proposition 215,[11] the Compassionate Use Act, marking the beginning of state regulation of medical cannabis in 1996. The proposition allowed "seriously ill" Californians to obtain and use cannabis or cannabis products for conditions including AIDS, anorexia, arthritis, cancer, chronic pain, glaucoma, spasticity and eventually other illnesses or symptoms as indicated by a health professional. Eight states had approved the medical use of cannabis via voter initiatives by the end of 2000. Maine was the first to do so legislatively in 1999.

2012-18 Another Seed Is Planted: Adult Use

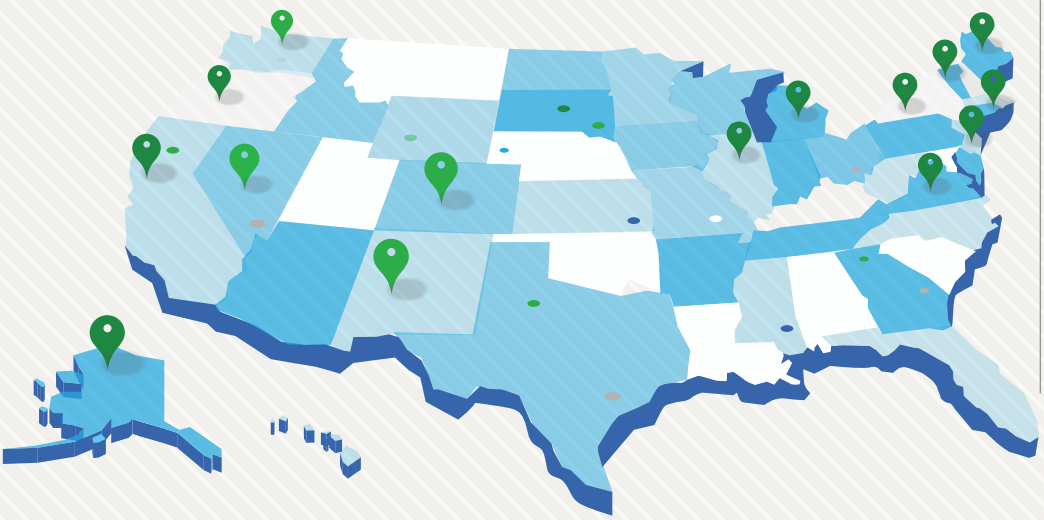
Voters in Colorado and Washington are the first to pass ballot initiatives[12] to regulate cannabis for nonmedical adult use in 2012. Voters in Alaska and Oregon followed suit via the initiative process in 2014; Nevada[13] voters approved nonmedical use on their 2016 general election ballot; and Michigan[14] voters supported the state's Regulation and Taxation of Marihuana Act on their 2018 general election ballot.

2014-17 An Alternative Grows

Over a dozen states without medical cannabis allow access to hemp-derived products containing less than 0.3% THC or CBD-only products for people with certain health conditions or symptoms.

Reports of conditions in children and adults improving through the use of low-THC or CBD-only products led to increased interest from others wanting to try the products—without moving, traveling to other states or risking breaking state and federal laws[15] to do so.

Since 2018, six of these low-THC-program states have enacted comprehensive medical cannabis regulations that allow a wider variety of THC-containing products; 10 states have only low-THC programs.



2019-22 Lawmakers Pass Nonmedical

The Illinois General Assembly becomes the first to pass comprehensive legislation[16] to create, regulate and license a commercial nonmedical use system[17] in 2019. Vermont lawmakers, who approved nonmedical cannabis use in 2018, passed SB 54 in September 2020[18] to create a regulated commercial industry. New Jersey legislators referred approval of nonmedical cannabis to voters[19] in November 2020 and enacted it through legislation in 2021. Lawmakers in New Mexico,[20] New York[21] and Virginia[22] approved nonmedical cannabis in 2021, followed by Rhode Island[23] in 2022.

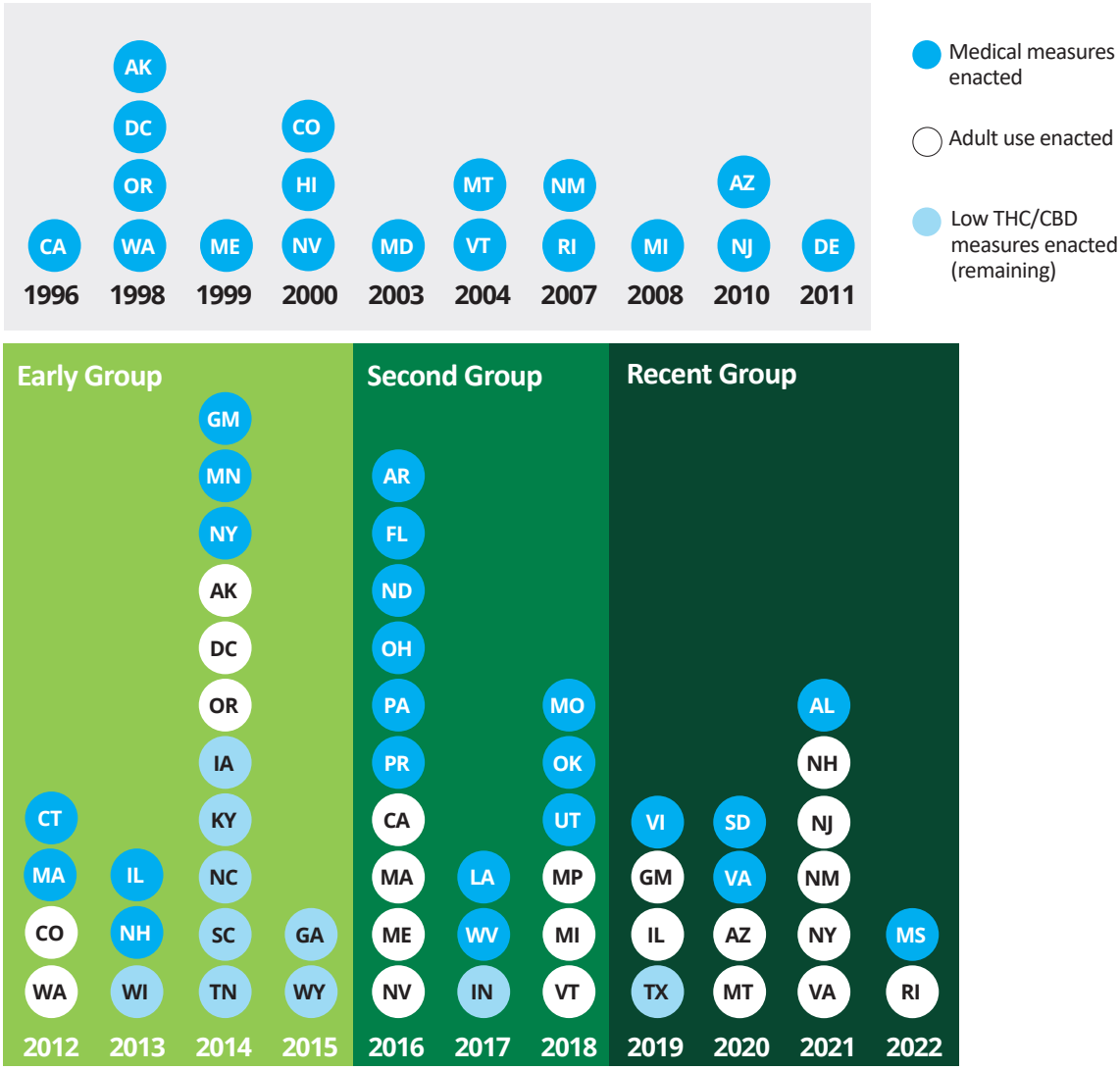
As of June 2022, 37 states, three territories and the District of Columbia had enacted regulations[24] for cannabis use and production for medical purposes, and 19 states, two U.S. territories and the District of Columbia had enacted nonmedical programs. Thirteen states enacted nonmedical programs via ballot measure, and six state legislatures took nonmedical measures into their own hands.

For the purposes of this report, states are categorized by early, second and most recent groups to adopt nonmedical cannabis measures.

- Early states: 2012-15, including Alaska, Colorado, Oregon and Washington.
- Second group of states: 2016-18, including California, Maine, Massachusetts, Michigan, Nevada and Vermont.
- Most recent group of states: 2019-22, including Arizona, Connecticut, Illinois, Montana, New Jersey, New Mexico, New York, Rhode Island and Virginia.

Twenty-four states allow an initiative process[25] for citizens to place proposed statutes, or in some cases state constitutional amendments, on the ballot—bypassing the state legislature. Voters in 17 of the 37 states with medical use used the initiative process. As of May 2022, 12 of the 19 states with legal nonmedical adult cannabis put it to a vote of the people.

State Cannabis Laws or Measures Approved by Year



Source: NCSL Research

While surveying methods and results may vary,[26] public opinion about cannabis has shifted since the first poll in 1969. A poll and study by Pew Research Center[27] in 2019 found over 9 in 10 Americans surveyed supported cannabis legalization for medical or nonmedical use.

Cultivating a Policy Framework With a Public Health Lens

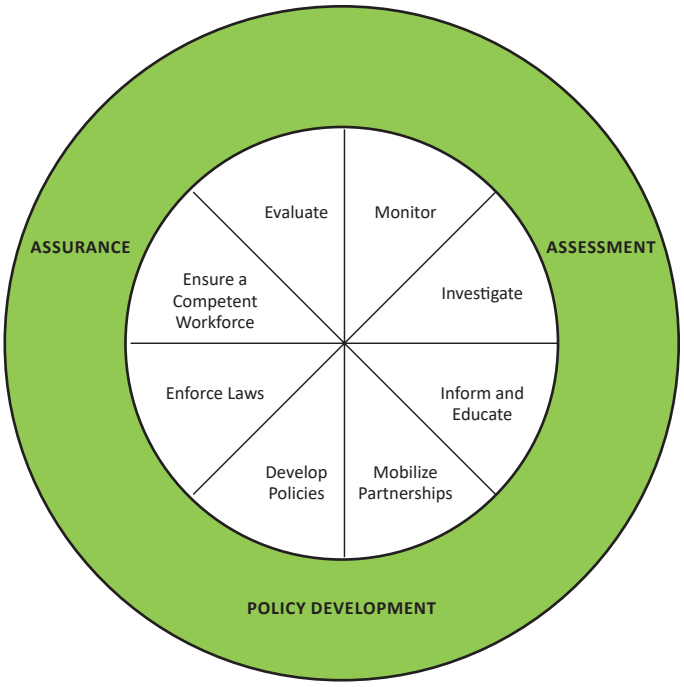
Dozens of the initial decisions required to regulate cannabis at the state level relate to public health. These include licensing requirements and fees, taxes, revenue designation, business structures, product testing, packaging and labeling, public education and prevention campaigns.

The cooperation of state and local health officials brings together an array of perspectives and expertise to address important issues. For example, in 2016, Colorado Department of Public Health and Environment researchers[28] established a public health framework (Figure 1) for nonmedical adult cannabis use. Using the core functions of public health, they identified several opportunities, including:

- Assessing health issues through surveillance.
- Developing policy through education and community partnerships.
- Providing assurance of compliance through enforcement, a competent workforce and evaluation.

An example of applying a public health framework to cannabis policy decisions may include directing local law enforcement agencies to use data collection and improved monitoring to determine cannabis-impaired driving trends in the state. Another example is tracking health issues associated with cannabis use, such as overconsumption or product contamination. States have employed a variety of methods to incorporate public health in cannabis regulatory decisions, including involving public health agencies, assigning oversight to committees with public health-focused members, requiring data tracking, surveillance and reporting.

Public Health Framework for Legalized Marijuana: Colorado Department of Public Health and Environment, 2015



Business Licenses

One of the first public health policies often addressed during the state regulatory process is whether to limit the number of cannabis business licenses. Policymakers have considered license limits[29] for a variety of reasons, including to monitor the production and sale of cannabis or reduce the amount of product potentially sold on the unregulated market. Other policymakers believe that not limiting licenses allows the free market to determine the right balance of businesses[30] organically. Limits may also unintentionally increase licensing fees or increase a state's legal fees[31] defending licensing decisions.

Early-adopting states typically left licensing cap decisions to localities and did not intentionally cap any license category, including cultivators, processors, manufacturers, laboratories, transporters or dispensaries.

Both early and recent nonmedical states typically gave businesses licensed under existing medical use programs priority to apply for nonmedical licenses because of their presumptive eligibility based on operational history and compliance. Once those applications were considered, newcomers could apply for nonmedical business licenses.

Some states employed a tiered licensure structure—licensing by area cultivated or plant count—to best meet production and market needs, reducing the likelihood of overproduction. In a tiered licensure system, states may estimate the total amount of product needed to support demand and divide that total into licenses by size. Controlling production by license sizes or quantity may also play a price stabilization[32] role, avoiding a "race to the bottom" due to more business competition.

Other fees for product manufacturing or retail licenses are more often a flat fee, but some are adjusted based on gross sales or value of the operation. Colorado, Illinois, Maine, Massachusetts, Nevada, Oregon and Washington are among those states with flat fee licenses for both product manufacturing and retail sales.

Taxes

Taxes related to nonmedical cannabis production and retail sales vary widely by state,[33] as does the allocation of associated fees and revenue. According to the Tax Policy Center[34] and the Institute on Taxation and Economic Policy,[35] both nonpartisan think tanks, methods to calculate cannabis taxes include but are not limited to:

- As a percentage of the retail or wholesale price of the total sale, ranging from 5%-17% for sales tax and 10%-37% for excise tax.
- As a percentage of product weight or volume.
- By amount of THC in the product.

According to the independent policy nonprofit Tax Foundation,[36] tax designs have both upsides and downsides:

- Applying higher taxes on regulated sales may turn buyers to the unregulated market.
- Lower taxes may not generate adequate resources for state regulatory enforcement, industry oversight, or intended beneficiaries like public health or education.
- Policy analysts[37] emphasize states' interest in balancing revenue from regulated cannabis products and discouraging the illicit market.

While state legislatures control state budgets, voter-led ballot initiatives may often prescribe the allocation of revenue generated by nonmedical cannabis to various public health items, including:

- Education and prevention.
- Collection of data related to public health and substance use.
- Substance use disorder treatment.
- Training and education for regulators and law enforcement.
- Efforts to repair previous cannabis-related criminal offenses.

The following are examples of public health-related state cannabis revenue allocations from the Institute on Taxation and Economic Policy[38] and National Conference of State Legislatures.

Approximate Initial State Revenue Sources and Reported Priority Allocations for Early-Adopting States

ALASKA

Excise Tax: —

Sales Tax/Retail Tax: —

Other Tax: $50/oz. bud and flower; other parts $15/oz.

- [x] Use: Regulation and Enforcement/ General Enforcement (recidivism reduction fund)
- [ ] Use: Health Care
- [x] Use: Substance Use Disorder Treatment
- [x] Use: Prevention and Education
- [x] Use: Data and Research
- [ ] Use: Improve Social Equity
- [x] Use: State General Fund

2014

COLORADO

Excise Tax: 15% wholesale

Sales Tax/Retail Tax: 2.9% sales tax

Other Tax: 10% special cannabis tax

- [x] Use: Regulation and Enforcement/ General Enforcement
- [ ] Use: Health Care
- [x] Use: Substance Use Disorder Treatment
- [x] Use: Prevention and Education
- [x] Use: Data and Research
- [x] Use: Improve Social Equity
- [x] Use: State General Fund

2012

NEVADA

Excise Tax: 15%

Sales Tax/Retail Tax: 10% retail; 6.85% state sales tax

Other Tax:

- [ ] Use: Regulation and Enforcement/ General Enforcement
- [ ] Use: Health Care
- [ ] Use: Substance Use Disorder Treatment
- [x] Use: Prevention and Education
- [ ] Use: Data and Research
- [ ] Use: Improve Social Equity
- [x] Use: State General Fund (emergency fund)

2016

OREGON

Excise Tax: —

Sales Tax/Retail Tax: 17%

Other Tax:

- [x] Use: Regulation and Enforcement/ General Enforcement
- [ ] Use: Health Care
- [x] Use: Substance Use Disorder Treatment
- [x] Use: Prevention and Education
- [x] Use: Data and Research
- [ ] Use: Improve Social Equity
- [ ] Use: State General Fund

2014

WASHINGTON

Excise Tax: 37%

Sales Tax/Retail Tax: 6.5%

Other Tax:

- [ ] Use: Regulation and Enforcement/ General Enforcement
- [x] Use: Health Care
- [x] Use: Substance Use Disorder Treatment
- [x] Use: Prevention and Education
- [x] Use: Data and Research
- [ ] Use: Improve Social Equity
- [x] Use: State General Fund

2012

This table does not account for general funds appropriated to departments or agencies that may have used funds for these categories. Any local sales taxes applied are not included in this calculation.

Paths of the Early Adopters

Each state's pathway to regulating nonmedical adult cannabis use is different and establishes a unique process and program design. The earliest adopters—Colorado and Washington—pioneered uncharted territory with no models or road maps to follow other than existing, narrower medical use cannabis regulations.

Colorado's Groundbreaking Trail to Regulations

After Colorado voters approved Amendment 64[39] in November 2012, the governor created a 24-member task force by executive order[40] to develop regulation recommendations based on a set of guiding principles.[41] The recommendations report informed the enabling legislation. It was also used to create rules and regulations for the enforcement and oversight agency, the Marijuana Enforcement Division,[42] in the Department of Revenue.

Focus on Health

The group's initial task was to address issues including substance use and prevention, outreach to minors, public health, restrictions on advertising, product standards, and labeling and licensing.

Many of the task force's guiding principles[44] were targeted at public health-related concerns, including protecting the health and well-being of Colorado's youth, labeling for adult consumers, and keeping roads, schools and communities safe.

The task force, which included representatives of more than 10 state agencies, the medical profession, the cannabis industry, the General Assembly, medical cannabis users and the public, was divided into five working groups: Regulatory Framework; Local Authority and Control; Tax, Funding and Civil Law; Consumer Safety and Social Issues; and Criminal Law. Each group was led by two members who had expertise in the issue area and the authority to bring in additional subject-matter experts as needed.

Over the course of its work, the task force considered roughly 100 individual recommendations[43] developed by the working groups and approved 73, which were then consolidated into 58 recommendations in 17 categories.

ROLE OF THE LEGISLATURE

In addition to their involvement with the task force process, lawmakers needed to pass enabling legislation to enact the ballot initiative. The General Assembly's chamber leaders established a Joint Select Committee on the Implementation of the Amendment 64 Task Force Recommendations,[45] chaired by two prominent legislator-members of the task force, to craft legislation based on the task force's conclusions.

Colorado measures HB 13-1317[46] and SB 13-283[47] created most of Amendment 64's regulatory provisions. HB 13-1318[48] created the statutory framework for retail cannabis excise and sales taxes, which first required voter approval due to the state constitution.[49]

After initial regulation, several public and safety policy changes were deemed necessary and addressed through legislation and regulations:

- Updating packaging requirements.
- Regulating marketing and advertising.
- Requiring public notices and signage.
- Creating public education and youth prevention programs.
- Enacting THC purchase limits for medical program participants 18-20 years old.
- Establishing product testing and reporting.

ROLE OF PUBLIC HEALTH

According to Colorado's task force notes and key contacts, public health data and agency perspective were important in early cannabis policy discussions and processes. Representatives from the Colorado Department of Public Health and Environment were present at numerous working group and subgroup meetings. According to the former director of marijuana coordination, Andrew Freedman, the health department was thrown into a new role in a politically charged environment and had to be heard to put science first in the policymaking process.

The task force subgroups considered issues and questions[50] such as product labeling to prevent child consumption; locating stores and advertising sufficiently distant from schools, substance use treatment centers, mental health clinics and community colleges; defining driving under the influence; and educating the public.

Overall, the task force's recommendations[51] included:

- Creating specific packaging and labeling requirements.
- Limiting THC concentration for products infused with cannabis.
- Prohibiting the mixing of cannabis with nicotine or alcohol products by manufacturers.
- Defining safe cultivating, handling and laboratory practices.
- Establishing cannabis-related public education.
- Establishing continuing education for public-facing health professionals, educators and others.
- Creating an online cannabis education center for unbiased, fact-based information.
- Requiring data collection and studies.

Ultimately, enabling legislation[52] and other regulations addressed each recommendation.

The task force was charged with researching and establishing the tracking of public health outcomes related to nonmedical cannabis. To generate more data, the task force recommended tracking the following public health issues after nonmedical implementation:

- Patterns and prevalence of use.
- Acute health effects from contaminated cannabis products.
- Safety of edible cannabis products.
- Accidental ingestion of products by young children.
- Use among pregnant and breast-feeding women.
- Secondhand smoke concerns.
- Proper disposal practices.
- Laboratory testing.
- Substance misuse.
- Impaired driving.
- Implications for occupational health and safety.

Legislators were also encouraged to give responsibility to the public health department for monitoring, collecting and reporting cannabis use data and adverse health events, and for studying the emerging science related to health effects of cannabis use. The department provides a report[53] to the General Assembly and state agencies every two years.

LESSONS LEARNED AND CONSIDERATIONS FOR OTHERS

As the first state officials to explore this uncharted territory, key contacts in Colorado reflected that they could write volumes about what they wish they knew when they started out. Andrew Freedman and Lewis Koski have had over eight years to reflect on the state's innovative regulatory process to create a regulated nonmedical market in just over a year and a half.

> "I wish we would have had more of a framework for what [products] we could exclude and not exclude coming in."
>
> *— Andrew Freedman, former Director of Marijuana Coordination in Colorado*

Described by Governing Magazine as the nation's first "marijuana czar,"[54] Freedman said of his early days as the director of marijuana coordination, "So many things … I wish we understood that at the time." Koski, former chief investigator and director of the Colorado Marijuana Enforcement Division, added that they weren't aware of the gaps in the science at the time.

Initially, all product types—flower, concentrates, edibles, drinkables and others—were allowed because regulators didn't yet understand the potential health impacts of one product compared to another. Some popular edible products were linked to incidents[55] of overconsumption by consumers with little experience. Based on experience in Colorado and other early-adopting states, some states limit the availability of products such as edibles—including West Virginia's[56] current and Maryland's initial medical cannabis programs.

Freedman, who has since served as a cannabis policy consultant to dozens of states and countries, said the overarching goal when starting a regulatory system is to capture the currently illicit market. He also warned of overburdening participating companies and a young regulatory system by trying to do too many things at once. To borrow a recommendation on how to safely consume cannabis from California's Department of Cannabis Control, Freedman applies the "Start Low and Go Slow"[57] motto to a regulated market: "How does it do its best to protect public health and public safety … and how do you evolve that system?"

> "Even if they [public health community] didn't get everything they wanted, they thought it was an overall balanced and pretty fair process and that they were able to influence the regulations and have their voice heard."
>
> *— Lewis Koski, former Marijuana Enforcement Division Director*

Establishing a regulated cannabis market is not a one-and-done effort. In Colorado, dozens of bills are introduced every year to change some aspect—from subtleties to large issues—of the nonmedical adult use regulations.

Koski's process-oriented recommendation is to engage the community. Colorado "had a very deliberative election, deliberative legislative [and regulatory] process that included industry, local jurisdictions and state agencies at the Legislature helping to influence and come up with laws," he said. Including industry, he added, led to regulations that felt "fair and balanced" to all parties and made for a more transparent marketplace.

Washington Cascades Onto the Scene

Meanwhile, Washington voters passed Initiative 502[58] in the November 2012 general election, kicking off the state's nonmedical cannabis regulatory process.

The state had just over a year to establish rules to regulate and tax cannabis for people age 21 and older and to create a licensing system for cultivating, manufacturing and selling cannabis.

The initiative deemed the Washington State Liquor (and, eventually, Cannabis) Board as the regulatory and enforcement body. The Legislature's opportunity to consider nonmedical use regulations included new regulations and oversight of medical dispensaries.

ROLE OF THE LEGISLATURE

The Washington Legislature provided little general oversight prior to regulation of nonmedical adult cannabis use. Before the initiative, the Legislature had taken steps to clarify laws and encourage patient safety for the loosely regulated medical program. Only after the initiative, which outlined a highly regulated nonmedical industry, did lawmakers and other regulators consider parameters for new medical program regulations.

The Legislature enacted the initiative[59] in 2013, directing the liquor board to establish nonmedical cannabis industry rules and regulations. The Legislature also enacted measures to align language and clarify the definition of THC,[60] distribute revenues, define signage and create a dedicated marijuana account,[61] among other things.

According to Washington Sen. Ann Rivers, key people from the state health department and liquor board joined a bipartisan group of legislators, elected officials, law enforcement, medical cannabis program enrollees, and key industry members to discuss their concerns about medical program changes. After months of drafting and negotiating amendments for multiple bills,[62] including parts of previous partially vetoed bills,[63] legislators introduced and passed SB 5052,[64] which enacted the Cannabis Patient Protection Act, effective July 2015.

ROLE OF PUBLIC HEALTH

Washington officials described how public health considerations around nonmedical use regulations were of utmost importance. In addition to addressing economic and criminal justice system impacts, the initiative required[65] evaluation of health costs and product safety, as well as issues like public use, youth- and adult-use rates and related substance use concerns. State and private public health representatives were involved in discussions with the liquor board and representatives from all levels of government. National public health and policy experts also were consulted early in the process.

The state health department was involved due to its oversight of the medical cannabis program[66] and the health-related issues included in the nonmedical initiative, such as testing accreditation and data collection and reporting. In their public health messaging, agencies wanted to avoid projecting a norm of cannabis use through advertising or billboards.

Rivers and Rick Garza, director of the liquor and cannabis board, recalled how the U.S. Justice Department's 2013 Cole memorandum,[67] which provided guidance regarding cannabis enforcement for United States attorneys, influenced the state's process. The memo became the guidebook for setting nonmedical adult use regulations, including those related to public health, they said. Washington officials targeted several of the memo's enforcement priorities:

- Preventing distribution of cannabis to minors.
- Preventing sales revenue from going to criminal enterprises, gangs and cartels.
- Preventing state-authorized cannabis activity from being used as a cover for trafficking other illegal drugs or other illegal activity.
- Preventing violence and the use of firearms in the cultivation and distribution of cannabis.
- Preventing drugged driving and the exacerbation of other adverse public health consequences associated with cannabis use.

> "We had such a bipartisan effort, and we all worked closely together, communicating with one another and educating colleagues. We had the Cole memorandum laying out what the feds (Department of Justice) needed to see in order to not go after people and take action against the state. So that's what we used to develop (Senate Bill) 5052. It wasn't perfect, but it was important to have a medical registry and other safety measures for people."
>
> *— Sen. Ann Rivers, former Washington Senator*

LESSONS LEARNED AND CONSIDERATIONS FOR OTHERS

Experts said they faced many challenges as one of the first two states to regulate nonmedical cannabis. "It would have been nice to have a playbook from watching another state," Garza said.

Much like those in Colorado, Washington's experts compared their early efforts to today's structure and priorities. At first, regulators focused on the process and penalties for running afoul of rules and regulations. Regulators revisited the initiative language and realized they needed to regulate cannabis like alcohol with a public health perspective and followed similar guidance. "Nothing was wrong, it just took course corrections along the way," Garza said.

Washington program experts shared their lessons learned:

- Working together across agencies and political perspectives was key to coming to consensus on many important issues.
- Listening sessions with diverse participants allowed for a cooperative process. Engaging those most impacted by decisions may increase support for and compliance with final regulations.
- Sticking to the requirements and intent of the initiative provided opportunities to establish regulations such as where to allocate revenue and where to apply public health controls to sales limits or products.

"Do a very complete stakeholder process," Rivers said. "The tenants of the Cole memo were very good. Keep focused, highly regulate, tax well, keep everything transparent."

Rivers also noted the importance of engaging law enforcement and business representatives. "Have law enforcement recognize this is a legal business enterprise," she said. "Businesses want to protect their investments by being good actors, but law enforcement has to be reasonable. Set up a system of helping businesses succeed and not fail. Not a penalty system, but a 'We're here to help you and educate you,' system."

Garza added that collaboration, communication and public forums are important. "Gather as much information as possible from stakeholders and be inclusive," he said. "Consider starting strict and loosen up, or start the system slowly. It may be easier to stand up a system that way because you can't put the genie back in the bottle."

Social Equity: Turning a New Leaf

Drug laws historically have been disproportionately enforced[68] in lower income communities and communities of color. Some states have begun addressing social equity in their cannabis policies. States in the second wave, such as Massachusetts and Illinois, considered social equity issues early on, and early-adopting states have been learning from their experiences.

Social Equity Programs

Social equity programs,[69] known as SEPs, are intended to create pathways for people from communities negatively affected by cannabis prohibition to enter the industry and become licensees. SEPs may include provisions ranging from expungement of previous low-level cannabis-related crimes to free technical assistance and training programs. The training programs may provide education, skill-based training and tools for success in the industry in four main areas: entrepreneurship, managerial-level workforce development, reentry and entry-level workforce development, and ancillary business support. They often also include free or reduced-cost application and seed-to-sale program fees, exclusive access to certain license types, and expedited license application review for people with at least 10% ownership in a business, among other benefits.

Colorado and Washington reconsidered and incorporated SEPs into their established programs. Colorado enacted a social equity license category in 2020.[70] "Regarding social equity, if you ignore it at the beginning, you get fewer and fewer chances to go back to it," Colorado's Andrew Freedman said. "It needs to be thought of as part of a whole system."

Washington's initiative measure was written to be a "framework by the people to stop treating marijuana as a crime and try a new approach." Washington enacted legislation in 2020[71] to allow additional cannabis retail licenses for social equity purposes and established a Legislative Task Force on Social Equity in Cannabis. The task force's recommendations informed comprehensive 2021 legislation[72] that created a roster of mentors to support and advise social equity applicants[73] and current licensees who meet specific criteria.[74]

Criminal record sealing or expungement of previous minor cannabis offenses are typically included in recently adopted programs, while earlier adopting states, including Colorado, took measures[75] to clear potential career- or opportunity-limiting convictions.[76]

In early 2019, Massachusetts became the first state to include a significant SEP as part of its post-legislation cannabis industry licensing process.

Illinois was the first state to incorporate equity from the start. "We took it (social equity) though the entire legislative process," former Sen. Hutchinson said. "Every single decision is connected back to who was harmed the most by the war on drugs."

Michigan, where the population is roughly 14% Black and 4.5% Hispanic or Latino, began designing an SEP in 2020 after an industry survey showed that only about 4% of its cannabis license holders were Black and 1.5% were Hispanic or Latino. In response, the Marijuana Regulator Agency created a Racial Equity Advisory Workgroup, which announced its final recommendations in early 2021.[77] The state now reports dozens of licensed entities with both published and unpublished social equity plans.[78]

The long-term impact of SEPs remains to be seen, although research shows[79] that more time may be needed to diversify the industry, particularly in states with mature markets.

A Second Path from the East

Cannabis ballot initiatives arrived on the East Coast with the 2016 general election. Voters in Massachusetts and Maine[80] enacted measures to regulate and tax nonmedical cannabis. States that legalized in the second wave or after had the benefit of learning from earlier states' experiences and adjusting to meet their needs.

Massachusetts Sails Onto the Scene

Massachusetts passed Question 4,[81] establishing guidelines and short timelines for the commonwealth to implement a regulated nonmedical cannabis system. In fact, the deadlines were so short that lawmakers voted to delay the start of nonmedical sales from Jan. 1 to July 1, 2018.

ROLE OF THE LEGISLATURE

As can be the case in any ballot initiative, lawmakers needed to amend the measure's language for it to fit Massachusetts' legal style and language. The General Court was prepared for this, having formed a Special Senate Committee on Marijuana in 2015. The committee gathered firsthand information[82] from Colorado and Washington and produced a report of recommendations.[83]

In addition to enumerated public safety and economic issues, including banking, impaired driving and the unregulated social market, some of Massachusetts' key public health concerns[84] around regulation included:

- Youth access and prevention education.
- Product testing and requirements.
- Potential negative health outcomes, including addiction.
- Limiting over-commercialization.

House Bill 3818,[85] enacted in 2017 addressed lawmakers' concerns with the initial language of the Regulation and Taxation of Marijuana Act. Specifically, the measure:

- Increased the excise tax on nonmedical cannabis sales.
- Provided local control options.
- Created the Cannabis Control Commission to set rules and regulations as well as oversee the industry.
- Created a Cannabis Advisory Board of 25 appointed members to advise the cannabis commission.
- Increased the number of cannabis commissioners to five, and gave the governor, attorney general and treasurer each an appointee.

ROLE OF PUBLIC HEALTH

The Cannabis Control Commission was charged with implementing and administering the laws enabling access to medical and adult use cannabis "safely, equitably and effectively."[86] As required by statute,[87] each of the five commission members brought specific experience:

- One member with experience in public health, mental health, substance use or toxicology.
- One member with a background in public safety.
- One member with experience in corporate management, finance or securities.
- One member with professional experience in oversight or industry management, including commodities, production or distribution in a regulated industry.
- One member with a background in legal, policy or social justice issues related to a regulated industry.

Kay Doyle, an attorney appointed to the commission for her extensive regulatory background, previously served as deputy general counsel to the Department of Public Health and was experienced with bill drafting and with the medical cannabis program. Fellow appointee Shaleen Title, an attorney, consultant and business owner deeply involved with cannabis production and distribution and social justice issues, was also a co-author of Question 4.

In interviews, Doyle and Title provided background about the early cannabis commission process. The General Court directed the commission to create a regulated nonmedical cannabis system that was different from those of other states. Title said the commission's overarching intent was to design a comprehensive regulatory system, handling all areas of oversight equally. "It needed to be transparent, listen to stakeholders and the public as much as state agencies and respect the will of the voters while protecting public health and safety," she said.

The commission held numerous meetings and opportunities for community outreach, including with the health department, to hear feedback on draft regulations. Other state agencies, including the Departments of Agriculture and Revenue, participated in hearings and other conversations. Public health concerns around drugged driving and consumption sites were brought by law enforcement and other participants.

STATE HOUSE, BOSTON.

State public health officials may have been hesitant to participate in nonmedical cannabis discussions out of concern for appearing to support a federally illegal activity that could have negative health implications, Doyle said. However, the health department was instrumental—and led the nation—in establishing product-testing protocols for medical cannabis that would now include nonmedical products.

The 25 members of the Cannabis Advisory Board,[88] which made recommendations to the commission, had diverse interests and backgrounds and included the director of the Tobacco Cessation and Prevention Program, who was the designee of the public health commissioner. The board's four subcommittees addressed the cannabis industry, market participation, public safety and community mitigation, and public health.

The public health subcommittee's purview was to make recommendations on products and concentration, labeling and packaging, marketing, advertising, and related public health issues. Its eight members included a public health professor, people experienced with medical cannabis, a physician and health department official, a cannabis business operator and a police chief.

According to Doyle and Title, the commission's top considerations were public health and safety issues. To guide its decisions on cannabis advertising, diversion prevention and public health data, the commission applied lessons learned from alcohol and tobacco regulation. For example, advertising targeted at individuals younger than 21 years of age is prohibited, although such regulations are difficult to enforce.

Doyle added that an emerging issue of concern to policymakers was misleading health claims made regarding cannabis and cannabis-infused products that are not supported by evidence from clinical trials, even regarding conditions as serious as cancer or COVID-19. While the federal Food and Drug Administration has issued warnings to companies marketing CBD or other hemp-derived products with unsupported health claims, state regulators have struggled to address misleading claims in their cannabis programs.

Massachusetts' nonmedical cannabis statute also authorized the commission to establish a research agenda[89] and publish reports[90] on cannabis-related issues, including:

- General use patterns and trends.
- Health and public health.
- Public safety.
- Economic and fiscal impacts.
- Social equity.
- Industry.
- Illicit market analysis.
- Impact on educational systems.

LESSONS LEARNED AND CONSIDERATIONS FOR OTHERS

Initially, the Department of Public Health had concerns about problems with cannabis testing, such as the accumulation of heavy metals and other chemicals. Doyle noted the value of hiring toxicologists and other scientists early in the process to assess the issues around testing and vaping devices and related contaminants. Awareness of the health effects[91] related to chronic vaping and the ingestion of toxicants and other chemicals is a challenge for all states.

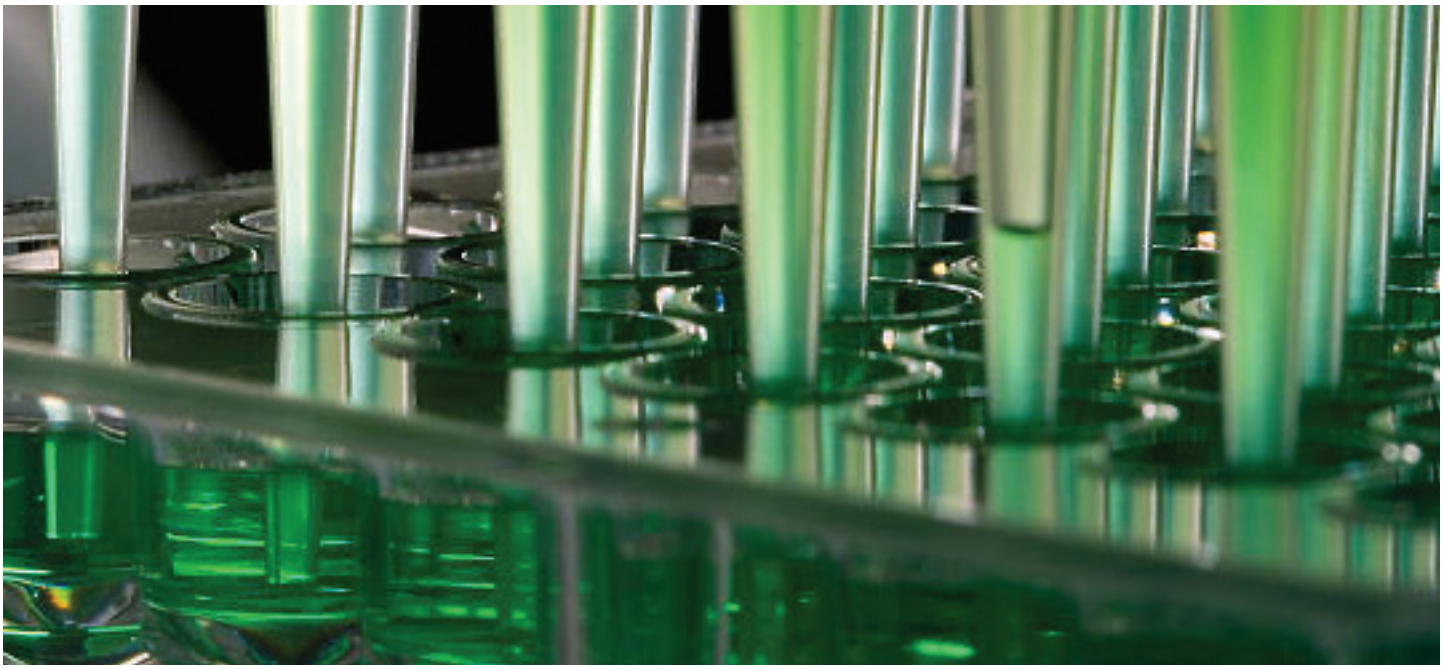
"Some cannabis consumers don't understand that testing done by states is not of the same quality as [for] pharmaceutical products," Doyle said. "We don't know a fraction of what we should about what people are putting in their bodies, which is a competing priority within public health."

Doyle and Title wished they had greater access to data at the start of the process. For example, data on emergency room visits related to the unintended ingestion of cannabis products would have been helpful. "It was a relatively small [occurrence], but it went up," Title said. "We didn't have access to whether the products were regulated, or what kind. We want data to be able to improve whatever the problem is. Are advertising limits working? I wish we had access to that information."

Both advised other state officials to prioritize public health, including using universities to serve as reference labs to double-check results from private labs. There are concerns about private labs in Massachusetts[92] and elsewhere[93] using inconsistent testing methods and deliberately or accidentally misreporting results to benefit their customers.

The General Court's report and the former commissioners' remarks reflected lessons from earlier adopting states.[94] From Colorado and Washington, they learned about youth accessibility and the perception of safety, the challenges of cannabis-infused edible products, the potential risks and of high-concentration products, and the lack of well-accepted standards for determining cannabis impairment while driving.

Title advised state officials to take their time, talk to other states and do their own research. "Don't be overwhelmed by pressure to speed up," she said. "There is a lot of good research from other states, and a lot of good comparisons to tobacco and alcohol, so ask the experts."



Illinois Joins Uniquely

As part of the most recent wave of states allowing nonmedical cannabis use, Illinois is among the states that bucked the trend of voter-initiated measures. House Bill 1438,[95] enacted in 2019, allowed for nonmedical use, and as of May 2022, the state was processing conditional nonmedical adult use cannabis dispensary licenses. The state also decentralized nonmedical cannabis oversight across 13 agencies, all orchestrated by former state Sen. Toi Hutchinson, who served as senior advisor of cannabis control to Governor J.B. Pritzker during regulation implementation.

ROLE OF THE LEGISLATURE

Illinois Rep. Kelly Cassidy, then-Sen. Hutchinson and other legislators together drafted a nonmedical adult use cannabis regulation bill in 2019. Lawmakers had considered nonmedical cannabis-related legislation before then, but the bills had not advanced. The group toured cannabis operations and spoke with regulators and agency staff in Colorado. In Illinois, the group held hearings with regulators and law enforcement from other states,[96] and conducted a statewide listening tour[97] with a variety of interest groups and members of the public.

"We had the luxury of time on our hands and could wait, because at the time [we] were under a governor who was very hostile against cannabis," Cassidy said. "We used that time to do the groundwork and do it as thoroughly as we could. We cast a very wide net to get input from people touched by it [cannabis] in a number of ways. … Eventually, there was a negotiating table with a couple dozen folks representative of those groups."

By including input from people in communities disproportionately affected by the criminalization of cannabis, the legislation[98] clarified how regulated nonmedical cannabis would benefit communities and people with cannabis-related arrests or convictions. It also created the grant program Restore, Reinvest, Renew,[99] known as R3, to fund nonprofits, faith-based organizations, businesses and other community or neighborhood associations in highly affected communities that address civil legal aid, economic development, reentry, violence prevention or youth development. The R3 board of directors oversees program qualifications and grantees in specified areas and is required to have at least four members who have been incarcerated.

ROLE OF PUBLIC HEALTH

When crafting the legislation, policymakers recalled bringing public health to the table.

The Illinois Department of Public Health oversees the medical cannabis program operations but does not regulate it directly. As such, the department helped ensure the medical program was protected while nonmedical use was established. "You don't want [nonmedical] use to come in and completely take it over," Hutchinson said. "In a lot of states, once you bring that in medical really struggles."

The department created a task force to protect the medical program and one to focus on public education. "We need public health on this issue," Hutchinson said.

The health department contributed to the Let's Talk Cannabis Illinois website,[100] maintained by the Department of Human Services, and created an extensive online resource[101] about cannabis, including how it affects the body and brain, possible harmful effects, and additional information about the medical use program.

Finally, a portion of nonmedical adult use cannabis taxes was directed to the behavioral health and treatment community.

LESSONS LEARNED AND CONSIDERATIONS FOR OTHERS

With a decentralized regulatory structure, Illinois implemented nonmedical cannabis across 13 agencies and four deputy governors. In retrospect, Hutchinson wishes Illinois had created a single stand-alone agency on the front end, so implementation would have been less difficult to coordinate.

"I wish I really, truly understood how strong the forces of opposition could be, how much money is at stake, and why it would not be easy to do any of this," Hutchinson said.

Cassidy added, "There's a lot we don't know yet. There was language [in the bill] we thought was plain enough to us, but regulators interpret it in ways we didn't intend to. Like, I really wish I hadn't put that comma there because it takes another piece of legislation to correct that."

Although Illinois is barely one year into regulating nonmedical cannabis, Hutchinson advised that for any state contemplating a similar program, "the sweet spot is centering it. I would say that you should completely center the people that were harmed through [cannabis] prohibition in anything you do to try and change. There is literally a moral directive in doing that."

Cassidy added, "Use resources from other groups, like the National Conference of State Legislatures. Don't reinvent the wheel. We know how to make a wheel, but customize it to fit your state. People were very generous with time and experiences."

The View From Here

Growing Pains and Experiences

From the way they were initiated—whether by voters or the legislature—to the regulation of businesses, taxes and products, no two state cannabis programs are alike.

Colorado and Washington were in the unique position of building regulated markets that met the intent of voter-led initiatives, without a blueprint to follow. Illinois and Massachusetts policymakers had the advantage of learning from early-adopting states and crafting their programs through legislation, but they faced new challenges of incorporating equity and inclusion for populations most negatively affected by cannabis prohibition. Regardless of their state's timeline, all respondents reported such challenges as fine-tuning tax structures and product testing processes, solving supply chain issues, and developing public education and prevention campaigns.

Other challenges and lessons learned include:

Public health

Anticipating the appropriate public health information to track consistently before and after implementation can be difficult. Establishing surveillance helps monitor trends and issues in real time so regulators or agencies may respond. Other considerations: the cost of educating the public and visitors about cannabis consumption; the increased demand for public utilities caused by cannabis cultivation and processing; and the need for air-quality monitoring for odor, contaminants or particulates from cultivation, manufacturing and dispensaries.

Data and monitoring

Regulatory agencies and cannabis industry members often face information technology challenges ranging from limited data availability to a lack of infrastructure that can support timely and accurate data collecting and sharing. Agencies may need to track public health and safety data not previously collected, and data use agreements may need to be established to facilitate sharing between multiple agencies and, in some cases, industries to track various issues and inform policymaking.

Partner engagement and education

Whether in the form of informal public gatherings or formally established task forces or committees, including diverse voices was crucial to the process in all states. Departments of health, revenue and public safety all played key parts in early discussions. Communicating with localities, which typically have their own oversight mechanisms, was vital. Policymakers and experts consistently reported that the engagement process was important to designing programs with fewer blind spots, appropriate oversight and participant buy-in.

Consumer safety

Limited scientific research can make it difficult for regulators to guide producers about product warnings and consumer information. Some consumers may not understand that cannabis products are not developed, tested or proven safe or effective like other substances regulated by the FDA. Policymakers also noted the importance of clear labeling, safe storage and child-resistant packaging.

Business regulation

Applying for licenses and starting new businesses take time. Processing license applications requires system coordination and intensive staff review.

Economics and markets

Anticipating market needs for dispensaries and products, as well as overall demand and revenue estimates, was a challenge for regulators. State and national data can help, but until cannabis is launched in a particular state, officials will have to make calculated estimates based on available data. In some states, the unexpected price inflation of warehouse and commercial spaces where the cannabis industry could operate created concerns for other industries. While done with the best of intentions, providing a head start to companies in established medical markets to move to or include the nonmedical market may prevent newcomers from joining the industry.

Equity

Including communities and people disproportionately affected by cannabis laws early in the process of establishing a regulated market may improve access to the industry. It can be difficult to add such considerations to a mature market. Considering licensee requirements, aiding access to capital, clearing previous criminal records and providing business-development assistance are tools states have used. Addressing unequal distribution of potential economic benefits across the state and in social or economic groups may also be of interest.

Infrastructure

Statutory deadlines may limit the time officials can take to consider how broadly to set up a regulatory program. If time had allowed, some regulators would have preferred a slower rollout, adding products gradually to identify and address problems more easily. They also cited the importance of establishing testing labs and processes, and providing training for regulators and industry employees.

Learning from others

Connecting personally with regulators and legislators from other states was instrumental for policymakers. Individuals and groups toured agencies and businesses to learn about the regulatory process from conception to consumption.

Future Roles of Public Health

CDC LEADING PUBLIC HEALTH IMPLICATIONS

In response to the rapidly evolving cannabis policy landscape and the potential associations between such policies and public health, the Centers for Disease Control and Prevention established the Cannabis Strategy Unit in early 2020 to coordinate activities across the agency and with other federal agencies and organizations working on policy and health-related aspects of cannabis. The unit developed a six-pronged strategic plan and a research agenda to guide its surveillance, research and programmatic activities:

1. Monitoring trends to understand patterns in cannabis use, adverse effects and social norms at the national and state levels.
2. Advancing research to better understand the potential health benefits and harms of cannabis use, particularly among populations that may be at risk for negative effects, as well as to understand the impact of policies on cannabis use.
3. Building capacity to help states, tribes, localities and territories monitor cannabis use among their residents and keep their residents healthy.
4. Supporting health systems and providers to better understand the benefits and harms of cannabis use and keep patients safe.
5. Partnering with public safety organizations, schools and community coalitions to support strategies to protect and promote public health, especially among youth.
6. Increasing public awareness to ensure consumers have access to current, accurate and relevant information on cannabis use.

In this report and others, health experts, policymakers, regulators and public health officials cite the need for continuing research on the biological and psychosocial effects of cannabis use.[102] This research could help in establishing evidence-based rules and regulations to protect public health and safety.

The federal Schedule I status of cannabis requires approval from numerous federal agencies be obtained before tapping federal resources, including research funding or studies using federally grown cannabis. State policymakers, regulators and their advisors are left to create statutes, rules and regulations based on lessons learned from other states and the little data available. The cannabis science and policy worlds would greatly benefit from additional rigorous scientific studies and reviews of reliable and existing data to create a trusted reference library of knowledge. Currently, cannabis policies are evolving much faster than the science needed to give regulators and policymakers confidence in their decisions.

Citing the limited availability of state and national data, researchers concluded in 2020 that, "As cannabis policy changes continue, there is a need to remain focused on the availability of high-quality data sources that allow for critical public health research."[103]

Key contributors to this project requested that public health and other researchers provide information and data in these areas:

- Impaired driving and roadside detection tools or methods.
- Dosing for medical use.
- Safety of products by type and concentration.
- Contaminant testing.
- Appropriate purchase limits based on product concentration.
- Level of public understanding of products and recommended label information.
- Effective youth prevention programs.
- Patterns of nonmedical use to help determine appropriate market size/production needs.

Contributors to this project offered similar recommendations for federal and state public health and other researchers. "Open up the research!" former Sen. Hutchinson said, referring to an independent finding[104] that the majority of U.S.-funded cannabis research focuses on potential harms of the drug,[105] although a growing portion[106] is spent on finding potential medical uses.[107]

"The single most harmful thing about how legalization has gone forward, is that it's had to move before research gets there. I think that regulators had their hands tied behind their backs and really couldn't say at all what was safe and unsafe for consumers."

— Andrew Freedman, former Director of Marijuana Coordination in Colorado

Help Wanted: Timely and Reliable Data and Surveillance

Timely data collection and analysis are key to creating and adjusting effective rules, regulations and guidance.[108] Regulators, public health scientists and policymakers interviewed for this project expressed the need for reliable data to shape decisions while designing a regulatory process, over the course of a program's implementation and to ensure continued monitoring over time.

For example, Colorado's monitoring and reviewing of cannabis use data informed numerous future policy decisions, such as including serving sizes with THC content limits on labels for edible products.[109]

Finding consistent data can be difficult. To examine trends over time, data should be gathered using the same instrument or questions and the same method. However, some survey instruments, as well as the populations surveyed, may change year to year as data collection is improved, which may create challenges for comparison and monitoring over time.

Studying sales data and patterns, as well as syndromic surveillance of health effects related to cannabis use, could also aid in the improvement of cannabis-related public health policies.

Significant financial resources[110] are necessary to build surveillance systems and to support staff time for surveying, collecting and reviewing data.[111] Local, state and federal agency budgets cannot singlehandedly bear all the financial burden of establishing robust public health infrastructures. Diverse funding sources may also prop up more work and perspectives in cannabis research.

While public health researchers are commonly housed in departments of public health, some states are embedding them within regulatory agencies, according to speakers at the National Cannabis Summit in 2017[112] and 2019.[113] Locating subject-matter experts in this way could allow them to liaise with community members, other state agencies and coalitions to bring a regulatory perspective to more points in the policymaking process. Integrated data collection and analysis may also benefit policymakers in understanding trends and designing future regulations.

Conclusion:

Growing From Roots

As is clear from the remarks of current and former state officials cited in this report, states with nonmedical cannabis programs are tackling dozens of policy issues. Engaging various public and private sector interests can provide opportunities to obtain broad perspectives and address concerns about the implications of cannabis legalization. Legislators with varying perspectives on cannabis regulation have collaborated to establish systems addressing a variety of concerns and needs. In addition, involving public health agencies and experts early in the process may prevent unintended public health and public safety outcomes and allow for the tracking of outcomes to better understand the impact of policies.

Given that state-regulated cannabis programs are still relatively young, it may take more time to establish consistent data collection and analyses to answer many of the questions public health experts and policymakers have about the long-term effects of cannabis use, including potential benefits and harms. In the meantime, policymakers, health officials and regulators would benefit from solid science and evidence when making policy decisions.

> "If you think it's coming via the ballot, get out in front of it. If you're making omelets, you have to break some eggs. The politics of it cannot be overstated. … Because it was so bipartisan, lasting relationships of trust were built"
>
> *— former Washington Sen. Ann Rivers*

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