From Medical to Recreational Marijuana: Lessons for States in Transition
EXECUTIVE SUMMARY

As of October 2020, eleven states and the District of Columbia have undergone a transition from medical to adult-use marijuana regimes navigating the creation of a new industry within a complex and incongruous legal framework. The collective experience of these states has created a wealth of lessons for other states that might legalize adult-use marijuana in the future. Yet not much has been written about the process of transition and how states managed the creation and implementation of the regulatory framework for an emerging industry.

This report, which draws on interviews with current and former government officials, aims to fill this gap by documenting lessons learned and decision-making behind the policies that shaped the recreational landscape in four states: Colorado, Michigan, Nevada, and Oregon. The purpose of this research is to provide actionable and concrete advice to states that are transitioning, or are planning for a transition, from a medical marijuana regime to an adult-use or recreational framework. The report highlights major decision points states face in their transitions and the pros and cons of each choice, lessons learned gathered from the participants in our study, and a short discussion of major challenges each state had to face with their respective programs.

Decision points

State legislators and regulators face many decision points when adopting and implementing a regulated adult-use marijuana program. Understanding the pros and cons of various regulatory and organizational choices can be helpful as activists draft ballot language and states develop their regulatory structures. The list of key decision points displayed in the figure below is by no means exhaustive; state regulators have to weigh the pros and cons surrounding a myriad of small and large issues. But these seven highlighted decision points constitute some of the larger questions each state has to address when moving toward an adult-use marijuana program. There are no obvious right or wrong choices applicable to all states; each state’s considerations are different given diverse local needs and political realities.
Figure 1. Decision points

Passing reform through ballot initiative

- Gives state residents direct say over a controversial topic
- Frees regulators from political constraints of the legislative process
- Clear timetable for decision – no legislative delays and bargaining
- Opportunity to involve traditionally unrepresented stakeholders in drafting process

- Possibility of inclusion of provisions that could be harmful to public health or public safety
- Usurpation of ballot drafting by industry interests
- Adoption of unreasonable timelines resulting in rushed adoption
- Citizen-initiated laws are often more difficult to change, limiting regulators’ ability to react to changing circumstance
- Dependent on the existence of well-funded groups to drive the ballot initiative process through numerous approval stages

Centralization of regulatory powers

- An agency with singular focus on marijuana and no competing priorities
- Greater understanding of the industry and regulations by staff wholly dedicated to marijuana regulation
- Clarity among government agencies, the public, and the industry as to who is responsible for regulatory function

- Marijuana regulations span the subject matter of several agencies; centralized agency will not have all the expertise necessary
- Other agencies do not feel ownership of the issue which can make collaboration more challenging
- Possible confusion about roles and responsibilities of various agencies among government actors and the industry

Allowing vertical integration

- Allows for efficient supply chains and delivery of product
- Gives industry participants greater control over their supply chain
- Business owners have greater control over the success or failure of their businesses

- Possibility of limiting the number of people engaged in a new industry
- Larger businesses with greater capitalization could come to dominate the industry
- Could limit industry involvement of people from impacted communities

Imposing limits on the number of licenses

- Ability to charge higher licensing fees to support effective regulatory structure
- Generally, only well capitalized businesses can enter market due to high fees
- Better capitalization leads to greater stability in supply
- Ability to regulate supply of product and react to changing conditions in the market to prevent oversaturation
- Allows for preferential treatment of certain classes of applicants

- Limits how many entities can enter the industry
- Gives advantage to well capitalized individuals/business, limiting diversity in the industry
- By restricting supply, creates potential for higher prices to consumers
- Necessitates creation of government selection process which can create controversy
### Preferential treatment to established medical licensees

- Shorter implementation timeline due to already established growers and retailers
- Smoother start of adult-use regime due to greater levels of familiarity with marijuana regulations and established record of compliance
- Increases perceived legitimacy of the new industry as existing medical participants have already undergone public scrutiny

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<td>- Limits the ability of new entrepreneurs to get involved in the industry, possibly limiting involvement of underrepresented communities</td>
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<td>- Possibility of greater concentration of the industry in fewer hands, limiting competitiveness of the market</td>
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### Residency requirements for licensees

- Limits the ability of out-of-state investors to enter the market
- Protects existing small businesses from capture by large players
- Provides opportunity for state residents
- Eliminates a potential red flag that could trigger federal enforcement action

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### Allowing home cultivation

- Enables patients to grow their own supply to avoid the uninsurable cost of marijuana
- Consumers can grow specific strains that might otherwise be hard to find in dispensaries
- Potentially creates downward pressure on pricing in the market

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Lessons for success

The twelve former and current government officials interviewed as part of this project represent states with distinct structures and regulations which transitioned from medical to adult-use marijuana regimes at different times. Yet, when sharing their lessons learned, there was considerable agreement on what steps government regulators can take to ensure a smooth transition and long-term success—and the universal lesson was to be sure to learn from other states' experiences. While the six elements listed below are not exhaustive, they represent the most frequently mentioned ingredients necessary for success.

1. Cultivate ongoing stakeholder engagement

As with any other policy arena, cultivating ongoing stakeholder engagement is key to developing effective policies and regulations. Interviewees emphasized the need for involving stakeholders from the government, the public, and the industry, and making sure that the feedback is iterative given the novelty of the marijuana policy arena. Stakeholders should be engaged in every stage of the process from inception of regulation, to implementation and assessment.

2. Ensure interagency coordination

Whether states designate a specialized agency whose sole responsibility revolves around marijuana regulation or choose a decentralized regulatory regime, the need for effective interagency coordination is essential. The nature of marijuana products and laws requires expertise housed in different government agencies, including but not limited to public health, public safety, taxation, agriculture, and environment. Getting buy-in from all the necessary agencies is often helped by strong support from the governor as well as a clear understanding of roles and responsibilities and the benefits of collaboration.

3. Align adult-use regulations with medical marijuana regime and applicable federal rules

To date, all states that have legalized adult-use marijuana have done so after already having a medical marijuana regime in place. According to several interviewees, creating a medical marijuana regime with an eye toward eventual adult-use legalization or using existing regulations for medical marijuana as a template for adult-use programs can make a future transition faster and easier to manage. The interviewees also recommended aligning regulations with applicable federal rules as much as possible. While at this moment the federal government does not engage in setting standards for the marijuana industry, businesses in states that have attempted to comply with applicable federal standards concerning packaging, testing, and other elements will be better positioned to succeed in an open market environment if marijuana is eventually legalized at the federal level.

4. Plan for more than you think you need

Building a regulatory structure for a brand-new industry is a complex process requiring significant resources. There are three categories of resources: funding, staff, and time. In general, interviewees recommended overestimating the needed time and resources, as the process often takes longer and costs more than expected. Set up a reliable and sufficient funding structure for the regulatory system to ensure effective enforcement and administration.

5. Provide support to local governments

To date, all states that have legalized adult-use marijuana have given local governments broad powers to limit or completely ban some or all aspects of the industry from operating within their jurisdictions. This has resulted in large urban areas generally embracing the nascent industry while smaller, rural localities are opting out of the industry altogether. To address this discrepancy, interviewees recommended providing local governments with support in the form of “toolkits” encompassing sample ordinances, research on the potential impact on local governments’ revenue streams and costs, and advice on complicated issues such as zoning and taxes.

6. Start strict and loosen up later

State marijuana regulatory structures serve two overarching goals: protecting public health and safety while at the same time creating a viable industry that can undermine, and eventually eliminate, the unregulated illicit market. Striking the right balance between these goals can be especially difficult when the long-term consequences of the various policy choices are not yet known given the recency of the industry. When asked about this balance, several interviewees stated that their advice would be to start strict, conduct ongoing reviews of how well existing regulations are working, and loosen up later as needed. This advice was specifically mentioned in relation to regulations surrounding marijuana edibles, product testing, and home grow.
Challenges

In addition to seeking advice for government actors who might be charged with managing the transition from medical to recreational marijuana, we also asked which issues were most challenging to manage. The answers differed from state to state, but the following four topics stood out as frequently mentioned challenges.

1. **Social equity and revenue allocation**

   Tax revenue allocation has become ever more challenging with reform advocates’ recent emphasis on social equity and addressing the past harms of marijuana prohibition. The interviewees had several suggestions concerning revenue allocation and incorporating social equity efforts: allocating tax revenue to specific causes makes marijuana’s contribution more visible to the public; allocating revenue to smaller, manageable expenditures might have more impact on public good than contributing a small portion to large budget items such as education or infrastructure; revenue for social equity efforts should be allocated from the outset because altering existing allocation formulas is difficult; and social equity efforts should look beyond facilitating involvement of targeted communities in the marijuana industry to generating a more meaningful impact on those communities.

2. **Illicit market and organized crime**

   The issue of preventing diversion, eliminating the illicit market, and ensuring that criminal enterprises do not get involved in the nascent industry was one of the top priorities for all states creating legal marijuana markets and also one of their top challenges. While complete elimination of the illicit marijuana market might not be possible, two strategies were mentioned by the interviewees for combating the illicit market: ensuring transparent systems so organized crime cannot readily hide behind complex and opaque business structures, and limiting the amount of plant materials produced in a state through controls on the regulated market and home grow.

3. **Overconsumption**

   There are no nationwide data on medical marijuana users, but studies in individual states indicate that the average age is over 40 as older people are more likely to suffer from a qualifying condition. Because typical recreational users tend to be younger and are not using for medical reasons, there can be a risk of problems arising from first-time experiences with using manufactured marijuana products and with chronic heavy use. States recommended instituting clear rules about serving sizes and making it easy for users to understand and control the quantity of THC they consume.

4. **Managing home grow**

   The challenges associated with monitoring and managing home grow are addressed throughout several sections of the report. Home grow authority is often part of citizen-driven ballot initiatives which can prevent legislators and regulators from banning home grow even if they are inclined to do so. Regulators stressed that effectively managing home grow is necessary for public safety and for limiting the possibility of diversion to the illicit market. There were two elements mentioned by interviewees when discussing how to best limit any negative effects of home grow provisions: giving law enforcement agencies clear and enforceable directions and keeping the allowed number of plants relatively low.
INTRODUCTION

When Colorado and Washington became the first two states to legalize adult-use marijuana in 2012, they entered an uncharted territory. Other than the lessons learned from each state’s medical program, state officials and policymakers were operating in an entirely new landscape, regulating the production and sale of a drug surrounded by a complex and incongruous legal framework. Since then, nine additional states and the District of Columbia have legalized adult-use marijuana, often looking to Colorado and other early adopters for assistance and advice on developing their initial policy frameworks, while tailoring their programs to meet the needs of their own citizenry and fit the political realities of their state. The collective experience of these eleven states has created a wealth of lessons for states that might legalize adult-use marijuana in the future. Yet not much has been written about the process of transition and how states managed the development of a new regulatory framework for a brand new industry.

This report aims to fill this gap by documenting lessons learned and decision-making behind the policies that shaped the recreational landscape in four states: Colorado, Michigan, Nevada, and Oregon. The purpose of this research is to provide actionable and concrete advice to states that are transitioning, or are planning for a transition, from a medical marijuana regime to an adult-use or recreational framework. The report highlights major decision points states face in their transitions and the pros and cons of each choice, lessons learned gathered from the participants in our study, and a short discussion of the main challenges each state has had to face with their respective programs.

BACKGROUND

A. Project background and methodology

The first phase of the project began in May 2019 with a comprehensive overview of all states that have undergone, or were actively undergoing, a transition from a medical to an adult-use marijuana regime. Detailed profiles of each state’s regulatory structures were created and supplemented with a timeline of marijuana policy developments. Based on the state profiles, Colorado, Oregon, Nevada, and Michigan were selected for interviews using the following criteria: they represent different time periods of state transitions, they utilize different governance structures for their adult-use programs, and they represent different geographical regions.

In the second phase of the project we identified current and former government officials who played an active role in managing each state’s transition process and sent them invitations to participate in semi-structured interviews regarding their state’s experience. The interview protocols were structured around six areas of interest – the state’s governance and regulatory framework; medical marijuana program functionality after adult-use legalization; licensing; degree of local control; public health and safety concerns; and general lessons based on successes and challenges. From February to April 2020, a total of eight interviews with twelve interviewees were conducted via telephone, with four former or current government officials from the state of Colorado, three each from Oregon and Nevada, and two from the state of Michigan. All participants were promised anonymity to facilitate frank discussion about their state’s experiences. Interviewees who are identified throughout the report have given explicit permission for their names and titles to be used. The interviews lasted approximately 45-75 minutes and were recorded for notetaking purposes. After all interviews were completed, interview transcripts were examined to derive lessons learned, identify challenging issues, and gather advice regarding the transition from a medical to an adult-use marijuana regime.
B. State backgrounds

When medical marijuana was approved in California in 1996, Proposition 215 had only two sections that provided simple language describing legal protections for patients and physicians, and exempted patients and caregivers from criminal penalties for cultivating marijuana as long as it was done for personal, medically-authorized use. Since then, California developed a comprehensive legal and regulatory system for marijuana, spanning over 23 different chapters within the California Code reflecting the increasingly complex nature of regulations surrounding the creation of a new industry. And California is hardly the exception. Many states, especially states on the early side of the legalization wave, began with relatively modest policies and regulations, building more comprehensive systems as they moved toward providing patients and consumers with an opportunity to purchase products from state-licensed providers.

To date, eleven of the 33 states that have legalized medical marijuana have taken the next step of legalizing cannabis for adult-use. When undergoing the transition, states look not only to other states for guidance but also to their existing medical program as an established policy framework that can be expanded and developed to fit their state’s vision for an adult-use marijuana regime. While each state’s program is different based on its context and political realities, the structural outcome is comparable across states. In the paragraphs below and in the summary table, we offer short overviews of the policy and regulatory developments of the four participating states. Detailed descriptions of each state’s historical evolution and regulatory structures along with comprehensive citations are included in the Appendix.

Colorado

In 2000, Colorado voters approved Amendment 20 as a constitutional amendment legalizing the use of marijuana for medical purposes and granting oversight to the Colorado Department of Public Health and Environment. Patients were allowed to obtain two ounces of usable marijuana by either cultivating their own plants at home or selecting a caregiver to provide the supply entirely. Until 2009, the Colorado medical marijuana community remained fairly small at about 5000 patients and less than two dozen dispensaries. But rapid growth followed the Obama administration’s issuance of a policy memorandum deprioritizing prosecution of state-compliant marijuana activity and the Colorado Board of Health’s decision not to limit how many patients medical marijuana dispensaries could serve. Legislators seeking some control over a growing industry operating unregulated dispensaries, enacted HB 10-1284 to establish a medical marijuana code and regulatory system governing all medical marijuana establishments.

In 2012, just two years after the Colorado legislature approved HB 10-1284, Colorado voters approved a constitutional amendment, Amendment 64, legalizing adult-use marijuana in their state. After the amendment’s passage, the Governor convened a task force whose goal was to come up with recommendations for the Colorado legislature on how to implement the country’s first regulated adult-use marijuana program. Under the resulting law and regulations, oversight was granted to the Department of Revenue but slowly shifted solely to the Marijuana Enforcement Division.

Amendment 64 allowed individuals 21 and older to obtain up to one ounce of marijuana and grow six marijuana plants per resident. The adult-use retail market began in January 2014 and by the end of the first year the program generated $700 million in revenue. In fiscal year 2019, Colorado’s adult-use program recorded over $1.7 billion in sales. As of September 2020, Colorado had 590 adult-use and 433 medical marijuana dispensaries, which translates approximately into 10.3 adult-use and 7.5 medical dispensaries per 100,000 people.
Michigan

Michigan’s entrance into the regulated marijuana environment is relatively recent compared to other states discussed throughout this report. Voters approved Proposal 1 as an initiated state statute with overwhelming support in 2008, creating the Michigan Medical Marihuana Act (MMMA) and enabling patients and caregivers to cultivate marijuana for medical reasons. However, Proposal 1 failed to establish a retail market for patients, leading to the growth of an unregulated network of caregiver clubs, which were later challenged in the Michigan Supreme Court. In 2013, the court ruled that the MMMA did not authorize these clubs, ending patient-to-patient sales, and shutting down all operating facilities. Michigan’s legal medical marijuana supply was constrained until the state legislature approved the Medical Marihuana Facilities Licensing Act (Act 281 of 2016). Under the act, state officials began implementing a regulatory framework for medical marijuana retail establishments and created the Medical Marihuana Licensing Board.

In 2018, Michigan voters approved that year’s Proposal 1, which legalized adult-use marijuana. The Michigan Regulation and Taxation of Marihuana Act created the regulatory structure for licensed adult-use establishments and shifted the responsibilities for the medical program into the Bureau of Marijuana Regulation, which would eventually become the current oversight entity, the Marijuana Regulatory Agency (MRA). For the first two years and for the majority of license types, only entities already licensed within the medical program could apply for adult-use licenses. MRA began accepting adult-use license applications in November 2019, and one month later adult-use establishments began selling to consumers. As of June 2020, Michigan’s adult-use program is officially operating under the permanent administrative rules.

Michigan became the first state to enact full adult-use legalization in the Midwest. Although Michigan’s adult-use market is in its early phases, the state has generated $37.84 million in average monthly sales as of September 2020, and experts predict the market to expand to over $1.5 billion by the year 2023. As of September 2020, Michigan had 179 adult-use and 291 medical retailers in operation, which translates approximately into 1.8 adult-use and 2.9 medical dispensaries per 100,000 residents.

Nevada

Similar to other states, Nevada operated a medical marijuana program for multiple years before legalizing adult-use marijuana consumption. In 2000, Nevada voters passed Question 9 as a constitutional amendment. After Nevada voters approved Question 9, the legislature enacted AB 453 in 2001 to clarify criminal protections and create the statewide medical marijuana patient registry, but this law failed to establish a regulatory structure for medical marijuana establishments. In 2013 the legislature approved SB 374, effectively authorizing a legal framework for licensed medical establishments. SB 374 became operational in July 2015; until then, patients had to rely on home cultivation or a registered caregiver.
In 2016, the voters approved Question 2, legalizing adult-use marijuana statewide. In less than one year following Question 2’s passage, Nevada residents and visitors began purchasing adult-use marijuana from medical marijuana establishments. For the first 18 months of the program, only medical marijuana establishments were authorized to apply for adult-use licenses. After a couple of years and several implementation issues, adult-use licenses became more broadly available and additional stores officially began selling to adult-use consumers in late 2018. Oversight was initially granted to Nevada’s Department of Taxation but has since shifted to the Cannabis Compliance Board.

In fiscal year 2019, Nevada recorded $692 million in marijuana sales. Most dispensaries have been confined to urban areas, and less than half of the counties in Nevada have operating adult-use retail establishments. As of August 2020, there were 71 adult-use and 66 medical marijuana dispensaries, which translates to approximately 2.3 adult-use and 2.1 medical dispensaries per 100,000 residents.

Oregon

Oregon has had a long history of marijuana reform. In 1973, Oregon became the first state to decriminalize marijuana by allowing residents to possess up to one ounce of marijuana without criminal liabilities. In 1986, Oregon citizens rejected an initiative seeking to legalize adult-use consumption, but in 1998 voters approved the Oregon Medical Marijuana Act, which legalized medical marijuana for qualifying patients. However, that initiative failed to establish a regulated marketplace and patients were left to rely on home cultivation or designated growers. Oregonians failed to approve medical marijuana retail through multiple ballot measures in 2004 and 2010, as well as full legalization measure in 2012. Retail medical marijuana operations began in Oregon in 2013 after the state legislature approved HB 3460, which established a regulated retail market for medical marijuana and created the dispensary registry system.

One year after the legislature approved the medical registry system, Oregon voters approved Measure 91 and legalized adult-use through an initiated state statute. After Measure 91 was approved in 2014, adult-use retail was authorized to begin in 2015 and medical establishments were the first entities to sell to adult-use consumers. Licensed adult-use retail establishments did not begin operating until late 2016. Under the regulatory oversight of the Oregon Liquor Control Commission (OLCC), the medical and adult-use programs have been frequently altered since Measure 91 was approved by voters. Officials approved laws to increase the supply medical marijuana establishments could transfer to the adult-use market, while also increasing the number of patients a caregiver could supply. On the adult-use side, OLCC and the state legislature have created laws to protect financial institutions providing services to cannabis establishments. Within the same bill that increased cardholder limits for caregivers, Oregon established the Illegal Marijuana Market Enforcement Grant Program to assist local law enforcement with preventing diversion and illegal operations.

Oregon’s regulations are relatively less restrictive when compared to other states, which has resulted in what is widely considered to be a considerable oversupply of marijuana production. As a result, the state legislature approved SB 218, which instituted a moratorium on issuing additional grower licenses. The provision is scheduled to sunset in January 2022. Over the years, demand for retail marijuana has steadily increased, with the state reporting $725.8 million of sales in the 2019 fiscal year. Oregon has 668 adult-use and 3 medical marijuana dispensaries in operation, which translates approximately into 15.8 dispensaries per 100,000 residents.
Figure 2. Timeline of transition from a medical marijuana regime to an adult-use or recreational use framework

**Colorado**
- **1998**: Medical marijuana legalized without retail
- **2000**: Medical marijuana code enacted to license and regulate dispensaries
- **2010**: Adult-use marijuana
  - **September**: HB 13-1317 approved, permanent adult use retail rules go into effect
  - **October**: State begins accepting adult-use licenses
- **2013**: Adult-use retail begins

**Michigan**
- **2008**: Medical marijuana legalized without retail
- **2010**: Medical marijuana dispensaries can sell to adult-use consumers

**Nevada**
- **2012**: Medical marijuana legalized without retail
- **2013**: Medical marijuana dispensary regulations
  - **June**: SB 374 approved legalizing medical marijuana dispensaries
  - **August**: State begins accepting medical marijuana applications
- **2013**: First medical marijuana dispensary opens
  - **November**: State notifies approved medical marijuana applicants
  - **October**: Measure 91 approved legalizing adult-use

**Oregon**
- **2014**: Medical marijuana legalized without retail
  - **August**: HB 3460 approved legalizing medical marijuana dispensary registry system
  - **January**: HB 3460 rules go into effect
  - **March**: State must have process established for dispensary applications
  - **November**: Measur 91 approved legalizing adult-use
  - **October**: Medical marijuana dispensaries can sell to adult-use consumers
**2016**
- December: State legalizes medical marijuana facilities

**2017**
- January: State begins accepting applications for adult-use establishments
- June: State adopts permanent adult-use marijuana rules
- October: Adult-use retailers enter market
- December: Medical marijuana dispensaries no longer able to sell in adult-use market

**2018**
- February: Adult-use regulations go into effect
- November: Adult-use licensees enter market

**2019**
- July: Adult-use retail begins; medical marijuana dispensaries can sell to adult-use consumers

**2020**
- June: Permanent rules for both medical and adult-use operations
FINDINGS

The state interviews yielded a wealth of information as government officials reflected on their experience with managing their states’ transition from a medical to a recreational marijuana market and the regulatory and organizational decisions they faced throughout the process. We have divided the insights collected into three categories: decision points, which illustrate some of the pros and cons of different regulatory and organizational options; lessons for success, which detail the most often mentioned elements needed for success; and challenges, which focus on some of the difficulties encountered by the various states.

A. Decision points

State legislators and regulators face many decisions in the adoption and implementation of a regulated adult-use marijuana program. Some decisions are made by the voters at the ballot box, limiting regulators’ choices. Understanding some of the pros and cons of the various regulatory and organizational choices can be helpful as activists draft ballot language and states develop their regulatory structures. We discuss the following decision points: utilization of the legislative process versus a voter-driven process, centralization of regulatory structures, allowance of vertical integration, imposition of license caps, preferential treatment for medical licensees, imposition of residency requirements on licensees, and allowance of home cultivation. This list of decision points is by no means exhaustive; state regulators have to weigh the pros and cons of a myriad of small and large decisions. But the seven decision points highlighted below constitute some larger choices each state has to make as they move toward an adult-use marijuana program. There are no obvious right or wrong choices for a given state, as each state’s needs and considerations are different, but there are common pros and cons as states consider the different options.

1. Ballot vs. legislation

To date, only two states, Illinois and Vermont, have enacted an adult-use marijuana regime via the traditional legislative process. The other nine states were obliged to do so by voters who legalized adult-use marijuana at the ballot box. As states look forward to the future of legalization and as advocates for reform continue to be eager to put this issue directly before voters, both government officials and reform advocates should consider some of the drawbacks and benefits of adult-use marijuana regimes being developed by ballot drafters as opposed to an elected legislative body.

**Pros**

The main benefit of passing adult-use via a ballot initiative is that the ballot process allows citizens and other stakeholders to have more direct say in whether recreational use of marijuana is approved and how it is structured. While ballot initiatives are not inherently more inclusive than the legislative process, given the effort and resources necessary to get an initiative on the ballot, they are often crafted by a coalition of stakeholders. In most states where marijuana for medical or adult-use was legalized via a ballot, home grow was included as one of the requirements of such a program because of its importance to many advocacy groups. (Industry representatives and law enforcement are typically against home grow, and their interests tend to have more impact when states legalized marijuana via the traditional legislative process.) Compared to the legislative process, which can move in fits and starts and be delayed by a number of issues, ballot initiatives can often deliver faster results. Using the ballot initiative also minimizes the risk that politicization of the broader marijuana reform issue will get in the way of developing sound regulatory rules. As one interviewee stated, “The politicization of the issue, rather than the implementation, is one of the biggest drawbacks of a legislative process. We got to focus on implementation [after voters approved an initiative] and did not have to worry about the politics of it, which really helped.” By taking the issue out of the hands of legislators, ballot initiatives allow regulators to focus strictly on building the best possible programs under the given constraints, instead of focusing on enacting provisions (or seeking statutory changes) that would carry political favor but might not be the best decision for the system as a whole.
Cons

By their very nature, ballot initiatives are generally initiated by non-government actors, which can result in inclusion of provisions that could be harmful to public health or public safety or have other unforeseen consequences. While ballot initiatives are often viewed as giving citizens greater voice, they can also be used by industry actors to pursue private benefits instead of the public good as was the case in the 2015 Ohio legalization effort. Additionally, because initiative drafters generally do not consult with state regulators, they might set unreasonable implementation timelines that can result in a rushed regulatory environment. And if a ballot initiative is passed as a constitutional amendment, future changes become very difficult to implement. As stated by Andrew Freedman, former director of the Office of Marijuana Coordination for Colorado, “On balance, ultimately despite the challenge of passing it through the legislature, you will get a better regulatory structure passed through the legislature, especially as compared to constitutional amendments. Those are probably the worst of them. There are a lot of implementation issues that do not get thought through when it is passed through a voter initiative.”

“On balance, despite the challenge of passing it through the legislature, you will get a better regulatory structure passed through the legislature. There are a lot of implementation issues that do not get thought through when it is passed through a voter initiative.”

—Andrew Freedman, former director, Office of Marijuana Coordination, State of Colorado

Table 1. Vehicle for legalization of adult-use marijuana

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</tr>
</tbody>
</table>

2. Centralization vs. decentralization across multiple departments

Setting up a regulatory structure for a new industry is always difficult, especially when various aspects of the new industry fall under the traditional purview of different departments. In the case of the marijuana industry, states not only have to regulate the licensing process but also have to create and enforce regulations related to how to grow a plant so it is safe to consume, how to regulate marketing so marijuana products are not marketed to youth, how to regulate banking and other financial services when the product remains federally illegal, and many others. Some states have set up centralized regulatory bodies responsible for all aspects of the marijuana industry, while others involve more than one agency in the regulatory process. As with all decision points, each arrangement has its pros and cons.

Pros

The main benefit of centralizing marijuana regulation is that one agency has the authority to create all regulations and manage the establishment of a new industry. According to Andrew Brisbo, the executive director of Michigan’s Marijuana Regulatory Agency, “It has allowed our agency to have a singular focus on this nascent industry and some of the unique challenges and opportunities we faced dealing with the cannabis industry in an ever-evolving environment. It has allowed us to be as efficient as possible in respect to the day-to-day regulatory function that we perform.” A centralized entity can dedicate all its resources to implementing and overseeing the industry and be nimbler and
more decisive when a need for a regulatory change arises. It also allows its employees to develop specialization that in turn creates legitimacy in the decision making of the given agency. An additional benefit of a centralized system is that there is no confusion among industry players, government actors, or the general public as to who is responsible for what regulatory function. As another interviewee stated, “In my opinion, having two or three departments sharing the regulatory burden is a recipe for a disaster. Having one department leading the charge and the executive telling the other agencies that they will have to partner with them is key. Having multiple departments involved becomes too confusing for the industry and for the regulator.”

“Having multiple departments involved becomes too confusing for the industry and for the regulator.”

—Shelly Edgerton, former director, Department of Licensing and Regulatory Affairs, State of Michigan

Cons

There are, however, downsides to centralization as well. As mentioned above, the marijuana industry requires complex regulations that span the subject matter of a number of agencies such as public health, public safety, agriculture, environment, finance, and others. A marijuana-specific agency may lack the expertise needed to create effective regulations covering all aspects of the industry. According to an interviewee from the state of Michigan, “Having a centralized system puts a lot of pressure on the department to establish partnerships with other agencies whose expertise is helpful and needed. In our state we had to establish strong partnerships with other agencies to understand their perspective and leverage their expertise. And sometimes that can be hard when you are dealing with an issue like cannabis that a lot of agencies do not want to take on because they do not have the funding or dedicated resources to do so and because cannabis is still illegal federally so if the agency has any type of touchpoint with the federal government that can make it difficult.” Having a centralized regulatory structure does not eliminate the need for effective cross-agency collaboration; rather, it changes the dynamic for how such collaboration is achieved and may often require support from the governor or other official who can help ensure effective collaboration.

Table 2. Regulatory centralization

<table>
<thead>
<tr>
<th>State</th>
<th>Type of regulatory centralization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decentralized</td>
<td></td>
</tr>
<tr>
<td>California&lt;sup&gt;21&lt;/sup&gt;</td>
<td>Bureau of Cannabis Control, CalCannabis Cultivation Licensing, Manufactured Cannabis Safety Branch</td>
</tr>
<tr>
<td>Illinois&lt;sup&gt;22&lt;/sup&gt;</td>
<td>Department of Revenue, Department of Agriculture, Department Financial and Professional Regulation, Illinois State Police, Department of Public Health, Department of Commerce and Economic Opportunity, Department of Human Services, Illinois Criminal Justice Information Authority</td>
</tr>
<tr>
<td>Oregon&lt;sup&gt;23&lt;/sup&gt;</td>
<td>Oregon Liquor Control Commission is main oversight entity, other departments assist with taxes and testing/labs/research</td>
</tr>
</tbody>
</table>
3. Vertical integration

Vertical integration refers to the ability of one business entity to own various pieces of the cannabis production chain, from growing the plant, to producing manufactured products, to owning retail locations to sell the given products. Prohibition of vertical integration is well-established in the alcohol industry, which is often seen as a source of regulatory language for the cannabis industry given the similar nature of their products. Yet, all but two of the eleven states with legalized recreational marijuana permit vertical integration across the cannabis supply chain.

Pros

The benefit of vertical integration is that it allows efficient delivery of marijuana products to consumers and can do so at potentially lower prices as businesses can take advantage of economies of scale. Furthermore, businesses with an integrated supply chain can better control the quality of the end product, instead of relying on others to deliver a high-quality ingredient or product to them. Greater control over the supply chain allows businesses to have greater control over their ultimate success or failure, making the industry potentially more resilient.

Cons

Similarly to capping licenses, allowing vertical integration limits the number of people who can get involved in the industry and thrive. As one interviewee from Colorado stated: “In respect to vertical integration, we were very much of the opinion ‘let the market dictate’, let the locals decide what they want the industry to look like at the local level. We want to do criminal background checks on everyone affiliated, we want to track every plant from seed to sale, we want to be able to track every dollar and where it came from, and that is it. We do not want to do any social engineering and dictate what the industry should look like.” Under vertical integration, larger businesses with greater capitalization could end up dominating the industry in a given state, which has been a source of discomfort for activists arguing for greater levels of social equity and inclusion of people who have been adversely impacted by prior prohibition. Additionally, as the country has experienced with the alcohol industry prior to prohibition, concentration of power in the hands of a few large businesses could have a negative impact on public health.
Table 3. Vertical integration

<table>
<thead>
<tr>
<th>State</th>
<th>Approach to vertical integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>Allows for vertical integration.</td>
</tr>
<tr>
<td>California</td>
<td>Allows vertical integration across all license types except testing.</td>
</tr>
<tr>
<td>Colorado</td>
<td>Originally required integration under medical marijuana program. The requirement was eliminated in July 2019.</td>
</tr>
<tr>
<td>Illinois</td>
<td>Allows vertical integration but limits amount of product a dispensary can obtain from one grower to 40%.</td>
</tr>
<tr>
<td>Maine</td>
<td>Allows for vertical integration.</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Requires vertical integration on the medical side, but not on the adult-use side. Considering removing vertical integration requirement for medical marijuana businesses.</td>
</tr>
<tr>
<td>Michigan</td>
<td>An entity that holds a license as a marijuana safety compliance facility or a marijuana secure transporter cannot hold an ownership interest in a marijuana grower, a marijuana processor, a marijuana retailer, or a marijuana microbusiness. A microbusiness licensee also cannot hold an ownership interest in a marijuana grower, a marijuana processor, or a marijuana retailer. However, a marijuana microbusiness license holder can grow, process, and sell their own product.</td>
</tr>
<tr>
<td>Nevada</td>
<td>Allows for vertical integration.</td>
</tr>
<tr>
<td>Oregon</td>
<td>Allows for vertical integration.</td>
</tr>
<tr>
<td>Vermont</td>
<td>Allows for vertical integration.</td>
</tr>
<tr>
<td>Washington</td>
<td>Businesses holding retail licenses cannot be involved in other parts of the supply chain, although producer and processor licenses can be held in combination.</td>
</tr>
</tbody>
</table>

4. License caps vs. unlimited licenses

As states moved from simply legalizing the use of marijuana to creating a regulated market system, they had to grapple with what limits they should impose on the number of actors who can legally participate in the new industry. As shown in Table 4 below, some states adopted licensing limits across several types of licenses, some limited only certain categories, and some chose not to impose any state-wide limits. Our interviewees noted benefits as well as drawbacks when it comes to limiting the number of licenses.

**Pros**

There are several benefits to limiting the number of licenses in the adult-use marijuana industry. Capping the number of licenses at the state level necessities the creation of a competitive licensing system, in which individual businesses must compete for licenses if the number of applications exceeds the number of available licenses. By creating a competitive system, the state can ensure that businesses with the necessary capital and experience have a better chance of obtaining a license, thus creating a more stable industry. Additionally, by limiting the number of licenses in the state and creating a selection process, the state can support the participation of traditionally unrepresented communities, as well as communities disproportionately harmed by marijuana prohibition, through license-based social equity programs designed to foster such participation. A limited number of licenses also allows the state to charge higher licensing fees, which can help fund and ensure a more fiscally stable regulatory agency.
The most frequently stated argument for limiting the number of licenses, especially on the grower side, is that the state is better positioned to ensure a predictable supply of plant material and to prevent an oversaturated market with problematically low prices and incentives for diversion into the illicit market or to other states. Andre Ourso, former manager of the Oregon Medical Marijuana Program, expressed concern about the impact of a closed environment: “Creating an open free market system when you are in a closed environment where you cannot legally send your surplus to other states is something that needs to be considered carefully. The idea that you have a free market and you let the competition sort out the winners and losers is a great idea if the larger system is open, but we are playing with a closed system where interstate commerce is not a possibility.” Restricting the number of licenses gives states the ability to react to a changing market environment by either allowing additional licenses or decreasing the number of licenses in circulation.

**Cons**

By capping the number of licenses available, the state not only limits the number of businesses entering the market, but also often indirectly advantages experienced and high-capital applicants and may thereby limit the diversity in the state industry from the very beginning. Limiting the number of dispensaries could also lead to elevated prices within licensed dispensaries due to lack of competition, and customers, finding dispensaries to be too costly or inconvenient, might seek their supply from other sources. Additionally, one interviewee advised that if a state decides to cap the number of licenses, the licensing processes presents the potential for controversies. “Do really good research on the different licensing processes that states have used and try to determine the best way to do that because there is a lot of controversy surrounding this process, especially for licenses that are competitive. My suggestion is do a lot of homework on how to best set up the selection process from the very beginning. Reach out to as many states as you can and get their successes and failures and learn from that.”

The interviewees from the states that have decided not to adopt a cap on licenses often spoke to the desire to establish a free capitalist market. As one interviewee from Michigan stated “I think the sentiment in the state legislature was to establish a free market. Let people succeed or fail on their own, and so the decision was made not to have caps.”

“Do really good research on the different licensing processes that states have used and try to determine the best way to do that because there is a lot of controversy surrounding this process, especially for licenses that are competitive.”

—Interviewee

<table>
<thead>
<tr>
<th>State</th>
<th>Year Set</th>
<th>License Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>2014</td>
<td>None</td>
</tr>
<tr>
<td>California</td>
<td>2016</td>
<td>None</td>
</tr>
<tr>
<td>Colorado</td>
<td>2012</td>
<td>None</td>
</tr>
<tr>
<td>Illinois</td>
<td>2018</td>
<td>30 Cultivation Centers (Sec. 20-5.) 40 Craft Growers in 2020 and 60 additional licenses added by December 2021 (Sec. 30-5.) 40 Infusers (Sec. 35-5.) 75 Dispensing Organizations (Sec. 15-25.)</td>
</tr>
<tr>
<td>Maine</td>
<td>2016</td>
<td>State may not limit retailers but can limit the number on retail marijuana cultivation licenses.</td>
</tr>
<tr>
<td>State</td>
<td>Year Set</td>
<td>License Limits</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>2016</td>
<td>Individuals/entities are limited to three licenses per category: marijuana retailer, medical marijuana treatment center, marijuana product manufacturer, and marijuana cultivators. Craft Marijuana Cooperatives are limited to one license.</td>
</tr>
<tr>
<td>Michigan</td>
<td>2018</td>
<td>The State of Michigan does not restrict the number of licenses, but cities and towns can regulate, ban, or limit the number of marijuana businesses in their community.</td>
</tr>
<tr>
<td>Nevada</td>
<td>2016</td>
<td>Licenses capped based on county size. Counties with a 100,000+ population limit one adult-use license per entity/group/person, or up to 10% of allocable licenses in the county.</td>
</tr>
<tr>
<td>Oregon</td>
<td>2014</td>
<td>Technically none at the state level, but no longer issuing cultivation licenses until further notice.</td>
</tr>
<tr>
<td>Vermont</td>
<td>2018</td>
<td>Vermont currently does not have an adult-use market. A retail market was approved in October 2020, with an expected opening of retail in 2022.</td>
</tr>
<tr>
<td>Washington</td>
<td>2012</td>
<td>The state of Washington limits the number of retail store by county. The state is currently not accepting new applications for retail, processor or producer licenses. HB 2870, passed in March 2020, mandates that any cancelled/expired licenses will be given to social equity applicants.</td>
</tr>
</tbody>
</table>

5. Giving preferential treatment to established medical licensees

To date, all states that have legalized adult-use marijuana have first established medical marijuana regimes with functioning markets. Many of them also chose to give preferential treatment to their medical marijuana licensees when it came to obtaining first licenses in the adult-use marketplace. Colorado and Washington pioneered this approach through their successful ballot initiatives in 2012, after some medical marijuana operators in California had actively campaigned against a legalization ballot initiative in that state back in 2010.

**Pros**

The main benefit of giving preferential treatment to established medical marijuana licensees is the shortened implementation timeline of the adult-use regime. According to Ms. Edgerton from the state of Michigan, “In our state, the preferential treatment was part of the ballot initiative, and I am sure part of the reason was that the drafters thought that it would be easier to jump start the adult-use system if we utilized existing medical marijuana licensees.” Medical licensees already have established operations and thus are able to supply marijuana product to the market without delay. By giving first adult-use licenses to operating medical marijuana businesses, the states ensure that the first adult-use licensees are already familiar with the regulatory burden surrounding cannabis, that they have the necessary capital to operate a viable business, that they have followed existing regulations in respect to quality and safety, and that they have already been vetted when applying for a medical marijuana license. It also increases a perceived legitimacy of the new industry as existing medical marijuana establishments have already undergone public scrutiny and their presence has been accepted in their local communities.

**Cons**

In a competitive system where there is only a limited number of licenses, preferential treatment restricts the ability of new businesses to participate in the adult-use industry. Even in states that do not limit the number of licenses, preferential treatment allows already existing businesses to grab a larger share of the market by simply being first among others. This first-mover advantage can have a negative impact on the pricing of products, particularly at the outset of market operations, and it also has the potential to centralize power in the hands of a few industry players.
Table 5. Preferential treatment of established medical licensees

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment of existing medical licensees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>None</td>
</tr>
<tr>
<td>California</td>
<td>None</td>
</tr>
<tr>
<td>Colorado</td>
<td>Only medical establishments with &quot;good standing&quot; could apply for adult-use licenses in the beginning months of adult use.</td>
</tr>
<tr>
<td>Illinois</td>
<td>Early approval adult-use license process implemented for medical cannabis license holders. Effective for 60 days after the Act.</td>
</tr>
<tr>
<td>Maine</td>
<td>None</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Medical Marijuana Treatment Centers and Certified Economic Empowerment recipients are required by state law to be reviewed ahead of the general licensing queue.</td>
</tr>
<tr>
<td>Michigan</td>
<td>For the first two years, only existing medical licensee can apply and be eligible for most types of the adult-use licenses.</td>
</tr>
<tr>
<td>Nevada</td>
<td>Nevada implemented early start program and allowed medical establishments to operate in the adult-use market prior to issuing adult-use licenses. For 18 months, the state only accepted applications from persons holding medical marijuana establishment registration certificates.</td>
</tr>
<tr>
<td>Oregon</td>
<td>Medical marijuana establishments allowed to sell to adult-use consumers prior to first adult-use licenses being allocated.</td>
</tr>
<tr>
<td>Vermont</td>
<td>A bill allowing recreational retail was approved only in October 2020 and there are currently no active adult-use licenses. Bill prioritizes medical establishments for adult-use program.</td>
</tr>
<tr>
<td>Washington</td>
<td>Washington merged its medical and adult-use systems. The 2015 Cannabis Patient Protection Act gave some degree of priority to existing medical licensees.</td>
</tr>
</tbody>
</table>

6. Residency requirements for licensees

As with any other regulated industry, the new adult-use marijuana programs impose various criteria on their licensees, including requirements pertaining to the residency status of the applicant. To date, the majority of the eleven states with recreational marijuana have adopted some residency requirements for licensees within the industry. But as additional states move forward with adoption, it is worth considering pros and cons related to this issue.

Pros

The primary benefit of adopting residency requirements for cannabis licensees is to control which people are involved in the industry and to limit out-of-state companies and investors who might overwhelm smaller local businesses and create oversupply in the market. According to Mr. Ourso, “During the period of transition, from 2015 to the end of 2016, there were no residency requirements for growers, dispensary owners or processors. And that allowed a huge influx of out-of-state dollars and investment in cannabis businesses, which might have had a negative effect on existing medical marijuana growers who might have been less business savvy but have been involved in cannabis production for decades. And the end results is, not only are you driving the mom-and-pop small businesses out of the system, but you have too much product. You have this closed system, you can’t have interstate commerce, you can’t transport cannabis across state lines, but you are inviting a huge amount of investment not only from outside of the state but also outside of the country. These companies are developing economies of scale, production is ramped up
and you have now generated an oversupply problem.” Limiting licensees to only state residents allows states to create business opportunities for locals, forecloses the entry of large national conglomerates, and helps prevent a market glutted with product that has nowhere to go. Also, by creating a friendlier small-business environment with a local preference, states can encourage entry of traditionally underrepresented groups into a new industry. Additionally, the Financial Crimes Enforcement Network issued guidance in 2014 that identified an owner’s non-resident status as a potential red flag for federal enforcement. Thus, residency requirements could have potential legal benefits for the state’s marijuana industry for as long as federal criminal enforcement remains a possibility.

**Cons**

By limiting licenses to only state residents, the state is limiting the amount of resources available both to the new industry and to regulators whose ability to charge sizeable fees might be affected. Residency requirements limit who can get involved in the industry and the available business capital and expertise, which can delay growth in localities that do not have local entrepreneurs with sufficient resources and know-how to enter the industry effectively. Lastly, a state that limits licenses to residents might face legal challenges from out-of-state cannabis business owners as happened in the state of Maine.

Table 6. Residency requirements

<table>
<thead>
<tr>
<th>State</th>
<th>Residency Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska⁶⁴</td>
<td>All individuals that have a direct/indirect financial interest in the marijuana establishment must be a resident of the state.</td>
</tr>
<tr>
<td>California⁶⁵</td>
<td>Proposition 64 included initial residency requirement, which expired on December 31, 2019.</td>
</tr>
<tr>
<td>Colorado⁶⁶</td>
<td>Retail applicants must demonstrate 2 years of residency. In 2019, HB19-1090 changed ownership structure to allow for publicly traded companies, therefore effectively removing the residency requirement for most owners. HB 1080 removed employee residency requirement in 2020.</td>
</tr>
<tr>
<td>Illinois⁶⁹</td>
<td>Residency requirements apply to social equity licenses.</td>
</tr>
<tr>
<td>Maine⁷⁰</td>
<td>Maine removed residency requirement following a legal challenge.</td>
</tr>
<tr>
<td>Massachusetts⁷¹</td>
<td>Residency requirements apply to Craft Marijuana Cooperatives and Micro-businesses.</td>
</tr>
<tr>
<td>Michigan⁷²</td>
<td>Residency requirements apply to a Class A grower license, Marijuana Microbusiness license through December 2021.</td>
</tr>
<tr>
<td>Nevada⁷³</td>
<td>No residency requirements.</td>
</tr>
<tr>
<td>Oregon⁷⁵</td>
<td>Residency requirements were repealed by HB 4014 in 2016.</td>
</tr>
<tr>
<td>Vermont⁷⁵</td>
<td>No residency requirements.</td>
</tr>
<tr>
<td>Washington⁷⁶</td>
<td>All applicants must have resided in WA for at least six months prior to applying.</td>
</tr>
</tbody>
</table>

7. Home cultivation vs. no home cultivation

Government regulators often have very limited powers when it comes to deciding whether their state should or should not allow home cultivation because the majority of adult-use legalization efforts have been passed through ballot initiatives, which often legislate directly on this issue. Many marijuana reform advocates are strong proponents of “home grow,” and advocacy groups will often push hard to ensure a home grow provision is part of a ballot initiative proposal. Nevertheless, highlighting the pros and cons of home cultivation is important as more states turn to the legislative process to legalize adult-use marijuana, and because there are lessons for managing home grow rules even when they are mandated through an enacted initiative.
**Pros**

Home grow allowance can be beneficial to ensure more equitable access particularly for medical marijuana patients. For instance, an interviewee from Nevada acknowledged that accessibility challenges exist for patients because only a limited number of local jurisdictions allow marijuana industry establishments: “Both patients and recreational customers can grow their own if they live outside of a 25-mile radius of a dispensary in their county given the fact that people in many rural areas in Nevada would not otherwise have access to marijuana.” Home cultivation also allows the consumer to avoid having to pay relatively high prices for marijuana products. This can be especially important for patients who may struggle with the cost of marijuana and for whom a reliable supply of medical marijuana is very important. Additionally, home grow allows people to grow the strain of marijuana that fits their needs instead of relying on what is available at their local dispensary.

**Cons**

Home cultivation is relatively difficult to police and can create diversion to the illicit market if the personal allotment is large and regulations around home grow are not strictly enforced. Additionally, plants produced at home do not have to undergo the strict testing to which commercial growers are subjected, which can result in harmful pollutants being unknowingly ingested by users. Home grow may also decrease the number of market participants, potentially affecting the profitability and thus the viability of the industry as a whole. Concerns about the customer base can often lead industry players to advocate against home grow authorization, but sales data suggest that market concerns have not actually materialized in states that currently allow residents to grow marijuana for personal use.

Participants in our study identified home grow and issues connected to it as one of the major challenges they had to contend with. We discuss these issues throughout this report, including in the Challenges section, which presents ideas on how to mitigate the negative effects of home grow provisions.

**Table 7. Home cultivation allotments per state for adult-use**

<table>
<thead>
<tr>
<th>State</th>
<th>Home cultivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>Individual possession: 6 plants, 3 or fewer mature. Single dwelling: 12 plants, 6 or fewer mature.</td>
</tr>
<tr>
<td>California</td>
<td>6 plants per residence.</td>
</tr>
<tr>
<td>Colorado</td>
<td>6 plants per resident, 3 plants flowering at one time. 12 plants maximum for a residence.</td>
</tr>
<tr>
<td>Illinois</td>
<td>None</td>
</tr>
<tr>
<td>Maine</td>
<td>3 mature plants, 12 immature plants, and an unlimited number of seedlings.</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>6 plants per home, 12 plants for 2+ adults in residence.</td>
</tr>
<tr>
<td>Michigan</td>
<td>12 plants per individual.</td>
</tr>
<tr>
<td>Nevada</td>
<td>Only allowed if individual does not live within 25 miles of a dispensary. If so, s/he may possess up to 6 plants per person, 12 plants per household.</td>
</tr>
<tr>
<td>Oregon</td>
<td>4 plants per residence.</td>
</tr>
<tr>
<td>Vermont</td>
<td>Two mature plants, or four immature plants per dwelling unit.</td>
</tr>
<tr>
<td>Washington</td>
<td>None, only patients are allowed to cultivate marijuana for personal use.</td>
</tr>
</tbody>
</table>
B. Lessons for success

The twelve former and current government officials that were interviewed as part of this project represent states that have adopted different structures and regulations and have undergone the transition from medical to adult-use marijuana at different times. Yet, when sharing their lessons learned, there was considerable agreement on what steps government regulators can take to ensure a smooth transition and long-term success. Perhaps unsurprisingly, the most frequently mentioned lesson was to learn from other states’ experiences, and this entire report seeks to help operationalize that advice. The list below, though not exhaustive, represents the most frequently mentioned ingredients necessary to success.

1. Cultivate ongoing stakeholder engagement

When interviewees were asked what advice they would like to impart to other states, the most commonly mentioned element was the importance of ongoing and frequent stakeholder engagement from within the government, from industry players, and from the public. The nature of the cannabis industry and the product it sells touch on myriad aspects of public, private, and commercial life. Seeking input from various actors is crucial to ensuring effective regulation that will protect public health and safety, but that will not hinder the ability of the industry to grow. As stated by Ron Kammerzell, former senior director of enforcement with Colorado Department of Revenue: “Make sure that you have a full engagement from all stakeholders, and that you do it continuously. Not just at the time of implementation, but that you continue to receive input from them throughout the process and beyond. The reason we were successful was because we had so many diverse viewpoints represented, and we listened to their perspectives.”

“Make sure that you have a full engagement from all stakeholders, and that you do it continuously. Not just at the time of implementation, but that you continue to receive input from them throughout the process and beyond.”

—Ron Kammerzell, former senior director of enforcement, Colorado Department of Revenue

The strategies employed by the four states varied. Right after the passage of Amendment 64, the governor of Colorado established a taskforce charged with delivering recommendations to the legislature on how to best implement an adult-use marijuana regime. According to Mr. Kammerzell, “The appointment of an implementation task force was critical to the successful roll out of Amendment 64. The task force was comprised of 28-30 members who represented all different viewpoints on marijuana legalization—both proponents from the industry and opponents such as health care providers and law enforcement—it had members of the state legislature, members of local governments, it had public defenders. It was just a really broad landscape of different viewpoints.” Interviewees from Michigan and Oregon highlighted the importance of conducting focus groups and public information/listening sessions across the state. While not all stakeholders will be satisfied with specific limitations and rules, ensuring transparency in decision making can alleviate some pressures government regulators will face. “A successful regime has to involve stakeholders. You need to be constantly transparent about what is going on, what do you intend to do and hear the communication from them about what is going on in the marketplace. They bring the best source of information. Regulators and government officials only have so much time in their day, industry lives it all the time. Be out there, be present. You are not going to please everybody in the industry but being available and having open communication is huge.”

The importance of building an effective feedback mechanism for creating a successful regulatory system was emphasized by several interviewees. “Collaboration, education and transparency are critical. Most states that are implementing these programs are doing it as sort of a hypothetical scenario, you cannot go to the businesses to find out how your regulation will impact them because the businesses do not exist yet. It’s important to build in flexibility into your program so you can adapt as the program develops.”
2. Ensure interagency coordination

Whether states designate a specialized agency whose sole responsibility revolves around marijuana regulation or choose a decentralized regulatory regime, the need for effective interagency coordination is essential. The nature of the marijuana product and the surrounding laws requires expertise housed in different government agencies, including but not limited to public health, public safety, taxation, agriculture, and the environment. As Mr. Kammerzell stated, “One agency will not be able to do it all. The importance of interagency coordination is really critical to the success of the program.”

Cross-agency collaboration can be difficult regardless of the setting, but tackling a brand new multi-dimensional issue within a complex legal environment presents additional challenges. According to Mr. Brisbo, there are at least two reasons why agencies might be reluctant to get involved. “If agencies do not have funding or dedicated resources, it is just one more thing to add to everything they have to work on. And second, we did meet with some challenges, where because it is marijuana which is illegal federally, if it is an agency that has any sort of federal dollars coming in, they struggled to determine how they might be able to help without running atoul of their federal contract.” According to another government official, Colorado addressed this issue early on: “The governor recognized this and about a year and a half into it created the Office of Marijuana Coordination within the governor’s office and appointed Andrew Freedman to lead the office. His role was to bring agencies together and work together to resolve issues we were facing. And that was critically important.” When asked how he was able to secure buy-in from the various agencies, Mr. Freedman mentioned two things: support from his executive and the realization among the other agencies that their participation mattered. “Every other week we had a cabinet level meeting where ten department heads and their key staff showed up. Anything related to cannabis, including questions of how to spend the resulting revenue, had to run through this working group and the group had to sign off on it. And that made people see how important the group was and how important it was for them to be there and be ready. I had power to make them come together because the governor was taking my word as gold. If at any point the governor showed lack of trust in me, I would have lost all my power.”

“One agency will not be able to do it all. The importance of interagency coordination is really critical to the success of the program.”

—Ron Kammerzell, former senior director of enforcement, Colorado Department of Revenue

3. Align adult-use regulations with medical marijuana regime and applicable federal rules

To date, all states that have legalized adult-use marijuana have done so after already having a medical marijuana regime in place. According to several interviewees, creating a medical marijuana regime with an eye toward eventual adult-use legalization can make any future transition faster and easier to manage. As stated by Mr. Brisbo, “When we implemented the medical program, we did that always with a thought ahead, understanding that at some point recreational legalization was going to become a reality. We built the program so that it could expand and incorporate additional functions as best as we could predict at that time.” If a state already has existing regulations for medical marijuana, developing the adult-use program using similar laws and structures can ease the transition. As Mr. Jim Burack, the director of the Marijuana Enforcement Division at the Colorado Department of Revenue put it: “If you look at the statutes that set up medical and adult-use retail, you will see that they are nearly identical. The language is
borrowed straight across. And then not surprisingly, the language in rules and regulations on both medical and retail side is largely harmonious, and we spent a lot of time creating that harmonization.” States should consider using similar statutory structures and terms when making the transition because it provides businesses and government officials with a familiar and understandable regulatory framework.

In addition to trying to make regulations as consistent as possible across the two marijuana programs, the interviewees also recommended aligning regulations with applicable federal rules. According to Mr. Brisbo, Michigan approached marijuana regulation with an eye on a possible federal framework: “We have not had much interaction with the federal government, but our entire approach to standards to which we hold our businesses is to anticipate what a federal framework might look like. We are trying to encourage and incentivize growers and processors to adhere to GACP [good agricultural and collecting practices] and GMP [good manufacturing practices] standards. We are also looking at standards for products with various means of consumption, whether it be smoked products or edible products, looking at analogous standards at the federal level for those type of products and trying to adopt those. Even though it puts us on the stricter side of the scale, we think it best positions businesses in our state to be effective in a broader market should that come to pass.” An interviewee from Colorado echoed the sentiment: “Wherever we can align with the federal guidelines, we do that. Not only is that the best practice, it will also be helpful down the line in the event that marijuana is legalized federally. We look for ways that the testing program can align with federal standards.” While at this moment there is no leadership from the federal government on setting standards specific to the marijuana industry, if marijuana is eventually legalized, businesses in states that have paid attention to other potentially applicable federal standards will be better positioned to succeed in an open market environment.

“Our entire approach to standards to which we hold our businesses is to anticipate what a federal framework might look like. We are also looking at standards for products with various means of consumption, whether it be smoked products or edible products, looking at analogous standards at the federal level. Even though it puts us on the stricter side of the scale, we think it best positions businesses in our state to be effective in a broader market should that come to pass.”

—Andrew Brisbo, executive director, Michigan Marijuana Regulatory Agency

4. Plan for more than you think you need

Building a regulatory structure for a new industry is a complex process, requiring significant resources. When asked about this aspect of the transition process, Mr. Kammerzell put it succinctly: “It will be harder than you think, it will cost more than you think and it will take longer than you think.” Interviewees stressed three categories of resources: funding, staff, and time.

FUNDING

Creating and maintaining a new regulatory structure can be incredibly expensive. One challenge for state regulators and the legislature is identifying the start-up and the long-term funding source for the program to ensure that regulators have adequate resources to do their jobs. According to an interviewee from Colorado: “Make sure you have the resources to do it the right way. You do not want a fledgling regulatory agency. We learned a hard lesson with our medical program which ran out of money about two years into its operation and had to lay off staff. We learned a valuable lesson from that—make sure you have a stable, predictable funding source for the regulatory agencies that are going to implement the program.” Michigan and Oregon allowed the regulatory agencies to fund their initial operations by borrowing against the general fund and the liquor fund, with an expectation that this money will be repaid from future marijuana tax revenues.
Regardless of what strategy a state employed, all four states’ officials stressed the importance of creating safeguards to ensure sufficient funding. According to Mr. Kammerzell, “We collect licensing and application fees to cover the cost of the program, but we made sure that if we had a shortfall in those, any deficit would be covered by the marijuana tax revenue. We had a safety net for adult-use that we did not have for medical. And initially, we did use the tax revenue because we did not have enough money coming in from license applications, so for the first two years or so we used a significant amount of tax revenue.” Michigan used a different strategy, giving regulators flexibility to set their fees in a way that would allow them to collect sufficient revenue to fund their operation. “We have benefited from some very forward-thinking language in the statutes that allows us to set our fees to ensure that we are adequately funded. I do not think the freedom to set the fees is common, but that kind of goes to the argument for flexibility. It allows us to adapt. We have to be able to explain why the fees need to be what they need to be, but we do not have to go back to the legislature for fee increases to ensure adequate funding.”

STAFF

Another resource crucial to successful implementation is having a sufficiently large team of skilled staff. All states began their programs with relatively small staffs of four to ten people but expanded over time as the programs grew both in size and complexity. It is difficult to approximate the right staff size for agencies initially and over time. According to one interviewee, “The size of your staff is really going to be driven by the statutes—what kind of industry are they going to allow. How many establishments are they going to allow, how are you going to regulate them, what your requirements are.” But states should be prepared to need more staff than might be expected. “My recommendation would be to overestimate. Because in our experience, whatever we thought we will need, we probably should have doubled it. Because with every new position we get, we get more work, more ideas of what we should be doing. So overestimate your staff needs.” The interviewees recommended looking to the medical program for staff with cannabis-specific expertise, as well as other departments involved with managing highly regulated industries such as gambling, alcohol, and tobacco.

“My recommendation would be to overestimate. Because in our experience, whatever we thought we will need, we probably should have doubled it.”

—Interviewee

TIME

The implementation timeline consists of two major elements: the time needed for creating a regulatory structure for the new industry and the time needed for new licensees to produce a sufficient amount of marijuana and open up retail establishments to meet demand. The length of these timelines varies from state to state, influenced by factors such as whether a state already had a well-functioning medical marijuana regime, whether a state was a pioneer and thus lacking models from other states, and whether any firm implementation deadline was set by a ballot initiative. While the timeline to “opening” for the four interviewed states ranged between 6 and 12 months, Oregon officials suggested that states should plan for about 12 to 18 months before the program is fully operational with sufficient growers and retail locations up and running. This timeline can be shortened by allowing medical licensees with existing production and retail capacity to engage in the adult-use regime and by states engaging in pre-planning if polling suggests that an adult-use initiative is likely to pass. According to Steve Marks, the executive director of Oregon Liquor Control Commission, “We knew as of June 2014 that adult-use would be on the ballot and was likely to pass. We spent a lot of preparatory time just thinking about what we had to do. We could not spend any public resources, because we did not have the program, but we put together a list of primary duties for regulating recreational cannabis, we put together a communication plan and initial staffing plan. The initiative passed in November and we were able to get our initial staffing from the legislature emergency board on December 14th.”
5. Provide support to local governments

To date, all states that have legalized recreational marijuana have given local governments broad powers to limit or completely ban some or all aspects of the industry from operating within their jurisdiction. Large urban areas generally embrace the nascent industry while smaller, rural localities often opt out of the industry altogether. For instance, in Michigan, only 70 out of 533 incorporated cities chose to participate in the adult-use marijuana program, representing approximately 13% of Michigan’s population. Low uptake can threaten the competitiveness of the industry as stated by Mr. Freedman: “If you do not get the industry up and running, it does not matter what you do. If you do not build something within two years that is able to compete with the illicit market in terms of accessibility for the consumer, then it does not matter what you have done, the system will fail.”

While local hesitancy could be partially a reflection of local political attitudes toward marijuana, reluctance to engage may also be driven by a lack of resources and uncertainty about community impact. Smaller, local governments often lack the administrative infrastructure of larger municipalities that is needed to study the potential impact of the new industry and draft new regulations and ordinances that will serve the interest of their constituents. With the uncertainties, many simply decide to wait: “We see some hesitancy, more so on the adult side than what we saw on the medical side. I think that is going to evolve over time. Just from speaking with some local officials, they are planning on allowing facilities, they are just taking their time to decide how they want to structure their ordinances. Others are taking the wait-and-see approach to see how it works in other municipalities before they dive in.”

Local concerns could be alleviated if the state provided more support in the form of “tool kits” to smaller municipalities and rural counties, such as providing sample ordinances, providing research on the potential impact on their revenue streams and costs, and providing advice on more complicated issues like zoning and taxes. In the words of Mr. Freedman from Colorado: “I wish we had put out model regulations for cities so they could understand what powers they had and made it easier for them. Large cities can spend a lot of time thinking about this, but smaller cities and counties simply do not have the bandwidth. [...] The one thing that states neglect to do when there is an issue of local control is help cities and counties that can’t afford high-priced consultants, to help them figure out the most complicated issues, to write issue briefs for them, give them the tools necessary to do a good job. There should be more hand holding with local control than there is.”

“If you do not get the industry up and running, it does not matter what you do. If you do not build something within two years that is able to compete with the illicit market in terms of accessibility for the consumer, then it does not matter what you have done, the system will fail.”

—Andrew Freedman, former director, Office of Marijuana Coordination, State of Colorado

6. Start strict and loosen up later

State marijuana regulatory structures often seek to serve two overarching goals: protecting public health and safety while at the same time creating a viable industry able to compete with the illicit market. Striking the right balance between these goals can be especially difficult when the long-term consequences of choices regulators make are not yet known. When asked about this balance, several interviewees stated that their advice was to start strict, conduct ongoing reviews of how existing regulations are working and loosen up later as needed. This advice was specifically mentioned for marijuana edibles, product testing, and home grow. According to Mr. Kammerzell, “In terms of method of consumption, we started pretty wide open and we have restricted it as time went on. But I will tell you, it is much easier to be more restrictive up front and then relax the restrictions going forward than it is to let the horse out of the barn and then get him back in. So be cautious, be restrictive, you can always relax it over time.”

"If you do not get the industry up and running, it does not matter what you do. If you do not build something within two years that is able to compete with the illicit market in terms of accessibility for the consumer, then it does not matter what you have done, the system will fail.”

—Andrew Freedman, former director, Office of Marijuana Coordination, State of Colorado
“It is much easier to be more restrictive up front and then relax the restrictions going forward than it is to let the horse out of the barn and then get him back in.”

—Ron Kammerzell, former senior director of enforcement, Colorado Department of Revenue

This sentiment was echoed by interviewees from Nevada: “When we meet with regulators from other states, a lot of them commend us on how we handle regulations because we are relatively strict. We check everything, every ingredient in every product is recorded and checked. Many states have told us that they wished they at least started that way because it is much harder to claw your way back and try to regulate something that you let loose earlier, than it is to start with stronger regulations and then ease up over time.” This became crucial when the lung injuries associated with vaping swept the nation. “I would recommend starting strict and loosening up as you go along. I think starting with tight control is really important because it gives you the strength and teeth to take action if needed. When the outbreak of vaping-associated pneumonia started and it was discovered that vitamin E acetate had something to do with it, we were able to tell immediately whether any products in the state had this ingredient because every ingredient is on file. So, we knew immediately we did not have any, but if we did, we would have known immediately which product we needed to pull from the market.”

The first adult-use marijuana programs are still less than eight years old and have been modified just about every year. Continual review and assessment of existing regulations is key to improving the structure and minimizing unforeseen negative consequences. For instance, Colorado had to revisit and revise home grow regulations as described by Mr. Kammerzell: “We had a pretty significant problem with home cultivation. An individual, both a patient or recreational user, was allowed a total of 12 plants, six mature and six immature. And we started to see some significant issues around this, something we refer to as ‘grey market’—something that was technically legally grown but transferred illegally. We had criminal enterprises that would come in, rent a house, gut it, and get a bunch of patient cards to justify the high number of plants which were then not being used for legitimate purposes. So, in 2017 the legislature, along with the governor’s office, passed further restrictions that specified that the 12-plant limit applied to a residence, regardless of how many adults or patients resided there.”

C. Challenges

In addition to seeking advice for government officials from other states who might be charged with managing the transition from medical to recreational marijuana, we also asked which issues were most challenging to manage. The answers differed from state to state, but the following four topics stood out as shared concerns: social equity and tax revenue utilization, illicit market and organized crime, management of home grow, and overconsumption. Each of these topics is described in more detail below.

1. Social equity and tax revenue allocation

The topic of revenue allocation is a challenging issue for many states as they grapple with the relatively recent emphasis on social equity and addressing the past harms of marijuana prohibition. The allocation of revenue is often determined by ballot or statutory language, but interviewees agreed that being clear on where the money goes is important. “If you allow the tax revenue to go to the general fund, it just becomes a black hole. We wanted to make sure that the costs and impacts of legalization were covered by the revenue that was derived from it.” Because tax revenue from marijuana usually does not make up more than 1% of a state’s general budget, and thus is unlikely to meaningfully impact areas that are capital intensive such as education, Mr. Freeman suggested states should consider investing the tax revenue into something that can be directly impacted with the marijuana revenue alone.

“I wish we had thought through the tax revenue in a different way. I would have tackled only an issue that we thought we could handle or almost handle with just the marijuana tax revenue. If you spent half of the tax revenue on small minority business loans, you would have created the best state-run small minority business loan system in the country.
If you dedicated the other half to ending veterans’ and single parent homelessness, you could have solved that issue. We could have totally won those issues. But instead, everybody came in to grab a different issue and everybody was left wondering where the tax revenue went. Because they hear about all this money going to schools but in the grand scheme of things, $40 million is not a lot of money when we are talking school buildings. Not everyone is going to get a new gym.”

Table 8. Revenue allocation in selected states

<table>
<thead>
<tr>
<th>State</th>
<th>Type of revenue allocation</th>
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<tbody>
<tr>
<td>Colorado</td>
<td>Two different tax revenue sources: marijuana sales tax and excise tax. <strong>Marijuana sales tax revenue:</strong> 15% from the tax revenue on marijuana sales is allocated to local governments and apportioned according to percentages of marijuana retail sales occurring within city/county boundaries. 85% is allocated to the Marijuana Tax Cash Fund (required to be spent for health care, health education, substance abuse prevention and treatment programs, and law enforcement). <strong>Marijuana excise tax revenue:</strong> First $40 million is allocated to the Building Excellent School Today Fund. Revenue in excess of $40 million is credited to the Public School Fund.</td>
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<tr>
<td>Michigan</td>
<td>First $20 million until 2022 is spent on researching marijuana’s usage in health care. 15% spent on municipalities with operating adult-use establishments. 15% to counties with operating adult-use establishments. 35% to school aid fund for K-12 education. 35% to Michigan transportation fund.</td>
</tr>
<tr>
<td>Nevada</td>
<td>“Any tax revenues, fees, or penalties collected will go to carrying out the program and costs of the Department and of each locality in carrying out this chapter and the regulations adopted pursuant thereto. Any remaining money will go the State Treasurer to be deposited to the credit of the State Distributed School Account in the State General Fund.”</td>
</tr>
<tr>
<td>Oregon</td>
<td>20% is distributed to cities/counties by population and if opt-in. 40% to State School Fund. 20% to Mental Health, Alcoholism, and Drug Services. 15% to the Oregon State Police. 5% to the Oregon Health Authority for drug treatment and prevention.</td>
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The issue of social equity is closely related to the discussion about revenue allocation. While discussions of social equity and the need to redress past harms of marijuana prohibition may now seem ubiquitous, it is a newer concern garnering considerable attention only in the last few years. For early reform states, the topic of social equity was simply not on their radar initially. According to an interviewee from one of the first states to legalize marijuana, “Of course there are things that you think about in retrospect that we should have addressed or could have addressed. The one that stands out the most is social equity. It just was not on anyone’s radar at the time. I do not recall it ever even being brought up by the task force members at the time. I think that was an opportunity that was missed.” Most of the latter reform states have tried to include measures aimed at ensuring greater inclusion of disproportionately affected communities in the marijuana industry, but the measures are often seen as piecemeal and insufficient. As one former government official put it: “I am not sure if any state has really figured it out yet, if there is a model that everyone can look at and say, yes, that is what we want to do. Illinois is probably the closest to having a real tangible program, but it is not perfect either.” Regardless of the form of social equity structures, it is advisable to incorporate funding commitments into an adult-use regime from the beginning. In most states, changing allocation levels that are formalized via statutes or laws is a difficult process. As explained by Mr. Brisbo, “In the state of Michigan, any changes would have to occur legislatively on the adult-use side because it was a voter-initiated law. It takes three-fourths of votes in both the house and state senate, as well as a signature by the governor to enact any amendments. That is a high threshold to achieve to make changes to tax allocation.”

Moreover, while the majority of existing social equity efforts aim to encourage people from disproportionately affected communities to participate in the marijuana industry, Andrew Freedman warned about focusing solely on industry involvement given the capital intensive nature of the product: “I worry about the economics. Cannabis is a highly
regulated agricultural commodity. And highly regulated agricultural commodities require capital. The way you succeed in those industries is if you have the most capital. If you have the most capital, regardless of how the government sets up the system, those with most capital are going to win because they will be able to reach economies of scale that people who do not have access to capital simply will not be able to reach.” He recommended that instead of focusing social equity efforts on the cannabis industry, states focus on giving general opportunities to people from affected communities regardless of which industry they want to enter. “Giving someone a break on the licensing fee will hinder the licensing department, might make someone feel good about getting a break, but does nothing to change the ultimate economics of the industry. It might falsely lure you into an industry that you cannot compete in. Small minority business loans work amazing and can help different kinds of businesses that currently do not have access to capital. The other thing to consider, let’s say that you did a fantastic job with minority owned cannabis businesses, you are still talking about 200-300 people at most. It might be symbolically very important to people, but if you are talking about a small minority business loan program that has $80 million in the bank every year, you are talking potentially about thousands of people getting a chance to start their own business.” States should look beyond cannabis when designing their social equity efforts, and instead use a multi-prong approach to supporting the development of disproportionately affected communities.

“Giving someone a break on the licensing fee will hinder the licensing department, might make someone feel good about getting a break, but does nothing to change the ultimate economics of the industry. It might falsely lure you into an industry that you cannot compete in. Small minority business loans work amazing and can help different kinds of businesses that currently do not have access to capital.”

—Andrew Freedman, former director, Office of Marijuana Coordination, State of Colorado

2. Illicit market and organized crime

In August 2013, Deputy Attorney General James Cole issued a memo providing guidance on federal enforcement priorities which suggested key issues of concern to guide states regulating their marijuana markets. The memo suggested states consider “implementing effective measures to prevent diversion of marijuana outside of the regulated system and to other states, prohibiting access to marijuana by minors, and replacing an illicit marijuana trade that funds criminal enterprises with a tightly regulated market in which revenues are tracked and accounted for.” The issue of preventing diversion, eliminating illicit markets, and ensuring that criminal enterprises do not get involved in the industry were among the top priorities and top challenges for all states creating legal marijuana markets.

Two factors were mentioned by the interviewees regarding the illicit market: preventing organized crime from hiding behind complex and opaque business structures and controlling the amount of plant materials produced in a state through the legal market and home grow. While a majority of people who participate in the illicit marijuana market do so on a small scale, states quickly realized that they needed to guard against more sophisticated actors taking advantage of the newly legalized industry. “Ownership and background checks is an area where we are currently trying to improve. We had a limited background check initially, but we did not fully anticipate the growth of the industry. So now we are bringing in people from gaming and having them train our investigators on how to scrutinize these businesses and publicly traded companies. Unfortunately, organized crime is highly sophisticated, so we need to be able to make sure that they are not using certain companies to get into the industry. We have not run into it much yet, if at all, but that was one of the most important things from the Cole Memo—you need to keep them out of the industry. And we take that very seriously.” Eliminating complex and opaque business structures was also mentioned by an interviewee from Colorado when asked what he would have changed about the system they originally put into place: “What I wish we had done was to simplify business structures. I wish we had said, you have to account for 100% of your business through a person and not create an impenetrable LLC where you can hide ownership interest. We need to be
able to track every percentage of equity and revenue sharing that we have. Here are all the people and here are their fingerprints. We spent a lot of time on very complex business structures and we did not really have the right people hired to be able to track them down."

The second factor mentioned involved making sure that the state adopts sophisticated production tracking systems and limits home grow. Colorado has developed a sophisticated system that allows it to track supply in real time and prevent overproduction as described by Shannon Grey, marijuana communication specialist with Colorado Department of Revenue: "Our production management system is a real Colorado success story. In Colorado we have a production management system that is tier based. Both medical and recreational cultivators can grow a certain number of plants per their license based on a number of factors. If they want to increase their tier, they have to submit an application that is either granted or denied. We can also reduce their tier if we see that a licensee is not moving a significant portion of their product within a certain timeframe. That might mean they have too much product and no outlet to distribute it. We are able to monitor this through our seed to sale tracking system called Metrc which can give us minute-to-minute information."

Lastly, some interviewees expressed concern that liberal home grow policies might contribute to the illicit market. According to an interviewee from Michigan: "We have fairly liberal allowances for home grow in terms of the number of plants and product they are allowed to possess. On the medical side a patient can grow 12 plants for personal use and a caregiver can be a patient and also serve as a caregiver for five other patients so he or she could grow up to 72 plants at home. On the adult-use side, we also allow 12 plants per individual. It is probably more than what is necessary for one person's consumption, so I think the risk of diversion exists. Unfortunately, the 12 plants on the adult-use side is part of a voter-initiated law so that would be very challenging to change." When asked about strategies states can use to combat the illicit market, Ms. Edgerton mentioned that completely eliminating the illicit market might not be possible, but it could be significantly lessened by making the regulated market a success: "As long as you have the caregiver market, that will always lend itself to the illicit market. The hope is that eventually you will have such a great and robust recreational and medical market that the caregivers do not make enough money and go out of business."

"As long as you have the caregiver market, that will always lend itself to the illicit market. The hope is that eventually you will have such a great and robust recreational and medical market that the caregivers do not make enough money and go out of business."

—Shelly Edgerton, former director, Department of Licensing and Regulatory Affairs, State of Michigan

3. Overconsumption

There are no nationwide data on medical marijuana users, but studies in individual states such as Ohio, Michigan, or California indicate that the average user tends to be over 40 and is focused on treating specific medical conditions. On the other hand, typical recreational users tend to be younger and have a different motive for using marijuana, which can have negative consequences, especially for individuals who might not have a lot of experience with using manufactured marijuana products. Colorado, being first to legalize recreational marijuana, had to contend with this issue early on. "We totally missed the boat on restrictions on edible products," said Mr. Kammerzell. "We had no issues with edible products on the medical marijuana side, no issues with overconsumption. But very quickly into the implementation of adult use we started to see significant and troubling issues with overconsumption and had several very tragic cases. Adult-use consumers are uneducated about the effects of using edible marijuana products, so we needed to make it easier for them to not overconsume. We convened a working group consisting of medical professionals, law enforcement, universities and we implemented a 10mg individual serving size. If a product had more than 10mg of THC in it, it had to demark the product in a way so the consumer can easily tell what is an individual serving of that product."
Given the variety of products on the market and the different levels of potency, standardizing serving sizes and educating consumers on responsible use is paramount to minimizing negative effects on individual and public health. Additionally, an interviewee recommended that states collect detailed data on heavy usage, which is more likely to have a negative impact on a person’s overall well-being. “I think we should have done a much deeper analysis into heavy users. It would be helpful to know whether their use changes when prices change, it would have helped us create a target goal for pricing to minimize heavy use.” Data collection is also crucial when it comes to tracking the impact of marijuana legalization on children and adolescents’ rate of use and access to marijuana. Of the four states included in our study, only Colorado started to collect detailed data on youth consumption after the legalization of marijuana while the other three states mainly rely on the annual survey of youth use conducted by the federal government.

4. Home grow

The challenges connected with monitoring and managing home grow have been discussed in several preceding sections addressing the issues of diversion and the illicit market. Home grow is often a part of citizen-driven ballot initiatives, preventing legislators and regulators from banning home grow entirely even if so inclined. Yet, regulators are keenly aware that effectively managing home grow is necessary for public safety and to limit the possibility of diversion to illicit markets. Two elements mentioned by interviewees when discussing how to best limit any negative effects of home grow provisions are: giving law enforcement agencies clear and enforceable directions and keeping the allowed number of plants at a low level.

As described in previous sections, Colorado experienced a serious diversion problem in the early years of its adult-use regime as described by Mr. Kammerzell: “We had criminal enterprises who would come in, rent a house, gut it, get a bunch of registered patient cards and they would grow a lot of marijuana. And none of it was being used for legitimate purposes. in fact, most of it, if not all, was being diverted out of the state to other jurisdictions. We were hearing from the law enforcement community, not only at the state and local level, but also in meetings with the Drug Enforcement Agency that we have a significant problem.” Local law enforcement agencies often attempted to respond to citizen complaints about a heavy smell of marijuana or suspicious activity at a residence but were unable to act because of the 12-plant per adult quota. “What we were finding was that there was a lot confusion in the law enforcement community. When law enforcement would respond to a neighborhood complaint, the individual in the house would throw a bunch of medical patient cards at them, or say, we have ten people living here so we are allowed to grow 120 plants in the residence. So, the law enforcement agencies would throw up their hands, because there was no clear line. They were not going to use their limited resources on something that is not enforceable. And so in 2017 we fixed that by saying, here is your clear bright line, if you get a complaint and you go to a house and they have more than 12 plants, it is automatically unlawful.” Providing law enforcement with clear, enforceable rules is key to them being willing and able to respond effectively.

The second element is creating home grow allotments that are not too large and thus do not lend themselves easily to diversion. In Michigan, the 12-plant allotment is generally seen as too large by government regulators. As mentioned in a previous section, the advice often given was to be restrictive. As one interviewee put it, “If you are going to home grow, it needs to be incredibly restrictive. Twelve plants is very generous for one residence. Most states are more in the vicinity of four to six plants, and that seems like a more reasonable number to me.”
CONCLUSION

Eight years have passed since Colorado and Washington became the first states to venture into the regulated market of adult-use marijuana consumption, with nine other states following suit as of October 2020. States that have legalized marijuana for adult use have faced challenges as legislators and regulators aim to create effective regulatory structures that balance the varied interests of the public and the industry. As states adjust and refine their programs, we continue to learn more about the key decision points states face as they contemplate transitioning from medical to recreational marijuana regimes, about the elements necessary for success, and about the challenges they experienced along the way.

The purpose of this report is not to address all possible questions or create a detailed roadmap for the transition process. Each state’s circumstances require a unique and tailored approach to policy and regulations that is not always readily transferrable to others. Rather, the purpose of our research was to collect generalizable lessons learned and information that can be useful to all states that are preparing for adoption of adult-use marijuana legalization. The list of lessons and challenges covered in this report is by no means exhaustive but should offer useful starting points. The information provided by participating states should help future policymakers understand the complexity of creating a working regulatory framework for an industry that touches a multitude of stakeholders and state actors.
A. Colorado

Efforts to make marijuana available for medical patients have a long history in Colorado, which decriminalized marijuana in 1975. In 1979 the state legislature approved the Dangerous Drugs Therapeutic Research Act, enabling medical marijuana consumption for cancer and glaucoma patients. Unfortunately, the bill did not receive a federal government approval, which was required for patients to begin receiving marijuana. The situation repeated itself again in 1981 when Colorado legislators approved another medical marijuana bill but were unsuccessful in securing an approval from the federal government. Medical marijuana was finally approved in 2000, when Colorado voters approved Initiative 20 as an initiated constitutional amendment.

After the initiative passed, Amendment 20 was adopted and codified at Section 14 of Article XVIII into the Colorado Constitution. Under this new amendment, medical marijuana was overseen by the Colorado Department of Public Health and Environment (CDPHE). Amendment 20 enabled medical patients to possess up to 2 ounces of a usable form of marijuana and no more than six plants, with three or fewer being mature. In 2016 the statute was amended to limit the number of plants that can be grown in a residence to twelve, regardless of the number of adults living there. In 2001, CDPHE began accepting patient applicants for the medical marijuana registry identification card system. Patients could begin to grow their own marijuana or identify a registered caregiver who could supplement or provide their entire supply. The Colorado medical marijuana community remained fairly small until 2009 at about 5000 patients and less than two dozen dispensaries, but started to grow rapidly after the Obama administration's policy memorandum deprioritizing prosecution of state-compliant marijuana activity and after the Colorado Board of Health's decision not to limit how many patients medical marijuana dispensaries could serve.

As the medical program expanded, so did the number of active patients registered under the program. In early 2009 there were 5,051 patients with registered patient cards; by the end of 2010, this number had risen to 116,198. By 2009, 95% of counties in Colorado had registered cardholders, and dispensaries were becoming a regular source of supply for patients. In 2010, Denver had 250 dispensary storefronts and the city of Boulder had around 100 dispensaries.

Regulated medical marijuana establishments were operational for two years before Colorado voters approved Amendment 64 in 2012, legalizing full adult-use consumption and possession for adults 21 and older. Under this new amendment, the Department of Revenue (DOR) oversaw and enforced the legislation for the adult-use program. Oversight powers transferred from the DOR and Medical Marijuana Enforcement Division (MMED) to the Marijuana Enforcement Division (MED) in 2013 under HB 13-1317.

Following the recommendations of the Task Force, Colorado enacted a “grace period” for medical marijuana establishments already licensed and operating to be the first entities to apply for adult-use licenses. Medical marijuana establishments had three options: maintaining a medical license, transitioning fully to adult-use, or holding both license types (adult-use and medical). Adult-use licensing eventually opened for other businesses following the one-year moratorium. Critics argued this delay hindered potential applicants and created a system that favored already established entities. Colorado officials felt this would improve the oversight practices and enable efficient implementation for the adult-use retail market.
At present, MED enforces license compliance for both programs. In total, there are seven distinct medical marijuana licenses and ten distinct adult-use license types. Consumers and patients purchasing marijuana from licensed establishments are both required to pay some form of tax. Adult-use consumers were initially required to pay a 2.9% state sales tax on retail marijuana and a 10% retail marijuana special sales tax, which was changed in 2017 to a 15% total sales tax. Additionally, Colorado administers a 15% excise tax “levied on the first transfer of marijuana from a wholesaler to a processor or retailer.” Medical patients are exempt from paying the 15% sales tax and excise tax but are required to pay the typical 2.9% state sales tax. In addition to the tax differences, patients may purchase products with higher potency and quality. Patients may also purchase up to two ounces from a retail establishment, while adult-use customers are limited only to one ounce.

Colorado does not impose caps on the number of licenses, but the adult-use law allows for localities to enact their own restrictions on how many establishments operate within their jurisdiction. For example, in 2016 the city of Denver set a limit of 220 for retail storefronts and 299 for cultivation sites that may operate within the city’s boundaries. The state does not prohibit vertical integration because the Amendment 64 Task Force concluded that vertical integration, “[struck] a balance between those urging state-owned and operated retail stores to sell marijuana and those endorsing a more entrepreneurial, free market model.” When legislators eventually removed the medical marijuana vertical integration mandate it increased the competition among medical establishments and opened up the availability of products for patients and retailers.

In January 2020, SB 19-224 consolidated Colorado’s marijuana laws and also streamlined the state’s licensing process, cleared up inconsistencies between the medical and adult-use statute regarding unlawful acts, created new ownership categories, and established two new retail licenses.

Colorado’s first adult-use retail transaction occurred on New Year’s Day 2014 and within the first year the program generated $700 million in sales. In fiscal year 2019, Colorado recorded over $1.7 billion in sales. As of September 2020, Colorado had 590 adult-use and 433 medical marijuana dispensaries, which translates approximately into 10.3 adult-use and 7.5 medical dispensaries per 100,000 people.

B. Michigan

Unlike other states that had multiple failed ballot initiatives, voters in 2008 passed Proposal 1 in Michigan’s first attempt to legalize medical marijuana. Adopted as an initiated state statute, Michigan’s voters provided overwhelming support for medical marijuana, approving the initiative by a 26% margin and over one million votes. The initiative authorized the State Department of Community Health to operate and enforce the medical marijuana program throughout the state.

The Michigan Medical Marihuana Act (MMMA) allowed for patients and caregivers to cultivate marijuana for medical reasons but did not establish a regulated retail market for patient cardholders. Under the 2008 medical law, individuals registered as cardholders could home grow and participate in an unregulated network of caregiver clubs, which were located throughout the state and served as educational and community hubs often selling medical marijuana to patients or allowing patient-to-patient sales on their premises. This model lasted until 2011, when the Michigan courts ruled against the MMMA membership organization, the Compassionate Apothecary, essentially ending patient-to-patient sales and shutting down operating facilities. This ruling was affirmed in 2013 by the Michigan Supreme Court.

Three years later, in 2016, Michigan’s legislature approved the Medical Marihuana Facilities Licensing Act (MMFLA Act 281), which established an official regulatory framework for licensed establishments. MMFLA was created to provide a licensing system for medical marijuana growers, processors, provisioning centers, secure transporters, and safety compliance facilities. This act also created a new Medical Marihuana Licensing Board and established the general licensing structure later utilized for the adult-use program. Under MMFLA, patient possession limits remained at 2.5 ounces and 12 plants per patient. The new act increased supply options for patients and expanded access by creating a system of licensed facilities. Patients purchasing cannabis from licensed provisioning centers were required to pay a
3% excise tax, on top of Michigan’s 6% sales tax. The 3% excise tax was eventually repealed 90 days after adult-use legalization was approved.

In 2018, adult-use legalization was initiated as an indirect state statute under the same title as the medical marijuana initiative, Proposal 1. Full legalization passed decisively, although not with quite the same level of support as medical marijuana, passing with an 11% margin and less than 500,000 votes. The adult-use initiative designated the Department of Licensing and Regulatory Affairs (LARA) as the main oversight entity in charge of implementation and enforcement of the new law. LARA’s duties included approving and denying applications, investigating applicants with ownership interest, ensuring regulatory compliance, holding annual meetings with the public, and collecting fines and fees for applicable marijuana funds.

After the new act became effective, responsibilities for the medical program transferred into one overarching agency that started as the Bureau of Marijuana Regulation and became the Marijuana Regulatory Agency (MRA). Under EO 2019-07, Governor Gretchen Whitmer in 2019 sought to “combine previous authorities, functions, and duties into a modernized process which [allowed] for LARA to more efficiently regulate medical marijuana and apply this expertise to recreational marijuana as well.” MRA oversees aspects of both programs but still operates under separate pieces of legislation. MRA administers licenses for both programs and enforces compliance. While MMFLA established the licensing structure utilized in the Michigan Regulation and Taxation of Marihuana Act (MRTMA), licensed establishments operating in the adult-use market are allowed to cultivate more plants than medical establishments.

Like other states, Michigan limited who could apply for adult-use licenses for the first two years of the program. Only individuals licensed under the medical marijuana program were able to obtain licenses as Class B Marijuana Grower, Class C Marijuana Grower, Marijuana Retailer, and Marijuana Processor. All Michigan residents were able to apply for a marijuana microbusiness or a Class A Marijuana Grower license. A decision was recently made to eliminate these restrictions as of March 2021. Michigan also chose to allow vertical integration within the state and has not issued regulations imposing caps on licenses. However, localities have the authority to enact more restrictive regulations within the current statutes and can limit the number of licenses or completely ban adult-use marijuana businesses within their jurisdiction.

Michigan was the first Midwest state to enact full adult-use legalization, shortly followed by Illinois. Michigan’s adult-use retail sales began in December 2019. Although Michigan’s adult-use market is in its early phases, the state has generated $37.8 million in average monthly sales as of September 2020 with sales rising from about $25 million in December 2019 to a little over $46 million in September 2020. Experts predict the market to expand to over $1.5 billion by the year 2023. Retail adoption across the state has maintained a slow pace with localities being reluctant to embrace the new industry. As of September 2020, Michigan had 179 adult-use and 291 medical retailers in operation, which translates roughly into 1.8 adult-use and 2.9 medical dispensaries per 100,000 residents.

C. Nevada

In 2000, Nevada voters approved a ballot initiative titled Question 9 to permit medical marijuana usage for qualifying patients. Question 9 was an initiated constitutional amendment, requiring it to be approved by voters in two consecutive elections under state law. In 1998, 58% of voters approved the amendment, followed by 65% approval in 2000. One year later, AB 453 was signed into law, clarifying issues regarding criminal protections and possession limits for registered patients, reducing penalties for individuals found in possession of less than one ounce of marijuana, and creating a statewide medical marijuana patient registry, albeit not a structure for retail establishments.

Oversight for medical marijuana has shifted through the years across multiple government entities. When Question 9 was approved in 2000, the Department of Agriculture (DOA) was responsible for implementation and administrative oversight of the medical program. Since Question 9 failed to enact a medical marijuana retail market, the DOA mainly dealt with enforcing cultivation standards and maintaining the registry. Oversight of the Marijuana Health Registry...
eventually transferred to the Health Division of the Department of Human Services in 2009, while DOA still handled establishing and maintaining quality cultivation standards.

For 13 years, medical patients did not have access to licensed retail establishments, leaving them dependent on their ability to either grow their own cannabis or obtain their medicine from a registered caregiver, who had to comply with the same possession limits as a regular medical patient. Licensed medical cannabis retail establishments were not officially approved until the legislature passed SB 374 in 2013. The law that made counterfeiting a patient’s registry card a felony, also created a regulated system for licensed medical establishments. Certain requirements for applicants included zoning restrictions, property ownership, and evidence the applicant controlled no less than $250,000 in liquid assets to cover startup costs for opening the establishment. The law went into effect in 2014 and medical dispensaries began operating in July 2015.

Unlike medical marijuana, the campaign to legalize adult-use consumption took longer to gain traction with Nevada voters. In 2002, voters rejected a ballot initiative that would have decriminalized marijuana and allowed the use and possession of up to three ounces or less of marijuana. Two more initiatives, one in 2004 and another in 2006, attempted to legalize adult-use marijuana but ultimately failed to get enough signatures to qualify for the ballot, or were rejected by voters. It was not until 2016 when Nevada voters finally approved a ballot measure, Question 2, legalizing adult-use marijuana consumption in Nevada.

In the first 18 months, Nevada only allowed establishments with medical marijuana certificates to apply for adult-use licenses. The medical marijuana and adult-use programs’ license structures are almost identical, the only difference being an adult-use distribution license, which is not required under the medical program. Medical marijuana market establishments are permitted to transfer their product or enter a third-party contract to transfer medical marijuana between establishments.

Aside from licensing, the two programs differ in the amount of taxes individuals pay, the possession limits, and the overarching statutory code governing the programs. Nevada established the tax structure for retail marijuana as follows: 15% excise tax on the wholesale sale paid by the cultivator, 10% excise tax on the retail sale paid by the retail store, and retail sales tax at the local rate, which is paid by cardholders and consumers. Initially, medical marijuana was subject to a 2% excise tax on each sale, but this was changed in 2017 to the 15% wholesale tax. Medical marijuana patients are able to obtain higher-potency products, grow 12 plants compared to six plants for adult-use consumers (but only if they live more than 25 miles away from the nearest dispensary) and possess 2.5 ounces of cannabis compared to the one ounce allowed per recreational consumer. Residences are limited to growing six plants per resident, but no more than 12 plants total.

Nevada’s initial implementation phases had its challenges. For instance, after the initial application period ended and licenses were administered, citizens found out that of the 150 different businesses that applied for a license, only ten companies received approval. Governor Brian Sandoval responded by passing a transparency law that would publicly identify license applicants and the process Nevada uses to evaluate applicants. Nevada also experienced a large quantity of recorded sales in the first six months but did not have enough licensed distributors to meet consumer demand. The Department of Taxation, with support from Governor Sandoval, issued a Statement of Emergency to find out whether Nevada had enough distributors, ultimately finding that the practice of giving distributor licenses only to liquor wholesalers would be insufficient. In response, regulators voted to open the distribution markets up to other businesses that did not operate solely as a liquor wholesaler.

After full adult-use was approved, Nevada officials attempted to combine oversight for the two programs while ensuring that patients, caregivers, and physicians were not neglected. As a result, the retail aspects of Nevada’s medical marijuana program stayed within the Department of Taxation’s control, and the public health related elements and registry remained under the Division of Health. In early 2019 Governor Steve Sisolak issued EO 2019-03, establishing a panel to create an oversight board called the Cannabis Compliance Board (CCB). CCB was eventually integrated into Nevada law via AB 533, along with the Cannabis Advisory Commission.
Nevada’s retail is still in its early phases and is highly constrained to urban areas. As of August 2020, seven out of 16 counties had active recreational retail establishments, and there were 71 adult-use and 66 medical marijuana dispensaries, which translates to approximately 2.3 adult-use and 2.1 medical dispensaries per 100,000 residents. In fiscal year 2019, Nevada recorded $692 million in marijuana sales.

D. Oregon

Long before California’s Proposition 215 legalized medical marijuana in 1996, Oregon became the first state to decriminalize marijuana at the state level. Under the Oregon Decriminalization Bill of 1973, Oregon residents could not be criminally penalized for possessing up to one ounce of marijuana. In 1986, voters attempted to expand these protections and legalize adult-use consumption, but the initiative was rejected by a 48-point margin. By 1998, Oregon voters had approved the Oregon Medical Marijuana Act at the ballot box, effectively legalizing medical marijuana use for adults, albeit without providing a regulated marketplace where patients could legally purchase cannabis products. Two efforts to create a retail system for medical marijuana patients failed at the ballot box in 2004 and 2010. State legislators eventually approved a registry system that established a medical marijuana retail market in 2013. Up to that point, medical patients could only grow a limited number of their own plants or designate a grower who would cultivate the plants on their behalf, a system that many patients said was inadequate to ensure access to sufficient supply.

In 2014, only one year after the establishment of a medical marijuana retail system, Oregon citizens approved Measure 91 and legalized full adult-use of cannabis. A previous attempt in 2012 failed due to concerns about the measure’s poor construction and its lack of limits on possession or cultivation. The first adult-use retail transactions began in 2015 when medical dispensaries were allowed to begin selling to adult-use consumers. The legislature enacted increased regulations for medical dispensaries requiring them to begin tracking the production, processing, and transfer of medical marijuana; additionally, the same law enabled local governing boards to adopt ordinances prohibiting marijuana operations within their jurisdiction. Actual adult-use retail establishments began operating in late 2016.

By 2016, the adult-use law required that the Oregon Liquor Control Commission (OLCC) implement rules for regulating marijuana and to begin accepting applications for adult-use establishments. OLCC also expanded access to supply for dispensaries after the enactment of HB 4014. Medical marijuana licensees could now transfer medical marijuana into the recreational market if licensed with OLCC, and adult-use retailers could produce, process, transfer, or sell marijuana to medical cardholders, processors, and dispensaries. However, adult-use consumers could not purchase edibles and prefilled vaporized cartridges if they came from a medical dispensary.

The legislature has remained active in amending the medical and adult-use programs since retail began. In 2016, legislation expanded access for individuals considered 100% disabled, and OMMP cardholders no longer had to pay a tax when purchasing medicine. Over time, Oregon’s medical program began to dwindle as establishments and patients siphoned off into the recreational market. Since recreational retail began in 2016, Oregon has seen a near disappearance of medical only dispensaries. Similarly, the number of registered medical marijuana cardholders has decreased by approximately 53,000, to about a third of the size of the program in 2015. In an attempt to mitigate the losses for medical establishments, legislators approved a bill that would allow medical establishments to transfer 20 pounds into the recreational market annually. In addition, the bill created the Oregon Cannabis Commission (OCC) which was tasked with creating a new framework for governance of the medical program by the end of 2017. OCC would also begin providing additional regulatory advice to the Oregon Health Authority (OHA).

The recreational program has also undergone changes, mainly related to licensed establishments. The legislature passed laws regulating how retailers collect and maintain consumer data. Consumers were afforded more privacy protections, and retailers were required to dispose of any information that identified the consumer, unless the information was willingly offered by the consumer. The legislature also reduced criminal penalties for some offenses, and increased penalties for other offenses, such as a penalty for possessing 16 times the legal limit of recreational...
marijuana. In 2018, the legislature passed SB 1544, an omnibus bill that impacted law enforcement, taxation, and licensees. SB 1544 created the Illegal Marijuana Market Enforcement Grant Program to assist local governments with detecting and prosecuting individuals engaged in diversion and illegal operations. The bill also increased the number of cardholders that designated growers can supply from four to eight. SB 1544 altered numerous provisions within the Medical Marijuana Act and required OHA to establish a maximum quantity of immature plants a cardholder may possess. It also exempted cardholders from standard packaging and labeling requirements, in addition to exempting two-person grow sites from the tracking system.

Lastly, Oregon’s permissive regulatory framework for licensees has created an oversupply problem in the state. According to a study published by OLCC in early 2019, Oregon marijuana producers were producing at a rate double what citizens were consuming. While the accuracy of these figures has been contested by government officials, the legislature adopted SB 218, which stopped the allocation of licenses for growers, including applicants who were awaiting approval when SB 218 was passed. The provision is scheduled to sunset in January 2022. Over the years, demand for retail marijuana has steadily increased, with the state reporting $725.8 million of sales in the 2019 fiscal year. Oregon has 668 adult-use and 3 medical marijuana dispensaries in operation, which translates approximately into 15.8 dispensaries per 100,000 residents.
1. The majority of states that have legalized cannabis plants with high levels of THC for medicinal or recreational purposes have used the word “marijuana” in their legislative language. Throughout this report, we will be using the word marijuana and cannabis interchangeably when referring to THC producing cannabis plants to be consistent with terminology used by states. This report does not discuss non-THC producing cannabis plant, also known as hemp.

2. The research team made every effort to collect accurate and up to date information for every state as presented in this report. However, given the complexity and constant change in state marijuana regulations, we welcome clarification of any regulation or state information that might not be completely accurate. Additionally, the report was finalized in October 2020, any changes in state regulations after this point will not be reflected.

3. A fifth selected state, Washington, did not respond to our requests for interviews.


35 McAlliste


41 Ibid


45 410 ILCS 705/) Cannabis Regulation and Tax Act allows for existing medical marijuana dispensary license holders to apply for a provisional license under the adult-use regime, as well as an application for a secondary site. Thus, the total number of adult-use dispensaries is higher than the 75 specified in Sec. 15-25.


47 General Law - Part I, Title XV, Chapter 94G, Section 16: Limitations on Number of Licenses, The 191st General Court of the Commonwealth of Massachusetts, accessed October 08, 2020, https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXV/Chapter94G/Section16


A brief snapshot of Colorado in 2018 shows marijuana revenue making up less than 1% of the FY 2018-19 total budget. (“Budget in Brief, Fiscal Year 2018-19,” Colorado’s Joint Budget Committee, 2018) Oregon marijuana revenue for the 2019-2021 biennium budget is estimated to make up less than half of 1% of the total budget. (“2019-21 Legislatively Adopted Budget General Fund/Lottery Funds – Summary,” Oregon Legislative Fiscal Office, July 2019).

For instance, as of 2017, the City of Aurora, CO, was setting aside $1.5 million of the city's marijuana revenue to provide services for the homeless. $900,000 had already been spent renovating an old police department for the homeless to use for sleeping and other basic services. (Marie Solis, “Aurora, Colorado Is Giving $1.5 Million of Its Weed Tax Dollars to the Homeless,” Business Insider, May 13, 2016, & Thomas Mitchell, “Aurora Opens New Rec Center Funded by Marijuana Taxes,” Westword, February 25, 2020.)

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“Stores,” Colorado Department of Revenue, accessed on October 21, 2020, https://docs.google.com/spreadsheets/d/1PqYThJwGEsrWVcu9xVosuC0BzAw4YtD03RviSKzE/edit#gid=0


Calculated from monthly reports issued by Michigan’s Marijuana Regulatory Agency from December 2019 to September 2020. All reports can be found on MRA’s website at https://www.michigan.gov/mra/0,9306,7-386-93032-497635--,00.html


Noelle Crombie, “Medical marijuana retail outlet bill passes Oregon House; now heads to Senate,” The Oregonian, June 24, 2013.


“Senate Bill 1524, Enrolled,” 78th Oregon Legislative Assembly - 2016 Regular Session, accessed on October 21, 2020, https://olis.leg.state.or.us/liz/2016R1/Measures/Overview/SB1524


172 “Senate Bill, Enrolled,” 80th Oregon Legislative Assembly - 2019 Regular Session, accessed on October 21, 2020 https://olis.leg.state.or.us/liz/2019R1/Measures/Overview/SB218
