

**REPORT OF THE SECRETARIES OF
AGRICULTURE AND FORESTRY, FINANCE,
HEALTH AND HUMAN RESOURCES, AND PUBLIC
SAFETY AND HOMELAND SECURITY**

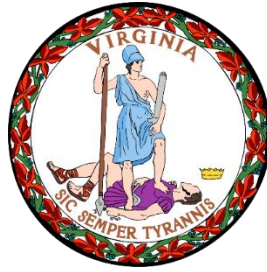
**Impact on the Commonwealth
of Legalizing the Sale and
Personal Use of Marijuana
(Chapter 1285, 2020)**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



HOUSE DOCUMENT NO. 11

**COMMONWEALTH OF VIRGINIA
RICHMOND
2020**



Report to the Virginia General Assembly and Governor of Virginia

Impact on the Commonwealth of Legalizing the Sale and Personal Use of Marijuana

As required by Chapters 1285 & 1286, 2020 Acts of Assembly

November 30, 2020

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Acknowledgements

The Secretaries would like to thank the members of the Marijuana Legalization Work Group for their vigorous engagement throughout this process. Virginia is fortunate to have knowledgeable policy advocates and experts working on this important issue. Furthermore, this report would not have been possible without the input and expertise of the numerous guest speakers that joined the work group in its meetings.

Thank you to Aaron Puritz in the Governor's office for providing technical support and helping to run virtual meetings. Thank you to the Virginia Department of Agriculture and Consumer Services (VDACS) for allowing the use of its virtual meeting software for the group's subgroup meetings.

Additionally, the team would like to thank the secretariat and agency staff that supported these efforts in planning meetings, doing research, and assisting with the drafting of minutes and this final report. Specifically, thank you to staff at VDACS, the Virginia Alcoholic Beverage Control (ABC) Authority, the Department of Taxation, the Virginia Economic Development Partnership (VEDP), the Department of Criminal Justice Services (DCJS), the Department of Behavioral Health and Developmental Services (DBHDS), and the Virginia Foundation for Healthy Youth.

Chapter 1: Recommendations

The following is a list of consensus policy recommendations that emerged from the discussion of the Marijuana Legalization Work Group.

Regulatory Structure – Virginia should consider either putting its cannabis regulatory structure under one agency or umbrella structure to cover both adult-use and medical marijuana. There was also discussion about including regulation of industrial hemp and/or hemp-derived products intended for human consumption under this agency. It was pointed out to the group that other states either regulate hemp cultivation via their department of agriculture or let the U.S. Department of Agriculture (USDA) regulate it. There was some agreement that there is additional oversight needed on hemp-derived products from a consumer safety standpoint.

Industry Structure – Virginia should consider allowing but not requiring vertical integration within the industry.

Licensing Structure – Virginia should consider a license structure that includes various steps of the industry supply chain. This structure may include grower, processor, distributor/transporter, wholesaler, retailer, delivery, and social consumption/hospitality. Virginia should consider a social equity license category as other states, such as Illinois and Massachusetts have done. Virginia should be very thoughtful about how to set up this license structure and should consider what will work best for businesses and be the easiest to understand. Virginia should consider a measured approach for the number of licenses in each category at first and evaluate the program on an annual basis. License fees should not be an insurmountable barrier to entry, especially with social equity licenses, but Virginia should consider what license fees would cover versus what a cannabis-specific excise tax would cover. Virginia should consider the best way to have transparency in the licensing process.

Taxation – Virginia should consider taxation of product at the retail level. The cannabis primary regulatory agency would likely be best positioned to collect this tax. Taxation could include different levels based on the type of product. A tax rate should be high enough to cover costs of the program to provide consumers with certainty that products are regulated and safe (e.g. free from adulterants) to consume and to cover any other revenue goals Virginia has. However, the tax rate should not be so high that it encourages a thriving illicit market.

Other Regulatory Structural Considerations – Virginia should build a robust agency structure with various functions to regulate a new legal adult-use marijuana industry. Virginia should look to other agencies, such as the Board of Pharmacy and Alcoholic Beverage Control, for guidance on how to best organize. Virginia should create regulatory authority for the agency to establish a program and appropriate funding, as opposed to developing the program based on tax revenue and fees. The group recognized that up-front funding and established positions will be critical to start a program before license fees and tax revenues materialize. Virginia could consider a Cannabis Cabinet of agencies or Secretariats mandated to come together on a regular basis for updates and

to address challenges of program start-up and alleviate the potential “red tape” that could be experienced bringing multiple state agencies together working with different regulatory authorities.

Banking – The group recognized that banking is a critical component of having a successful industry, from the standpoints of both access to capital and banking services. Virginia should explore options to allow the marijuana industry to conduct business with financial institutions, including state-chartered banks and credit unions.

Social Equity – Virginia should consider that undoing the harms of criminalization should include expungement or sealing of criminal records, creation and issuance of social equity licenses, assistance with access to capital and business planning, consideration of how the entire regulatory scheme could affect barriers to entry into the industry, and community reinvestment and monitoring with a disparity report.

Local Control – When possible, local input should be considered regarding where marijuana retailers and social consumption sites can operate. Virginia should also consider how businesses could cluster in certain areas or neighborhoods and potential externalities of zoning for these businesses.

Product Regulation – Virginia should consider regulating the composition of products including, in addition to cannabinoid limits, limits for serving sizes and whole products. This could include product composition safety measures, such as pesticide residues and other adulterants. Virginia could also include packaging requirements, such as requiring packages to be tamper evident, with a way for consumers to verify they are consuming a legal and regulated product and educating consumers on using those codes.

Personal Cultivation – Some states allow personal cultivation, and there are substantial pros and cons regarding this policy decision. Virginia should consider that this product is much more valuable than other controlled products, such as beer, that are allowed to be produced in home settings. There is also an element of personal danger and risk because of the electrical and insulation needs for indoor growing.

Impaired Driving – There is not yet a simple, straightforward answer on how to deal with impaired driving. Some states use per se limits, and some use other methods to determine impairment. Virginia should continue to explore new technologies and methods in this space. Virginia could also work to collect more robust data about marijuana-related impaired driving on the roads of the Commonwealth.

Impairment and Employment – Virginia should consider the rights of both employers and employees when crafting policy around being impaired at work. Workplace safety is paramount, but Virginia should consider how policies could affect adults who are using a legal product.

Health Impacts - There is a lack of consensus on how marijuana legalization has impacted public health and public safety in other states. Additionally, information on the health benefits and risks of marijuana use is emerging. Virginia could begin collecting baseline data before the legal market opens, and invest in both data collection and research.

Consumer Education and Product Safety – This is critical for preventing harms and encouraging responsible use. Virginia could require child-proof, tamper-evident packaging, include single serving packages whenever possible, as well as child-resistant packaging for multi-use products, and require consumer education at point of sale that includes clear and standardized packaging, inserts, signage, QR codes, and required training for retail associates. Using the medical cannabis program as a framework, Virginia could require third-party lab testing and consider a state reference lab. To the extent possible, Virginia should track movement into the licit market and diversion through a robust seed-to-sale system.

THC Levels – High amounts of THC may make individuals more susceptible to substance use disorder and individuals should have a clear understanding of THC amounts. Virginia could adopt per-dose/per-serving/per-package THC limits, as well as per-sale limits, being mindful of practical consideration for certain products. Virginia could strongly consider a tiered tax system, similar to Illinois, to disincentive use of high potency products, but potency “caps” may result in higher levels of unhealthy additives in certain products. The Commonwealth should ensure regulations are inclusive of all primary cannabinoids (including both THC-9 and THC-8).

Cannabis Use Disorder – This is a real public health issue, and legalization will likely increase and change the demand for substance use disorder treatment in the long term. Virginia should assess marijuana-related services in the current behavioral health safety net project and prepare for the impact of legalization. Tax revenue should be used to invest in substance use disorder treatment and recovery services. This could include focusing on behavioral health treatment programs for justice-involved population, investing in Virginia Medicaid’s Addiction and Recovery Treatment Services (ARTS) and the community services boards (CSBs), and supporting training for SUD identification and intervention for touch points (e.g. counselors, primary care physicians).

Youth Impacts – Early initiation of use increases the likelihood of problem use, so Virginia should focus on addressing youth impacts. Virginia could require mandatory ID checks and increase youth-focused prevention efforts, both in communities and schools. Virginia could also build off current behavioral health SOL requirement and include age-appropriate marijuana education, invest in supports and education for individuals aged 21-26, as they are more vulnerable to both use and abuse (due to life stage and their developing brain). Virginia could limit proximity of marijuana retailers to schools and other youth-focused places and minimize marketing to youth. One common standard is that audiences of billboards, social media, etc. must reasonably be expected to be 71% adults. Virginia could require that products and their packaging not be attractive to youth and that advertisements must be a certain distance (e.g. 1,000 feet) from schools and community centers.

Prevention and Education – Virginia could implement public health campaigns to highlight negative implications, and this should include awareness that anyone could be at-risk for substance use disorder and risks for those with certain mental health conditions and those that are pregnant or breastfeeding. This could also address workplace and driving impairments and interactions with other medications. Virginia could invest in education that includes youth but should also include healthcare professionals and seniors. Virginia could also invest in holistic community supports and coalitions that address both economic supports and social determinants of health. Virginia should regularly review and update information given emerging research.

Health Equity – Reform should address and, where possible, undo harms of criminalization. This could include ensuring the benefits of legalization are equitable and including density caps or similar mechanisms to avoid an over concentration of dispensaries in low-income neighborhoods, recognizing that wealthier communities are better equipped to navigate zoning and other rules. Virginia should consider the impact on evictions when setting policies, especially for those in government housing. Social consumption sites could provide everyone with a legal place to consume marijuana. Virginia could target investments to those who are experiencing the inequities of past criminalization of marijuana, and this should include community stakeholder engagement, including minority institutions. Virginia could invest in diversion programs and services for justice-involved population, especially upon re-entry, and monitor police activity data to be aware of disproportionate enforcement.

Clean Indoor Air Act – Virginia should maintain its Indoor Clean Air Policy. Marijuana laws should be consistent with Virginia’s Indoor Clean Air policies for tobacco and similarly to tobacco, it should identify distances from buildings and include signage for designated areas for use.

Chapter 2: Executive Summary

Since 2012, states across the nation have begun legalizing adult-use marijuana for sale and personal use. Colorado and Washington State took the first leap into this policy area through statewide ballot referendums. Since then, 15 total states across the Northeast, Midwest, and West have also decided, via both ballot initiatives and legislative action, to legalize the substance, which remains illegal at the federal level. If Virginia was to legalize marijuana, it would be the first state in the South to do so.

The purpose of this report is not to recommend to either the Governor or the General Assembly whether or not the Commonwealth should take legislative action to legalize marijuana. Rather, this report seeks to outline important areas of consideration should Virginia pass legislation legalizing the substance. This report was mandated in Chapters 1285 and 1286 of the 2020 Acts of Assembly as an enactment clause in the legislation that decriminalized possession of small amounts of marijuana (HB972 & SB2). Furthermore, that clause required the creation of a work group comprised of relevant stakeholders to explore these ideas in depth. This work group met 15 times, including subgroup meetings, between July and October 2020 to hear from policy experts, health professionals, community leaders, and government officials from across the nation, including from states that have already legalized marijuana. This report is a reflection of the consensus, stakeholder-driven process by which this work group conducted its task.

Chapter 4 of this report is an overview of how other states have approached the question of marijuana legalization and the legal and regulatory frameworks they set up to control its sale and use. Every state has different approaches to each of the associated policy questions, but in some areas, such as legal age for purchase, a national consensus standard has emerged. Virginia has an opportunity to learn from and build upon all of these states that have already implemented programs. All of these states have faced substantial challenges, and if Virginia is intentional and allocates adequate resources, it can seek to minimize these challenges as much as possible.

The next chapter of the report provides an overview of Virginia's existing cannabis programs and recent marijuana policy changes, including the industrial hemp program, medical marijuana pharmaceutical processor program, and the 2020 law that decriminalized possession of small amounts of marijuana. This chapter also discusses what the potential goals of a legal adult-use marijuana program could be and how those goals might influence particular policy directions. These goals include protecting public health, ensuring social and racial equity, raising revenue, and ensuring the success of existing cannabis programs.

Chapter 6 covers the feasibility of legalizing marijuana for sale and personal use in Virginia. Setting up an adequate regulatory structure will require a significant upfront investment, in time, patience, and budgetary resources. This chapter includes a section regarding the potential regulatory, structural, and staffing needs of a state agency responsible for overseeing marijuana. This chapter also includes the estimated cost of setting up and maintaining this structure and

fulfilling its regulatory goals. A program as complex as this cannot be created quickly; it is in Virginia's best interest to move at a thoughtful pace.

One topic of particular interest to the Commonwealth is the potential impact of marijuana legalization on Virginia's economy and state revenue. Chapter 7 includes fiscal analyses and concludes that there is significant opportunity for Virginia. For example, a legal adult-use marijuana industry could be worth \$698 million to \$1.2 billion annually in economic activity and up to \$274 million in tax revenues per year at industry maturation. However, there are two caveats. First, this analysis relies on a number of assumptions, many of which could change once Virginia actually moves forward with a legalization program. Additionally, it will likely take at least five years for the industry itself to mature, which adds greater uncertainty. This chapter also discusses options regarding how the product itself might be taxed. These decisions will impact the growth of the industry and the amount of revenues the Commonwealth collects.

Chapter 8 focuses on the legal and regulatory framework Virginia would need to implement to successfully legalize the sale and personal use of marijuana. This chapter covers the potential structure of the industry and options for licensing programs for marijuana businesses. Importantly, this chapter discusses the opportunity for Virginia to establish a social equity program with a goal of undoing the past harms of criminalization on communities of color and other people who have been negatively impacted by marijuana prohibition. Furthermore, this chapter contains policy options on regulatory topics such as product composition, packaging and labeling, advertising, personal cultivation, and impairment. Finally, a section covers various criminal code changes that Virginia will need to consider with any potential marijuana legalization legislative effort. Overall, thoughtful deliberation will be required on each of these topics and many others as policymakers move forward.

Chapter 9 is dedicated to the review of the potential health impacts of marijuana legalization. Overall, there are scant data to demonstrate a scientific consensus of how marijuana legalization could impact both individual health and public health. One key recommendation of this report is to collect targeted data regarding public health and safety matters, such as poison control calls, emergency room visits, driving impairment, youth use rate, and treatment data by drug. This will allow Virginia to accurately analyze the impact of legalization and the efficacy of public health and safety efforts. Efforts such as consumer education, youth access prevention, and behavioral health programs, such as substance use disorder prevention, treatment, and recovery, are all important. Policymakers should consider allocating some of the revenue the state collects from marijuana sales to these programs. Finally, ensuring the success of public health tools like Virginia's Indoor Clean Air Act should continue to be a priority.

Overall, this report provides a blueprint for thinking about marijuana legalization in Virginia, should policymakers choose to pursue legislation. This report rarely makes specific recommendations. However, it does lay out options for officials to consider as they move forward in this area.

Chapter 3: Virginia Marijuana Legalization Work Group

Section 3.1 – Legal Authority and Charge

Chapters 1285 and 1286 of the 2020 Acts of Assembly, which decriminalized possession of small amounts of marijuana, included a second enactment clause that directed the Secretaries to complete this report. The clause also specified individuals within state government, academia, healthcare, and the community that the Secretaries shall consult with in writing this report. The full enactment clause is as follows:

That the Secretaries of Agriculture and Forestry, Finance, Health and Human Resources, and Public Safety and Homeland Security shall convene a work group to study the impact on the Commonwealth of legalizing the sale and personal use of marijuana. The work group shall consult with the Attorney General of Virginia, the Commissioner of the Department of Taxation, the Commissioner of the Department of Motor Vehicles, the Commissioner of the Virginia Department of Agriculture and Consumer Services, the Executive Director of the Board of Pharmacy, the Director for the Center for Urban and Regional Analysis at the Virginia Commonwealth University L. Douglas Wilder School of Government and Public Affairs, the Virginia State Crime Commission, the Virginia Association of Commonwealth's Attorneys, the Executive Director of Virginia NORML, a representative of the Virginia Alcoholic Beverage Control Authority, a representative of a current manufacturer of medical cannabis in Virginia, a medical professional, a member of a historically disadvantaged community, a representative of a substance abuse organization, and a representative of a community services board. In conducting its study, the work group shall review the legal and regulatory frameworks that have been established in states that have legalized the sale and personal use of marijuana and shall examine the feasibility of legalizing the sale and personal use of marijuana, the potential revenue impact of legalization on the Commonwealth, the legal and regulatory framework necessary to successfully implement legalization in the Commonwealth, and the health effects of marijuana use. The work group shall complete its work and report its recommendations to the General Assembly and the Governor by November 30, 2020.

The Secretaries created a work group consisting of the individuals identified in the legislation and other members of state government necessary to discuss all relevant topics. The charge of this work group was not to determine if the Commonwealth should legalize the sale and personal use of marijuana. Rather, the work group worked to determine how the Commonwealth would implement marijuana legalization.

The Office of Diversity, Equity, and Inclusion provided direct consultation in the forming of the workgroup and best practices for community engagement. Additionally, the Chief Diversity

Officer provided on-going support and consultation throughout the process and in the final drafting of the report.

Section 3.2 – Membership

The enactment language directs the Secretaries to convene a work group and engage with a number of stakeholders, including several state agency heads, advocacy organizations, and representatives of other community interests. Based on these requirements, the Secretaries formed a work group composed of these individuals. Additionally, the Secretaries included members from other relevant state agencies, as they felt necessary to address these topics. Some members attended some or all of the meetings themselves, and some members chose to send designees and other staff to the meetings.

The membership of this work group (including designees) was as follows:

Secretary of Agriculture and Forestry

Bettina Ring, Secretary of Agriculture and Forestry

Designee: Brad Copenhaver

Secretary of Finance

Aubrey Layne, Secretary of Finance

Designees: Joe Flores, June Jennings

Secretary of Health and Human Resources

Daniel Carey, Secretary of Health and Human Resources

Designee: Catie Finley

Secretary of Public Safety and Homeland Security

Brian Moran, Secretary of Public Safety and Homeland Security

Designees: Jae K Davenport, Nicky Zamostny, Jacquelyn Katuin

Attorney General of Virginia

Mark Herring, Attorney General

Designee: Holli Wood

Commissioner of the Department of Taxation

Craig Burns, Tax Commissioner

Designees: Kristin Collins, Joe Mayer

Commissioner of the Department of Motor Vehicles (DMV)

Richard Holcomb, DMV Commissioner

Designees: Sharon Brown, Colby Ferguson, George Bishop, and Camdon Gutshall

Commissioner of the Virginia Department of Agriculture and Consumer Services (VDACS)

Jewel Bronaugh, VDACS Commissioner

Designee: Charles Green

Executive Director of the Board of Pharmacy (BOP)

Caroline Juran, Executive Director of the Board of Pharmacy

Designees: David Brown, Annette Kelley

Director for the Center for Urban and Regional Analysis at the Virginia Commonwealth University (VCU) L. Douglas Wilder School of Government and Public Affairs

Fabrisio Fasulo,¹ VCU Wilder School Director for the Center for Urban and Regional Analysis

Designee: Michael MacKenzie

Virginia State Crime Commission

Kristen Howard, Executive Director, State Crime Commission

Designee: Colin Drabert

Virginia Association of Commonwealth's Attorneys

Nate Green, Williamsburg James City County Commonwealth's Attorney

Executive Director of Virginia NORML

Jenn Michelle Pedini, Executive Director of Virginia NORML

Representative of the Virginia Alcoholic Beverage Control Authority (ABC)

Travis Hill, Virginia ABC Chief Executive Officer

Designees: John Daniel, Katie Crumble

Representative of a current manufacturer of medical cannabis in Virginia

Ngiste Abebe, Director of Public Policy, Columbia Care

Medical professional

Sam Caughron, Charlottesville Wellness Center Family Practice²

Member of a historically disadvantaged community

Michael Carter, Jr., Virginia State University Small Farm Outreach Program & 11th generation farmer

Representative of a substance abuse organization³

Nour Alamiri, Chair of Community Coalitions of Virginia

James Thompson, Virginia Center of Addiction Medicine

Jimmy Christmas, River City Integrative Counseling

Representative of a community services board

Jennifer Faison, Executive Director, Virginia Association of Community Services Boards

Designee: Heather Martinsen

Virginia State Police

Captain Richard Boyd, Virginia State Police

Designee: John Welch

Department of Forensic Science (DFS)

Linda Jackson, DFS Director

Designee: David Barron

¹ After the first meeting, Dr. Fasulo accepted another position within state government. Michael MacKenzie represented the Center for Urban and Regional Analysis for the remainder of the work group

² Dr. Caughron also represented the Medical Society of Virginia

³ The Secretaries included 3 representatives of substance use organizations in order to capture input from the prevention, treatment, and recovery perspectives of substance use disorder

Section 3.3 – Organization and Meetings

The work group was organized into 3 subgroups to explore different categories of policy questions. Each subgroup selected two co-chairs to help lead the meetings and discussion. These subgroups and their co-chairs were:

1. Fiscal and Structural – Jewel Bronaugh and Travis Hill
2. Legal and Regulatory – Jenn Michelle Pedini and Nate Green
3. Health Impacts – Nour Alamiri and Sam Caughron

Over the course of three months, the work group held 3 full group meetings and 12 subgroup meetings, including one joint meeting of the Fiscal and Structural and Legal and Regulatory Subgroups to discuss social equity.

All meetings were conducted as open public meetings and were posted in accordance with § 2.2-3707. In accordance with § 4-0.01 g.1. of the 2020 Appropriations Act and Governor Northam’s Executive Order 51, all meetings of the full work group and its subgroups took place via electronic communication means without a quorum of the public body physically assembled in one location.

Minutes were taken of each meeting and posted on the Commonwealth Calendar, and each meeting was recorded and the videos uploaded to YouTube.⁴

Full Work Group

The meetings of the Full Work Group and guest speakers present at each meeting are below:

- ❖ July 31, 2020
 - Justin Bell, Assistant Attorney General
 - Dave Cotter, Department of Criminal Justice Services
- ❖ September 16, 2020
 - Gillian Schauer, Senior Consultant
 - Norman Birenbaum, State of New York Director of Cannabis Programs and Chairman of the Cannabis Regulators Association
- ❖ October 28, 2020

Fiscal and Structural Subgroup

The meetings of the Fiscal and Structural Subgroup and guest speakers present at each meeting are below:

- ❖ August 17, 2020
- ❖ September 11, 2020
 - Steve Hoffman, Chairman, Massachusetts Cannabis Control Commission

⁴ Minutes from each meeting, along with links to the recorded videos on YouTube, are included as appendices of this report, and relevant presentations and publicly-submitted comments are included as well. This report references these documents throughout.

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- Justin Nordhorn, Chief of Enforcement, Washington State Liquor and Cannabis Board
- Charles Green, Deputy Commissioner, VDACS
- ❖ October 15, 2020
 - Caroline Juran, Executive Director, Virginia Board of Pharmacy
 - Travis Hill, CEO, Virginia ABC
- ❖ October 26, 2020

Legal and Regulatory Subgroup

The meetings of the Legal and Regulatory Subgroup and guest speakers present at each meeting are below:

- ❖ August 17, 2020
- ❖ September 14, 2020
 - Sheba Williams, Founder and Executive Director, NoLef Turns
 - Vickie Williams, Chair, Decriminalize Virginia
- ❖ October 21, 2020
 - George Bishop, Deputy Commissioner, Virginia DMV

Health Impacts Subgroup

The meetings of the Health Impacts Subgroup and guest speakers present at each meeting are below:

- ❖ August 19, 2020
- ❖ September 14, 2020
 - Nancy Haans, Executive Director, Prevention Council of Roanoke
 - Tom Bannard, VCU Program Coordinator, Rams in Recovery (Collegiate Recovery Program at VCU)
 - Dr. Dustin Sulak, Owner and Medical Director, Integr8 Health
 - Dr. Peter Breslin, Board Certified Psychiatrist/Board Certified Addiction Medicine
- ❖ October 14, 2020
- ❖ October 20, 2020
 - Dr. Natalie Hartenbaum, President at CEO at Occumedix

Joint Subgroup on Equity

For one meeting, the Fiscal and Structural Subgroup and Legal and Regulatory Subgroup convened jointly to discuss social and economic equity. Details of that meeting and its guest speakers are below:

- ❖ October 20, 2020
 - Toi Hutchinson, Illinois Cannabis Regulation Oversight Officer
 - Amber Littlejohn, Executive Director, Minority Cannabis Business Association

Chapter 4: Legal and Regulatory Frameworks in Other States

As of November 2020, ten states have established legal sale of marijuana for adult-use. Those states are (in chronological order based on date of legalization): Colorado, Washington, Alaska, Oregon, California, Maine, Massachusetts, Nevada, Michigan, and Illinois. Five other states and the District of Columbia have legalized sale, but have not yet established legal, regulated markets. Vermont legalized possession and personal cultivation in 2018, recently legalized sales, and expects to start issuing licenses in October 2022.⁵ In November 2020, four additional states – New Jersey, Arizona, Montana, and South Dakota – legalized marijuana for adult-use. This summary covers the 10 states that currently have legal and regulatory frameworks for marijuana sale for adult use.⁶

Section 4.1: Regulatory Schemes and Oversight

All 10 states have set up a standard commercial model.⁷ In this model, production, distribution, and sale are handled in the private market, and are subject to laws and regulations. Other potential options states have considered include a state-run monopoly and a non-profit model.

Three states established a Marijuana Regulatory Agency or Commission. Three states placed the regulatory authority under existing Liquor/Alcohol/Beverage Control Boards, and three states placed it under the Department of Revenue/Taxation/Finance. California divided the authority among several agencies (consumer affairs, public health, and agriculture).⁸

Most state marijuana programs are led either by a small Board/Commission or an Executive Director, which are often appointed by the Governor. Advisory committees and boards vary in terms of size and authority, including whether or not they have rule-making powers. Many committees have designated seats for individuals with certain professional backgrounds. Examples include financial experts, community-based mental health providers, criminal defense attorneys, social equity applicants, public health experts, medical cannabis industry representatives, civil rights activists, addiction specialists, and labor organizations. Almost all states have moved medical cannabis licensees under the adult-use regulatory body. However, the department of health sometimes retains maintenance of the patient and practitioner registry for the medical cannabis program. State departments of agriculture regulate hemp unless the product is intended for human consumption, and then it is typically regulated by the agency that regulates food and dietary supplements.

⁵ (Lopez, 2020)

⁶ (Fuller, 2020)

⁷ See appendix 2

⁸ See appendix 2

Table 4.1: State Regulatory Oversight

	Agency Responsible for Adult-use Marijuana	Does the agency also regulate medical cannabis licensees?	Leadership of Regulatory Body	Advisory Board Structure
Illinois	Department of Financial and Professional Regulations (IDFPR)	Yes	Cannabis Regulation Oversight Officer, appointed by the Governor	Dept of Public Health Convenes Adult-use Health Advisory Committee, with 30 members appointed by the Governor, designated backgrounds
Massachusetts	Standalone, Independent	Yes	5 Commissioners jointly appointed by the Governor, Attorney General, Treasurer, designated backgrounds	Advisory Board with 25 members jointly appointed by the Governor, Attorney General, and Treasurer to fill designated backgrounds, rule-making powers
Washington	Washington State Liquor & Cannabis Control Board	Yes	3-member Control Board appointed by the Governor	Advisory Councils with industry stakeholders
California	Divided among 3 agencies (consumer affairs, public health, agriculture)	Yes	3 authorities each have own leadership (e.g. Executive Director)	Cannabis Advisory Committee with designated backgrounds
Maine	Department of Administrative and Financial Services	Yes	Director	15-member Marijuana Advisory Committee, designated seats from the legislative and executive branches and members of the public appointed by the Senate President and Speaker of the House
Oregon	Oregon Liquor Control Board	No, Oregon Health Authority licenses medical marijuana cardholders and dispensaries	7 Commissioners, appointed by the Governor, at least one from each congressional district	Yes, advisory role
Michigan	Marijuana Regulatory Agency (standalone agency)	Yes	Executive Director appointed by the Governor with advice and consent of the senate	Exec Director may convene as necessary, advisory role

Colorado	Colorado Department of Revenue, Marijuana Enforcement Division (MED)	Yes	State Licensing Authority, also serves as the Executive Director of the Dept of Revenue (appt'd by the Governor, serves in the Governor's Cabinet) – MED Director has specific delegated authority	N/A
Nevada	Cannabis Compliance Board	Yes	5 Board Members appointed by the Governor, designated backgrounds	12-member Cannabis Advisory Commission appointed by the Governor, designated seats, rule-making recommendations, license distribution, study emerging technologies, and any matters submitted by the Board
Alaska	Alcohol & Marijuana Control Office, Dept of Commerce, Community & Economic Development	Alaska has no Medical Marijuana designations	5-member board, designated backgrounds	Yes, with rulemaking powers. The seat are designated to come from industry (2), Public Safety (1), the general public (1), and Health (1).

Section 4.2: Tax Structure

Excise taxes, taxes levied on specific products, vary from state to state. Excise tax rates on marijuana range from 10-15% in Maine, Massachusetts, Michigan, and Nevada to 37% in Washington. Most states collect these taxes at the retail level, with some also taxing the wholesale product when it is sold from the cultivator/processor to the retailer. Alaska is the only state with retail-level excise tax. The most common tax is ad valorem (price-based) and the second most common is weight-based. Localities in some states can levy an additional tax (see local control section).

Illinois is the only state with a tiered tax based on THC content in order to disincentive use of high potency products. They levy a 10% retail tax for products with less than 35% THC, a 25% tax rate for products with more than 35% THC, and a 20% tax rate for cannabis-infused products (including edibles). There is also a 7% gross sales tax on sales from cultivators to dispensaries.

Section 4.3: Possession Limits

Most states with legalized adult-use marijuana have a possession limit of one ounce of flower, which is equivalent to approximately seven or eight grams of concentrate. The District of Columbia allows two ounces, Maine and Michigan allow 2.5 ounces, and Oregon allows 8 ounces.

Possession limits typically align with purchase limits, or the amount that can be bought in one exchange at a marijuana retailer. In addition to possession limits, some states also limit the amounts of purchased marijuana that can be kept at one time. For example, Massachusetts allows no more 10 ounces of marijuana in the home and requires anything more than one ounce to be locked away. Michigan and Oregon limit the in-home amount to 10 ounces and 8 ounces, respectively.

Adult-use is limited to individuals over 21. Many states have fines for 18-20 year olds, which may match alcohol possession penalties. Minors are usually subject to drug education/screening or community service.

Table 4.2: State Possession Limits

	Possession Limits
Colorado	Equivalent of 1 oz marijuana
Washington	1 oz usable (the harvested flowers or “bud”), 7 g concentrate, 16 oz or edibles in solid form, 72 oz in liquid form
Oregon	1 oz usable in public, 8 oz usable at home, 1g extract , 16oz of products in a solid form, 72oz of products in a liquid form
Alaska	1 ounce of dried marijuana.
California	28.5g flower, 8g concentrate
Nevada	Purchase limits are 1 ounce of marijuana or 1/8 of an ounce of concentrated cannabis per transaction. Possession limits are 1 ounce for adult-use consumers
Maine	2.5 oz any product, including no more than 5g concentrate
Massachusetts	1 oz 1. One ounce of Marijuana flower shall be equivalent to five grams of active tetrahydrocannabinol (THC) in Marijuana concentrate including, but not limited to, Tinctures. 2. One ounce of Marijuana flower shall be equivalent to five hundred milligrams of active tetrahydrocannabinol (THC) in Edibles. 3. Topicals and ointments shall not be subject to a limitation
Michigan	2.5 oz, 15g concentrate
Illinois	30g flower, 5g concentrate (different for non-Illinois residents)

Section 4.4: Product Regulations

Washington and California have edible restrictions and only allow shelf-stable products. Some states also limit the THC that can be in each serving and per package, often to 5mg or 10mg for edibles:

Table 4.3: State Product Limitations

	Maximum THC per dose/serving (specify which one)	Maximum THC per package/product (specify)
Colorado	10mg per serving	100mg per package
Washington	10mg per serving of a marijuana-infused product	100mg for edibles, 1 g for concentrate
Oregon	5mg per serving for edibles	50mg per package for edibles
Alaska	Edibles can have no more than 5 mg per serving	Units with multiple servings must not exceed more than 10 single serve units.

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California	10mg per serving for edibles and orally dissolving edibles (see definitions in 17 CCR §40100)	100mg for edibles and orally dissolving edibles, 1,000mg for concentrates, 1,000mg for topicals (see definitions in 17 CCR §40100)
Nevada	Cannabis sold as -- a capsule, not more than 100 mg per capsule or more than 800 mg per package. -- a tincture, not more than 800 mg --as an edible cannabis product, not more than 10mg per serving or 100 mg per product --a topical product, a concentration of not more than 6 percent THC per serving or more than 800 mg per package --a suppository or transdermal patch, not more than 100 mg per suppository or transdermal patch or more than 800 mg of THC per package. --For any other cannabis product, not more than 800 mg of THC.	See the per serving column Edibles that can't clearly demark each serving shall be limited to not more than 10 mg per unit of sale
Maine	10mg per serving for edibles	100mg per package for edibles
Massachusetts	5mg for an Edible Marijuana Product (also see table 4.2)	not more than 20 servings or 100mg (also see table 4.2)
Michigan	10mg per serving for edibles, 10mg per serving for capsules and tinctures, 10mg for all other products except topicals	100mg per container for edibles, 200mg per container for capsules and tinctures, 100mg for all other products except topicals
Illinois	10mg per serving	100mg per cannabis-infused product (edibles, tinctures)

Section 4.5: Personal Cultivation

Eight states allow personal cultivation. Most allow up to six plants (three flowering) and others allow four (OR), two (VT), and twelve (MI). Two states do not allow personal cultivation for adult-use products (WA & IL).

Table 4.4: Personal Cultivation⁹

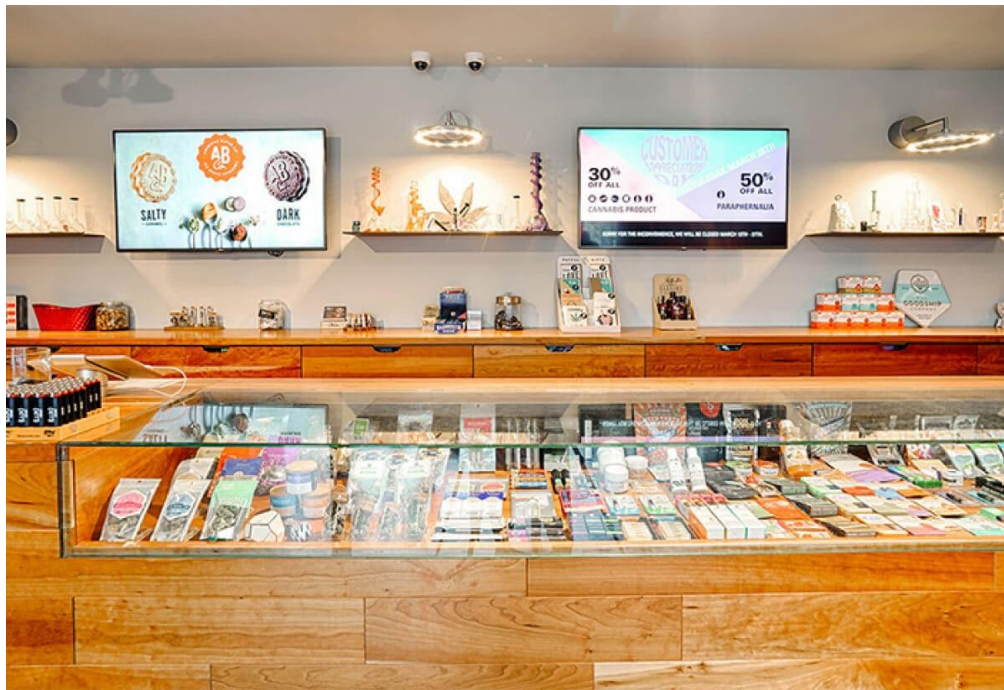
	Personal Cultivation Permitted?	Number of Plants Permitted
Alaska	Yes	6 (no more than 3 mature plants)
California	Yes	6
Colorado	Yes	6

⁹ (NORML, 2020b)

District of Columbia	Yes	6
Illinois	Only for registered medical cannabis patients	5
Maine	Yes	3
Massachusetts	Yes	6
Michigan	Yes	12
Nevada	Yes	6
Oregon	Yes	4
Vermont	Yes	2 (and up to 4 immature plants)
Washington	No	0

Section 4.6: Retail Sites and Advertising

All states prohibit tobacco and alcohol from being sold at the same location as marijuana. All states have zoning requirements that set a minimum distance from locations that may attract children, typically at 500-1000 feet with local authority to adjust them. The vast majority of states have mandatory ID checks, and Washington State does unannounced compliance checks.



A marijuana retail store in Seattle, Washington (Source-Lux Pot Shop Ballard)

No states require broad training for retail associates. However, Washington requires specific training for retail associates to discuss medical implications, and Colorado provides incentives for retail associates that attend a training program. States typically allow co-located medical cannabis and adult-use products, though they may be separated on different sides of the same store.

No states allow marketing to youth, but they differ in what qualifies as marketing to youth. Most states have a requirement that an advertisement can only be placed in a medium where 71.6% of the population can reasonably be expected to be over 21. Massachusetts sets that threshold at 85%.

Most states do not allow advertising within 1,000 feet from child- or community-related locations. Some states expand that 1,000-foot requirement to additional locations, such as substance use treatment centers, hospitals, and college campuses.

No states allow advertisements to include false statement or claims about health benefits and therapeutic effects. Most states do not permit advertisements on public property, including transportation stops. Some states have limits around retail store signs, require warnings in advertisements, and have billboard restrictions. Some TV, radio, print, and internet advertisements are allowed (with audience restrictions). While most states do not employ all of these, other state approaches to limiting advertising include:

- Requiring specific warnings in ads,
- Requiring license number of establishment on ads,
- Prohibiting giveaways or promotional events,
- Prohibiting unsolicited advertising or “pop-ups,”
- Limiting signs per retail establishment,
- Prohibiting depiction of consumption,
- Restricting billboards,
- Prohibiting neon signs after dark,
- Prohibiting ads on certain merchandise (e.g. apparel and electronics),
- Prohibiting ads on vehicles,
- Prohibiting use of the name or logo of the state marijuana enforcement agency,
- Prohibiting ads at sports/entertainment events where those under 21 are present,
- Prohibiting depiction of a leaf image.

Section 4.7: Packaging & Labeling

Packaging and labeling is critical for consumer safety on those using the products, as well keeping them away from children. Labels include the primary cannabinoid content (e.g. THC, CBD). Restrictions in other states include:

- All states have requirements that packaging and labeling must not appeal to children.
- Many states require child-resistant, tamper-evident packaging, as well as re-sealable packaging for multi-use products.
- Many states require opaque packaging.
- Seven states have a universal symbol, to ensure individuals are clear that there is THC in the packaging regardless of literacy level or language spoken.
- One state has pre-approval for all edible products packaging and labeling, to ensure they are in compliance with regulations.

The vast majority of states also have specific warnings that must be on products. At least one state has a rotating warning schedule, to avoid having a sea of small text. Required warning context includes:

Topics on Warning Labels in Adult-use States¹⁰

	Keep away from children	Pregnancy/breastfeeding	Delayed intoxication	Driving/machinery/impairing	Addictive/dependence risk	General health risks	Unlawful outside of state	Smoking is hazardous
AK	X	X		X	X	X		
CA	X	X	X	X		X		
CO	X	X	X	X		X	X	
IL								
MA	X	X	X	X		X		
ME	X	X		X		X		
MI	X			X				
NV	X		X		X		X	
OR	X			X				
WA	X		X	X	X		X	X

Section 4.8: Testing, Additives, and Contaminants

No state allows any nicotine or alcohol additives in cannabis products. All states conduct some level of testing that includes cannabinoid content and residual solvents. Most states test for microbials and pesticides. Several states test for heavy metals, mold/yeast, mycotoxins, and foreign matter in cannabis products.

All states are working to license third party labs. Colorado and Nevada are setting up reference labs, which help to identify anomalous labs or lab shopping.

Section 4.9: Licensing Types & Caps

All states have licensing types for producers/cultivators, processors/manufacturers, and retailers. Typical license types also include distribution and testing labs. Some states divide their producer/cultivator licenses into sub-categories based on the number of plants or square footage at the facility. Some states have additional license types, including:

- Four states allow have social consumption licenses, though where they are available varies. For example, Colorado allows hospitality establishments and Michigan allows businesses to have designated areas or temporary event licenses.
- Five states allow delivery licenses.

¹⁰ See appendix 2 – Minutes and Materials of September 16th Meeting

- Massachusetts has a “craft cooperative” license.

“Vertical integration” means individuals may hold multiple types of licenses and participate in multiple parts of the supply chain. For example, a business with all three of the main license types could participate in the industry from seed to sale. All states except Washington allow vertical integration, but no states require it.

States can set a cap on the number of licensees in statute or in regulation. Alternatively, the regulatory authority can manage the number of licenses based on supply and demand, or can leave that management up to localities.

Table 4.5: State Licensing Limits

State	Limits on Number of Wholesalers (Growers/Producers/Processors)	Limits on Number of Retail Stores/Dispensaries
Colorado	Not limited, localities can set	Not limited, localities can set
Washington	Not limited	Not accepting new applications, increased from 334 to 556 in 2016
Oregon	No cap. Temporary moratorium on new producer applications, sunsets January 2022.	No cap
Alaska	Not limited, localities can set	Not limited, localities can set
California	Not limited, localities can set	Not limited, localities can set
Nevada	Not limited. The State is tasked with doing a supply and demand analysis to determine the need for additional licenses. Businesses may only apply during open application periods	Limited to 132 (voter-approved), localities can set
Maine	Not limited, localities can set	Not limited, localities can set
Massachusetts	Limits for each applicant	No overall cap, no more than three retail licenses per individual/entity
Michigan	Not limited, localities can set	Not limited, localities can set
Illinois	Max 30 cultivation center licenses, 100 craft growers	500 (issued in set waves)

*At one point, Oregon legislature did put a “pause” on licensees due to oversupply issues.

Section 4.10: Local Control & Zoning

All states allow some level of local control, with most states allowing localities to opt out of having a marketplace.

Table 4.6: Local Control

	Can the locality opt out of sales?	Does the locality have a role in licensing?	Can the locality levy an additional excise tax?	Can the locality impose time, place, manner restrictions?	Can the locality prohibit possession and use in your home?
Illinois	Yes	Approval for on-site consumption, cannot establish own licensing structures	Yes, up to approximately 6% (e.g. up to 3% for municipalities, 3.5% for unincorporated)	Reasonable zoning requirements for marijuana establishments, includes distance limitations from “sensitive areas” and between cannabis operations	No
Massachusetts	Yes, but must be through referendum if voted for the 2016 legalization ballot measure	Applicant must have “host community agreement”	Up to 3% (fee through host agreement) and 3% retail tax	Yes, includes (but not limited too) signage, reduce 500-ft distance from schools. Local ordinance must allow for conversion of medical to adult-use dispensaries.	No
Washington	Yes, localities can also file an objection after being notified about upcoming establishments, Board must give those “substantial weight”	No	No	May prohibit processors and producers in residential area, may reduce the 1,000-ft distance around schools	No
California	Yes	Yes	Yes (avg of 14%)	Yes, generally given freedom re: ordinances.	No, also cannot prohibit personal cultivation or delivery
Maine	Yes, must opt in for each license type (cultivation, manufacturing, testing and retail sale)	Local authorization required	No (but may impose licensing, permitting fees)	Yes, including land use regulations and licensing requirements. Local entities may refuse to prohibit some or all licensed commercial activities (cultivation, manufacturing, testing and retail sale).	May limit personal cultivation, except that limitations must permit, at a minimum, cultivation of 3 mature marijuana plants per person 21 years of age or older who is domiciled on the property where cultivation occurs

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Oregon	Yes	The local jurisdiction signs a Land Use Compatibility Statement prior to OLCC licensure. Localities can also have a licensing process if they wish.	Yes, up to 3%	Yes, including having a requirement that retail sites may not be within 1,000 feet of one another	No
Michigan	Yes	Social consumption and temporary event licenses require local approval. State licenses may only be issued if the issuance would not violate a local ordinance.	Fee of up to \$5,000, no additional tax	Yes	No, also may not prohibit delivery
Alaska	Yes	Yes, if the state does not provide a license in a timely fashion	Yes	Yes	May prohibit delivery
Colorado	Yes	Yes, need both state and local licenses to operate	Yes	Yes	No, also may not prohibit personal cultivation (but limited number of plants per residence)
Nevada	Yes (zoning and ordinances)	Yes (local licensing is separate from the State)	No	Yes, including advertising	No

Section 4.11: Dedicated Tax Revenue

States use marijuana tax revenue for a variety of purposes including schools, public health, mental health/substance abuse, public safety/traffic safety, research, local governments, basic health/wellness funds, roads, recidivism, and criminal justice.

Table 4.7: Tax Revenue

	Tax Revenue Distribution
Illinois	<p>After reimbursing various agencies for administrative costs related to the program, the tax revenue is distributed by allocating:</p> <ul style="list-style-type: none"> • 35% to the General Revenue Fund, • 25% to the Restoring Our Communities Fund for community reinvestment, • 20% to support mental health and substance abuse services at local health departments, • 10% to the Budget Stabilization Fund (to pay the backlog of unpaid bills), • 8% to the Illinois Law Enforcement Training and Standards Board to create a law enforcement grant program, • 2% to the Drug Treatment Fund to fund public education and awareness
Massachusetts	<p>Massachusetts collects a 20% tax on recreational cannabis, including a 6.25% sales tax, 10.75% excise tax, and optional 3% local tax.</p> <ul style="list-style-type: none"> • Sales tax goes to the state’s general fund, as well as the Massachusetts Bay Transportation Authority and School Building Authority funds. • Excise tax goes into a Marijuana Trust Fund that is maintained by the Cannabis Control Commission (CCC) and is subject to appropriation, with the legislation listing seven non-binding potential uses in addition to funding the Commission’s operating budget.
Washington	<p>The dedicated marijuana account is allocated using a detailed methodology to the:</p> <ul style="list-style-type: none"> • Department of Social and Health Services for prevention and reduction of substance abuse, • Department of Health for marijuana education and public health programming, • State universities for research on short- and long-term effects, • Washington Health Care Authority for community health services, • Superintendent of Public Instruction for drop-out prevention, • General Fund.
California	<p>The state excise taxes on retail and cultivation, as well as certain fines and fees, are deposited into the California Cannabis Tax Fund.</p> <ul style="list-style-type: none"> • The revenues go first to reimburse state agency cannabis regulatory and administrative costs, and then to cannabis and related research. • The remainder is allocated as follows: 60 percent for youth programs related to substance use education, prevention, and treatment; 20 percent for environmental programs; and 20 percent for law enforcement.
Maine	<p>Maine collects an excise tax on commercial cultivation facilities sales and transfers (approximately 21.5% -- by weight for mature marijuana plants, marijuana flower and marijuana trim, by unit for immature plants, seedlings and seeds) and on retail marijuana items (10%) for an overall effective tax rate of approximately 20% on retail sales of marijuana items.</p> <ul style="list-style-type: none"> • 12% of all tax revenues generated by the Adult-use Marijuana Program (excise and sales tax) are deposited in the Adult-use Marijuana Public Health and Safety Fund to support “public health and safety awareness and

	<p>education programs, initiatives, campaigns and activities relation to the sale and use of adult-use marijuana and adult-use marijuana products...” (50%); and,</p> <ul style="list-style-type: none"> • “enhanced law enforcement training programs relating to the sale and use of adult-use marijuana and adult-use marijuana products for local, county and state law enforcement officers...” (50%).
Oregon	<p>Oregon collects a 17% excise tax. The Oregon Marijuana Account has been distributed to the:</p> <ul style="list-style-type: none"> • State School Fund (40%), • State Police (15%), • Behavioral Health Services (20%), • Drug Abuse Prevention and Treatment (5%), • Cities (10%) and Counties (10%) who allow marijuana establishments in their locality.
Michigan	<p>There is an excise tax of 10%, in addition to the state’s 6% sales tax. Revenues in the Marijuana Regulation Fund funds administration of program. After those costs are covered, it is distributed to:</p> <ul style="list-style-type: none"> • FDA approved clinical trials re: medical marijuana (\$20M annually for 2 years), • municipalities (15%) and counties (15%) in proportion to the number of marijuana retails stores and micro-businesses, • K-12 education (35%), • and the Michigan Transportation Fund (35%).
Colorado	<p>Proceeds from the 15% excise tax and 15% special sales tax are distributed through a specified methodology. In FYs 2014-2020 that methodology resulted in:</p> <ul style="list-style-type: none"> • 31.7% to Human Services, • 20.7% to Public Health and Environment, • 16.4% to Education, 15.5% to Local Affairs, • 3.5% to Higher Education, 3.2% to Agriculture, • and less than 3% to Public Safety, law, judicial branch, transportation, office of the governor, healthcare policy and financing, labor and employment, and regulatory agencies.
Nevada	<p>During the first two fiscal years of adult-use sales, revenue from the retail marijuana tax went to the state’s Rainy Day reserve fund, while revenue from the wholesale tax went to the Distributive School Account (DSA) to help fund the state’s public schools. The Rainy Day Fund received \$42.5 million in Fiscal Year 2018, and \$55.2 million in Fiscal Year 2019. The DSA received \$27.5 million in Fiscal Year 2018 and \$43.7 million in Fiscal Year 2019.</p>

Section 4.12: Consumption at work, at home, and in public

Most states allow employers to set their own policies related to marijuana for adult-use. Similarly, many states give landlords authority to prohibit adult use, especially for smoking. As mentioned above, five states allow some type of social consumption site. Aside from those sites, public use

is generally prohibited. Public places can include restaurants, amusement parks, common spaces in apartment buildings, and other businesses.

Table 4.8: Consumption Laws

	Employers	Landlords
Illinois	Can implement cannabis policies (related to smoking, consumption, storage, use)	May prohibit, subject to local ordinances
Massachusetts	No change in existing law	No change in existing law
Washington	May prohibit using or being under the influence, no change in drug testing law	Can implement smoke-free rules
California	Does not change employer rights to a prohibit use	May prohibit (must be on lease)
Maine	Can drug test, can refuse to hire based on marijuana use	Yes, on lease
Oregon	No change in existing law (can require drug testing)	No change in existing law
Michigan	No change in employer rights	May prohibit smoking marijuana
Alaska	May prohibit otherwise regulate	May prohibit or otherwise regulate
Colorado	Employers can test for marijuana and make employment decisions based on the results	May prohibit possession and use of all products
Nevada	Cannot deny employment based on marijuana in a pre-employment drug test, except for safety-sensitive positions (only state to pass such a law)	Can prohibit smoking

Section 4.14: Social Equity Programs

Illinois

The state of Illinois promotes social equity in their marijuana industry regulation, including through a \$20 million low-interest loan program. This program subsidizes the costs associated with entering the licensed marijuana industry for those that qualify as “social equity applicants”. Social equity applications are Illinois residents that meet specific criteria such as, i) living in a disproportionately impacted area, ii) individuals who have been arrested for or convicted of an marijuana-related offense that would qualify for expungement, and iii) individuals with family members who have been arrested for or convicted of marijuana-related offenses.

Disproportionately impacted areas are regions that are economically disadvantaged and have been impacted by high rates of arrest, conviction, and incarceration for marijuana-related offenses. The definition also applies to applicants who have a minimum of 10 employees and more than half meet the criteria. The state awards “points” for retailer applications with plans to engage the community, focus on the environment, and a local community/neighborhood report. Social equity applicants can also qualify for a 50% license application and license purchase fee waiver. Illinois

has paid special attention to achieving equity through ownership and licensure, meaning that their process is designed to ensure the most equitable marketplace through mechanisms such as multiple types of licenses for new entrants and early approval. The state established a grant program to invest in communities that have been most impacted through discriminatory drug policies. The state has also developed an expungement matrix for marijuana-related records with a streamlined process.¹¹

Massachusetts

In Massachusetts, the Cannabis Control Commission provides benefits for disproportionately harmed individuals, for businesses that economically empower disproportionately harmed people, and for minority-owned, women-owned, and veteran-owned businesses through their Social Equity Program. Applicants are eligible based on income level or residency in an area of disproportionate impact for five years. Individuals with marijuana-related convictions, or individuals with certain immediate family members (e.g., spouses, parents) with marijuana related convictions are also eligible. The program provides for the exclusive ability to apply for certain types of licenses, no application fees, and a 50% reduction in annual license fees. There is also expedited review and a requirement that every licensee for a Marijuana Establish positively impact disproportionately harmed people. The Commission publishes data in the form of reports on the participation of marginalized communities in the legal cannabis industry.¹²

Washington

In June of 2020, Washington passed a bill to ensure business opportunities were available to communities disproportionately impacted by the enforcement of marijuana prohibition laws. A certain number of retailer licenses will be reserved for individuals who were impacted by marijuana prohibition and will positively impact the community if a license is issued to them. In addition, a technical assistance grant program has been created with a \$1.1 million in annual appropriation, and grants may be issued to individuals who qualify for the social equity licenses. Additionally, an 18-member task force has been created to advise the Liquor and Cannabis Board (LCB) in developing the program for issuance of up to 34 marijuana retail licenses to qualified social equity applicants.¹³

California

The Cannabis Advisory Committee has created the Sub-Committee on Equity to create and oversee social equity framework and practices. California has robust social equity programs in connection to its legalization of recreational use. California assists municipalities in the provision of loans, grants and technical assistance to cannabis license applicants. Cities such as Los Angeles, San Francisco, and Oakland have created social equity programs that provide low- or no-interest loans to businesses, training on how to run businesses in the cannabis industry, and assistance through the license application process. The state legislature also passed an Expungement Initiative.

¹¹ (Illinois, n.d.)

¹² (Commonwealth of Massachusetts Cannabis Control Commission, 2020)

¹³ (Washington State Liquor and Cannabis Board, 2020)

In Los Angeles, the city identified individuals that have been disproportionately impacted by cannabis criminalization as qualified applicants in their social equity pilot program. This includes individuals who have past cannabis arrests or convictions and those that live in Disproportionately Impacted Areas. The program provides technical and business assistance in navigating the licensing process, fee deferrals and workforce development/job placement.¹⁴

Maine

Social equity provisions were not included in marijuana legalization. However, expungement initiatives are pending.

Oregon

Oregon does not have any statutory provisions regarding social equity. There is a pilot program in Portland, which offers license fee reductions and early assistance reimbursement to small businesses and individuals with prior marijuana convictions.¹⁵

Michigan

A prior conviction solely for a marijuana-related offense does not disqualify an individual from obtaining a marijuana license, unless the offense involved distribution to a minor. The marijuana regulatory agency must develop a plan to encourage industry participation and positively impact communities disproportionately impacted by marijuana prohibition.

Alaska

The work group is unaware of a social equity program in Alaska.

Colorado

The Colorado State Legislature passed a bill in their 2020 Regular Session that creates “social equity” licensees and alters qualifications to include a retail marijuana store licensee and mentorship programs, financial incentives and reductions in application/license fees for applicants who meet the criteria. It also expands the Governor’s power to pardon individuals convicted of possession of up to 2 ounces of marijuana without certificate from any other judicial or correctional entity.¹⁶

Nevada

The work group is unaware of a social equity program in Nevada.

¹⁴ (City of Los Angeles Department of Cannabis Regulation, 2019)

¹⁵ (The City of Portland Oregon, 2020)

¹⁶ (Social Equity Licensees In Regulated Marijuana, 2020)

Chapter 5: Existing Virginia Cannabis Programs and Potential Goals of Legal Adult-use of Marijuana

Section 5.1 – Virginia’s Industrial Hemp Program



Source: Virginia Cooperative Extension/Virginia State University Hemp Research Program

In Virginia, the Virginia Department of Agriculture and Consumer Services (VDACS) regulates industrial hemp cultivation and processing. The federal Agricultural Act of 2014 defined industrial hemp, in part, as *Cannabis sativa L.* with a delta-9 tetrahydrocannabinol (THC) concentration of not more than 0.3 percent and permitted an institution of higher education or a state department of agriculture to grow or cultivate industrial hemp if (i) the industrial hemp was grown or cultivated for purposes of research

conducted under an agricultural pilot program or other agricultural or academic research and (ii) the growing or cultivating of industrial hemp was allowed under the laws of the state in which such institutions of higher education or state department of agriculture is located. The Virginia Industrial Hemp Law (Va. Code § 3.2-4112 et seq.) was enacted by the 2015 Session of the General Assembly and authorized the Commissioner of Agriculture and Consumer Services (Commissioner) to establish and oversee an industrial hemp research program directly managed by public institutions of higher education.

The federal Agricultural Act of 2018 ("2018 Farm Bill"), which was signed in December 2018, included hemp-related provisions that allow for the commercial production of hemp in the U.S. and require the U.S. Department of Agriculture (USDA) to promulgate regulations regarding the production of hemp. The 2018 Farm Bill established a new definition of "hemp" and removed hemp from the definition of "marihuana" in the federal Controlled Substances Act. The new definition of "hemp" retains the restriction upon the THC concentration of a cannabis plant in order for that plant to be "hemp" – hemp shall not have more than 0.3 percent THC on a dry weight basis. The new definition explicitly states that all derivatives, extracts, and cannabinoids of "hemp" are also considered "hemp." This new, broader definition of hemp coupled with the removal of hemp from the federal Controlled Substances Acts' definition of "marihuana" would likely create challenges in assigning the regulation of hemp and hemp products to a state entity responsible for administering an adult-use marijuana program.

The 2018 Farm Bill provides that states desiring primary regulatory authority over the production of hemp submit a hemp production regulation plan, through the state's department of agriculture, for USDA's approval after first consulting with the chief law enforcement officer and the Governor of the state. The 2018 Farm Bill also directs USDA to establish a hemp production regulatory program for farmers who desire to grow hemp in a state that does not have a USDA-approved hemp production regulatory plan.

At least 47 states have enacted legislation to establish hemp production programs or to allow for hemp cultivation research. Most of these states have authorized their respective departments of agriculture to regulate hemp production, while some states have authorized their departments of agriculture to share hemp-related responsibilities with a research university or hemp-specific commission. In response to the 2018 Farm Bill, the 2019 Session of Virginia's General Assembly amended the Virginia Industrial Hemp Law to eliminate the previous research requirement for hemp production and allow for the commercial production of industrial hemp, which, by definition, has a THC concentration no greater than that allowed by federal law. Pursuant to the Virginia Industrial Hemp Law, VDACS issues Industrial Hemp Grower, Processor, and Dealer Registrations, which enable the registrant to possess industrial hemp and provide the registrant with an affirmative defense against a marijuana-related charge in Virginia. The Law directs the Commissioner to monitor compliance with the Law, and VDACS uses a risk-based system to select industrial hemp production fields for sampling and THC testing in order to do so.

The 2018 Farm Bill explicitly states that its hemp provisions do not affect or modify (i) the U.S. Food and Drug Administration's (FDA) authority regarding the federal Food, Drug, and Cosmetic Act (FD&C Act) or the Public Health Service Act or (ii) the authority of the FDA Commissioner and U.S. Secretary of Health and Human Services pursuant to these laws. The most commonly produced hemp product is a hemp-derived extract such as cannabidiol (CBD) oil. While FDA has advised that it is unlawful to introduce food containing added CBD into interstate commerce or to market CBD as or in a dietary supplement, in an effort to address product quality and consumer safety concerns, VDACS's Food Safety Program has established criteria for manufacturers of hemp-derived extracts that are intended for human consumption and standards for any of these extracts distributed in Virginia. Some states have taken a similar approach, with the state's food regulatory authority, which is typically either the department of agriculture or department of health, regulating hemp products intended for human consumption, while some states are waiting for FDA to develop regulations for cannabis-derived products.

Section 5.2 – Virginia's Pharmaceutical Processor Program

In Virginia, the medical cannabis program is regulated by the Board of Pharmacy, one of 13 health regulatory boards within the Department of Health Professions. Virginia entered into the medical cannabis field in 2015 when the Virginia General Assembly created an affirmative defense for the possession of cannabidiol (CBD) oil and tetrahydrocannabinolic acid (THC-A) oil, initially to address the treatment of intractable epilepsy. Legislation passed in 2016, and reenacted in 2017,

authorized the Board of Pharmacy to issue up to five pharmaceutical processor permits, one in each health service area (HSA) established by the Board of Health. A pharmaceutical processor is authorized to cultivate cannabis plants intended only for producing cannabis oil and dispensing such oil products to board-registered patients. As required in Code, the Board of Pharmacy adopted regulations establishing health, safety, and security requirements for pharmaceutical processors. A Request for Applications (RFA) was released in April 2018 to facilitate a competitive selection process for awarding the five pharmaceutical processor permits. Four of the selected entities awarded conditional approval were subsequently issued a pharmaceutical processor permit. Conditional approval for a fifth entity was rescinded in June 2020 and a RFA is currently open for a pharmaceutical processor permit in HSA I. It is anticipated that the Board of Pharmacy will award conditional approval for an entity to be located in HSA I in the first quarter of 2021.

A pharmaceutical processor operates as a vertically integrated program, cultivating cannabis plants indoors, producing cannabis oil in various formulations, and dispensing these drug formulations to registered patients for treatment or to alleviate the symptoms of any diagnosed condition or disease determined by the practitioner to benefit from such use - an expansion of the original intent to treat intractable epilepsy that was enacted into law in 2018. The pharmaceutical processors operate under the supervision of a pharmacist. Prior to dispensing, an independent laboratory must test a sample from each batch for microbiological contaminants, mycotoxins, heavy metals, pesticide chemical residue, and for purposes of conducting an active ingredient analysis. Only those oils that successfully pass laboratory testing can be registered by the Board of Pharmacy and dispensed to patients.

The prohibition for the oils to contain no more than 5% tetrahydrocannabinol, the psychoactive component of the cannabis plant, was removed in the 2020 General Assembly Session. The formulations are required by the Code of Virginia to contain at least five milligrams of CBD or THC-A and no more than 10 milligrams of THC per dose. The term “dose” is not defined. Current examples of cannabis oil product formulations available include: nasal spray, chewable, suppository, topical gel, oral and vaped oils, wax concentrate, and bubble hash concentrate inhalations. The THC/THC-A combined concentration in the inhalant products range from 35% to 82%, while other formulation types range from 0.25% to 3.5%. The CBD/CBDA combined concentration in the inhalant products range from 0.08% to 4.4% while other formulation types range from 0.0% to 1.1%. In addition to dispensing the cannabis oil products that the pharmaceutical processor produces for its own patients, the processor is also permitted to wholesale distribute cannabis oil products to other permitted pharmaceutical processors.

In 2020, legislation legally expanded the number of dispensing sites in the Commonwealth from five to thirty. The legislation authorizes the Board of Pharmacy to issue permits for up to five cannabis dispensing facilities in each HSA that must be owned in part by the pharmaceutical processor located in that HSA. The cannabis dispensing facilities, which are anticipated to become operational in 2021, will not cultivate nor process any cannabis. These facilities may only dispense cannabis oil products to registered patients.

Federally, marijuana is a Schedule I illicit substance. There is no legal ability under State or Federal law to prescribe it. Hence, its derivative, e.g., cannabis oil as defined in the Code of Virginia,

cannot be prescribed. Instead, the Code of Virginia authorizes a practitioner to issue a written certification recommending the use of the oil. The term “practitioner” is defined to mean a licensed doctor of medicine or osteopathic medicine, physician assistant or nurse practitioner. The written certification form, required by Code to be developed by the Supreme Court of Virginia in consultation with the Virginia Board of Medicine, initially provided an affirmative defense for the patient, parent, legal guardian or registered agent to possess cannabis oil as defined in the Code of Virginia. In 2020, the Code was changed to legalize the possession of cannabis oil if the patient, parent, legal guardian, or registered agent maintains a valid written certification and Board of Pharmacy registration. Per the Code of Virginia, the practitioner may issue the written certification to be valid for no more than 12 months from the date of issuance.

To issue a written certification, the practitioner must first hold a current active license with the Virginia Board of Medicine, or in the case of nurse practitioners, a license issued jointly by the Virginia Boards of Nursing and Medicine. The practitioner must also obtain registration from the Virginia Board of Pharmacy. A practitioner issuing a written certification for the use of cannabis oil must evaluate the patient, perform an examination, and make a diagnosis. The practitioner may determine the manner and frequency of patient care and evaluation, which may include the use of telemedicine consistent with federal requirements for the prescribing of Schedules II through V controlled substances. These tasks cannot be delegated to another practitioner. The practitioner must be of the opinion that the potential benefits of cannabis oil outweigh the risks associated with its use. The practitioner must query the patient in the Prescription Monitoring Program, which should include an evaluation of whether the patient has a current written certification issued by another practitioner, because a patient may only possess one unexpired written certification at any time.

Once an individual receives a written certification recommending the use of cannabis oil, the patient and the parent or legal guardian, if applicable, must register with the Board of Pharmacy. The applicant, when applying for registration, must provide a copy of the written certification, along with proof of identity and residency. To legally possess cannabis oil patients must obtain both the written certification and the board registration. These documents must be shown in order to obtain dispensed oils. Patients may not obtain these oils from any location other than a permitted pharmaceutical processor or cannabis dispensing facility, and may receive no more than a ninety-day supply at a time. Patients or their registered agent must currently present the written certification in-person at the pharmaceutical processor or cannabis dispensing facility annually after obtaining a newly issued written certification. Subsequent dispensations may then be delivered to the patient’s residence by a delivery agent of the pharmaceutical processor or cannabis dispensing facility. The allowance for a “registered agent” to obtain the oils on behalf of a patient became effective in 2019, following the passage of emergency regulations on this subject. Prior to 2020, only a patient residing in the Commonwealth was eligible for a patient registration. Legislation passed during the 2020 General Assembly Session expanded eligibility to persons temporarily residing in the Commonwealth.

Section 5.3 – Marijuana Decriminalization

Decriminalization is distinct from legalization in several key ways. States that have decriminalized marijuana typically remove the criminal penalty associated with possession of small amounts of marijuana, but maintain a civil penalty such as a fine. Legalization of marijuana removes criminal and civil penalties and commonly establishes a regulatory system for distribution and use. Decriminalizing simple possession reduces the burden on the criminal justice system and public safety agencies by allowing agencies to focus limited resources on more serious offenses. According to the National Conference of State Legislatures, 27 states and the District of Columbia have decriminalized marijuana as of 2019.

Decriminalization in Virginia

In 2010, Delegate Harvey Morgan introduced the first marijuana decriminalization bill in the Virginia General Assembly.¹⁷ Over the past decade, state legislators have continued to pursue this policy change for multiple reasons, frequently citing racial inequities in the criminal justice system and the rising marijuana arrest rates across the Commonwealth. In 2018, nearly 29,000 Virginians were arrested for marijuana-related charges, up from approximately 20,000 arrests in 2009.¹⁸ Nationally, about 40 percent of all drug arrests are related to marijuana, but in Virginia 60 percent of all drug arrests are marijuana-related.¹⁹

Black Virginians are approximately three times more likely to be arrested for marijuana-related charges than white Virginians.²⁰ This disparity is even greater in certain areas of the Commonwealth. For example, in Arlington County, the marijuana arrest rate for Black individuals is about eight times higher than white people.²¹ Individuals with charges or convictions for simple possession of marijuana often face significant challenges obtaining employment, certain professional certificates or licenses, and housing in addition to other barriers.

A marijuana decriminalization bill passed in the 2020 General Assembly Session. The legislation carried by Delegate Charniele Herring (HB972)²² and Senator Adam Ebbin (SB2)²³ went into effect on July 1, 2020. This law decriminalized marijuana and created a \$25 civil penalty for simple possession. Under the new legislation, a person found to have one ounce of marijuana or less would have a rebuttable presumption that it is for personal use. At this point, it is too early to assess how this law has affected other types of marijuana-related convictions aside for simple possession of marijuana.

¹⁷ (Marijuana; Decriminalizes Simple Possession Thereof, Civil Penalty., 2010)

¹⁸ (Uniform Crime Reporting Section Department of State Police, 2009)

¹⁹ (FBI: UCR, 2017)

²⁰ (Capital News Service, 2017)

²¹ (Capital News Service, 2017)

²² (Marijuana; Definitions, Possession and Consumption, Civil Penalties, Report., 2020)

²³ (Marijuana; Definitions, Possession and Consumption, Civil Penalties, Report., 2019)

Section 5.4 – Potential Goals of Legal Adult-use Marijuana

The work group heard from experts about the importance of considering all of the potential goals associated with legalizing marijuana and creating a regulatory program for adult-use.²⁴ These goals could include protecting public health, undoing the past harms of criminalization, creating opportunities for equitable industry participation, raising tax revenues, or ensuring the continued success of Virginia's existing cannabis programs. It is likely that Virginia would seek to meet a combination of these goals, and any program the Commonwealth creates should reflect these objectives.

For example, a program that seeks primarily to protect public health would need to be more tightly controlled by the Commonwealth. One option would be for the Commonwealth to have a monopoly on the sale of marijuana products. However, this could conflict with another goal of ensuring equitable industry participation. A state-run marijuana industry may also incur some legal risk given marijuana's illegality at the federal level. A program that values public health would likely also include specific standards for products themselves, as well as advertising, packaging and labeling, and the location of establishments. Furthermore, Virginia could consider utilizing newly generated revenue to fund public health efforts, such as education campaigns and behavioral health priorities.

If Virginia places a high priority on undoing the past harms of criminalization and ensuring equitable participation in a new marijuana industry, there are several policy directions that could fulfill these goals. The Commonwealth could continue to build upon the policies included in the 2019 marijuana decriminalization law, which seals certain marijuana-related convictions and seeks to rectify decades of disproportionate harm to communities of color. Virginia could also follow the lead of several other states and create a licensing program that gives strong consideration to social equity objectives. This could include separate license categories and associated license costs, assistance from the Commonwealth in the form of loans, grants, and business-planning expertise. Additionally, Virginia could dedicate certain revenue to community redevelopment efforts in those areas where marijuana prohibition has had disproportionately adverse impacts.

A program that seeks to maximize the amount of tax revenue the Commonwealth collects from marijuana sales would likely concentrate on finding an optimal tax rate for the product while also encouraging growth of the industry itself. While much is still unknown about the price elasticity of demand of marijuana products, the total potential demand for those products, and the possible size of a marijuana sector, the Commonwealth will need to consider how each of those factors could impact the total amount of revenue. This objective could also be considered in tandem with a potential goal of job creation for Virginians and additional economic development. However, each of these could potentially conflict with the public health goals stated above, as a growing marijuana industry will likely have impacts on both consumption rates and rates of behavioral health issues, such as substance use disorder.

²⁴ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

Finally, one additional aim of a legal adult-use marijuana program could be to protect and ensure the continued success of Virginia's existing cannabis programs, which were outlined above. The industrial hemp program has created new opportunities for farmers and other entrepreneurs, and the pharmaceutical processing program has created new treatment options for thousands of Virginians, not to mention that multiple companies have made an already sizable capital investment to grow, process, and sell cannabis-based pharmaceutical products. The Commonwealth would likely need to consider how these programs would potentially be impacted, in terms of both challenges and opportunities, by changes in state laws and regulations regarding cannabis.

Chapter 6: Feasibility of Legalizing the Sale and Personal Use of Marijuana

Section 6.1: Regulatory Structural Considerations

States that have implemented adult-use marijuana programs have considered regulatory systems focused heavily on licensure requirements for individuals or businesses involved in the cannabis industry and robust seed-to-sale track-and-trace systems for cannabis and cannabis products. Oversight of the industry will likely include management of a licensing and credentialing system, ensuring compliance with tax collection and remittance requirements, and administering a system designed to prevent the illegal diversion or inversion of marijuana products.

There are also other important functions that must be addressed in a regulatory framework, including establishing product standards and safety requirements and addressing social equity objectives. In order to accomplish these goals, a comprehensive organizational and regulatory framework is necessary to ensure the effective and equitable oversight of an adult-use marijuana program in Virginia.

The lead regulatory agency must have adequate resources, a strong management structure, and competent technical experts. This agency must be vested with appropriate rulemaking authority to effectively regulate the industry. Additionally, the agency with primary authority to oversee the marijuana industry must also ensure that regulation of marijuana-related businesses and products is integrated into the existing regulatory framework.

States with established adult-use marijuana programs have used a variety of approaches to address the need for regulatory oversight of a state-managed program. Some states have chosen to incorporate marijuana regulatory oversight within a single existing agency, other states have established an entirely new agency or commission to oversee marijuana programs, and a few states handle marijuana regulation by splitting duties between existing agencies. Leaders in other states typically noted the benefits of having the primary regulatory authority in one agency.

Some of the considerations given to the establishment of a new adult-use marijuana program, either regulated by a stand-alone agency or as a new program within an existing agency, include:

- the cost of establishing a program;
- the number and types of positions necessary to establish and effectively administer a program;
- the rulemaking authority vested in the lead regulatory agency, and
- the timeline determined for the program to become operational.

While each state regulating adult-use marijuana uses a unique organizational structure, there are common categories of technical roles necessary to operate the agency or commission. The types of positions include:

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- ❖ Licensing and registration staff
- ❖ Auditing and investigation staff
- ❖ Financial analysts/financial processing
- ❖ Data analysts
- ❖ Software administrators for a seed to sale tracking system and other applications
- ❖ Scientific or laboratory positions
- ❖ Internal support positions – (i.e. Human Resources, Policy, IT, FOIA)
- ❖ Liaison position(s) to coordinate regulatory work with other regulatory agencies

Members of the Virginia Marijuana Legalization Work Group concluded that Virginia should build a robust agency structure to regulate a new legal adult-use marijuana industry. The work group concluded that all functions should be housed within one agency. The group discussed the merits of either creating a stand-alone agency or housing this function within an existing regulatory agency (e.g., ABC).

As a member of the work group, staff from the Virginia Department of Agriculture and Consumer Services (VDACS) solicited information from various states with adult-use marijuana programs in order to explore their organizational structures and to estimate the potential fiscal impact of starting an adult-use marijuana program managed by a state agency. VDACS staff communicated with marijuana regulators in Colorado, Oregon, Nevada, and California regarding the operating structure and budgets associated with their programs.²⁵

In 2012, Colorado voters passed Amendment 64, allowing for adult-use marijuana sales, and, in January of 2014, the first recreational marijuana dispensaries opened in Colorado. The Marijuana Enforcement Division (MED) was established within the Colorado Department of Revenue to be that state's licensing authority and primary regulator of both the adult-use and medical marijuana sectors. The MED appropriation for fiscal year 2020 was approximately \$22.2 million. During a telephone conversation with regulators in Colorado, VDACS staff noted that the Colorado MED has approximately 150 full-time equivalent positions (FTEs) with a large portion of employees in licensing and enforcement. MED also shares certain administrative positions in human resources and budget and some information technology services with the rest of the Department of Revenue, the agency in which MED is housed.

In Oregon, the Oregon Liquor Control Commission (OLCC) administers the state's adult-use marijuana program. Previously, this was solely the alcohol regulatory agency. In Oregon, the medical marijuana program is administered by a different state agency. OLCC reports that its operating budget for the oversight of the recreational marijuana program was \$19 million for the 2017-2019 biennium. This budget covers 59 positions directly related to the marijuana program, including policy, enforcement, licensing, and data analysis positions as well as 10 additional positions for support services within the agency, including procurement, communication, information technology, and financial services.

Nevada, with a much newer marijuana program, has both medical and recreational marijuana regulatory oversight under one program overseen by the Nevada Cannabis Compliance Board

²⁵ See Appendix 5 - Meeting Minutes and Materials (September 11 Fiscal & Structural Meeting)

(CCB). The CCB is a stand-alone entity established by the Nevada legislature in 2019. The CCB currently has approximately 44 FTEs. The program started by overseeing medical marijuana and added 32 FTEs when recreational marijuana oversight was included in the agency's responsibilities. The program had requested an additional 21 FTEs for fiscal year 2021 at the time VDACS staff spoke with CCB representatives. It is important to note that the CCB is approved for 60 FTE's, however, due to COVID-19 and statewide budget constraints, the CCB is maintaining limited staffing. In fiscal year 2020 the CCB generated \$50,219,530 in total revenue. Of this total amount collected, \$39,740,986 went to the Nevada Distributive School Account, \$5,000,000 went to local government grants, and approximately \$5,478,544 was used for program payroll and operations.

In California, regulatory oversight of marijuana is split between multiple agencies. This system appears to be overly complex and potentially confusing for both regulated businesses and the regulatory agencies. The California Department of Food and Agriculture (CDFA) licenses and regulates marijuana cultivation in that state, while the Bureau of Cannabis Control is the lead agency in regulating commercial cannabis licenses for medical and adult-use cannabis. Additionally, the California Department of Public Health's Manufactured Cannabis Safety Branch (MCSB) is one of three state licensing authorities charged with licensing and regulating commercial cannabis activity in California. MCSB is responsible for the regulation of all commercial cannabis manufacturing in California. Members of the Virginia Marijuana Legalization Work Group concluded that splitting primary regulatory oversight between multiple agencies would not be an effective or efficient strategy in Virginia. Again, the work group concluded that the primary marijuana regulatory function in Virginia should be housed within one agency.

In addition to addressing the primary regulatory function, many states interviewed by members of the work group noted the importance of considering existing state agencies and established programs and regulations that will influence the industry. Regulatory agencies in other states consistently mentioned the value of cross-agency collaboration on issues involving product safety, consumer protection, and environmental stewardship. Specifically, these states pointed to the importance of addressing critical issues such as (i) pesticide use on cannabis and testing for pesticide residues and other adulterants in consumer products, (ii) food safety inspections for marijuana-infused food and beverage products, (iii) the certification of weighing and measuring devices used in the industry, (iv) plant pest issues involved with a new crop, and (v) natural resource considerations around water utilization and energy consumption. These are all areas currently regulated by existing state agencies in Virginia. The states interviewed by VDACS staff noted a significant increase in demand for services such as scale certifications, pesticide misuse investigations, and food safety inspections for edibles manufacturers, which were typically not services under the purview of the primary marijuana regulator.

The greatest initial obstacle to implementing an adult-use marijuana program in many states appeared to be the challenges of securing adequate start-up funding for a new program, coupled with an aggressive timeline established for initiating the first retail sales. For example, in Washington and Colorado, the first retail dispensaries were licensed and conducting sales less than 24 months after the legalization of adult-use marijuana.

In Colorado, Amendment 64 passed on November 6, 2012, making Colorado one of the first states to legalize recreational marijuana. At the same time, the state of Washington also passed a recreational marijuana law, Initiative 502 (I-502), similar to Amendment 64.

In May of 2013, Colorado Governor John Hickenlooper signed legislation regarding the regulation of adult-use marijuana. On September 9, 2013, the Colorado Department of Revenue adopted final regulations for recreational marijuana. The regulation covered issues such as licensing fees, inventory tracking, security requirements, waste disposal, packaging, and advertising. On January 1, 2014, adult-use marijuana businesses began selling marijuana for the first time in Colorado.

After passage of I-502 in Washington, the Washington State Liquor and Cannabis Board had a deadline of December 1, 2013, for establishing regulations for the new adult-use marijuana industry. On November 18, 2013, Washington began accepting applications for marijuana business licenses. Adult-use retail sales began in Washington in July 2014.

An aggressive implementation timeline, similar to the ones undertaken by Colorado, Washington, and many other states, would be extremely difficult to accomplish in Virginia given the standard three-step rulemaking process established by the Virginia Administrative Process Act (APA). A compressed timeline would also be difficult to manage if Virginia decided to create an entirely new state agency to handle marijuana oversight. Even consolidating primary regulatory oversight within an existing regulatory agency will pose implementation challenges.

No matter which agency takes primary regulatory responsibility, the work group heard from many different states that Virginia should expect to spend more time setting up a program than originally anticipated, with a general consensus of nothing shorter than 18-24 months being feasible or prudent. Although it would likely not make much difference in the overall establishment timeline, in order to ensure flexibility and provide the ability to adapt to an industry that is quickly growing and changing, Virginia could also consider exempting certain regulatory processes from the APA. However, this will need to be considered alongside all of the Commonwealth's other potential goals for legalization.

Several states interviewed by members of the Virginia Marijuana Legalization Work Group noted start-up challenges related to initial budget appropriations. Many states use revenue generated from licensing fees to fund marijuana oversight. The primary regulatory agency often has the rulemaking authority to set and adjust licensing fees in order to adequately support their operations. Once a program is operational, this system can be self-sustaining. Many states noted, however, that inadequate consideration and resources were provided during the start-up phase of adult-use regulation, prior to adequate revenues being generated by licensing fees. For example, the work group heard from Massachusetts, whose legislature provided no initial funding for its new marijuana regulatory agency, about the difficulties that decision created for the board and staff tasked with creating a new program from scratch.²⁶

One reason other states such as Colorado and Washington were able to quickly implement adult-use marijuana retail sales programs is that these states previously had established medical

²⁶ See Appendix 5 - Meeting Minutes and Materials (September 11 Fiscal & Structural Meeting)

marijuana programs that offered licensing structures, retail location options, and allowances for a variety of marijuana products similar to what was subsequently allowed under their adult-use programs. These states were able to quickly allow certain existing medical marijuana businesses to transition to adult-use businesses.

While Virginia's medical marijuana program is more limited than the medical marijuana programs in many of the states that have already undertaken adult-use legalization, members of the Virginia Marijuana Legalization Work Group were interested in allowing Virginia's existing medical marijuana businesses to be the first to transition into adult-use production and sales. This would serve as a bridge until a new regulatory framework is developed for a fully operational adult-use market and industry. However, the group did not reach consensus on this point, and there should be additional consideration regarding these existing companies' ability to meet the initial demand for legal marijuana products, a key aspect of establishing consumer trust in order to encourage the dissolution of the existing illicit market and the potential for these companies to gain an insurmountable lead in market share before other businesses can become operational. Additionally, the work group discussed an interest in combining regulatory oversight of both the adult-use sector and the medical marijuana sector under the authority of one regulatory agency.

While Virginia may consider establishing a new agency to oversee the marijuana industry, the Virginia General Assembly might consider the cost, time, and operational efficiencies of exploring a regulatory structure that uses the framework of an existing agency to administer marijuana programs. In at least three states, the decision was made to house regulatory authority for cannabis in the already established alcohol control agency of the state. Washington, Oregon, and Alaska all have a combined alcohol and cannabis regulatory agency. In these cases, the states leveraged the licensing structure, expertise, and personnel involved in alcohol regulation to more quickly establish the regulation of cannabis. Having been legalized following the repeal of Prohibition in 1934, alcohol remains a controlled substance subject to extensive licensing and regulatory requirements.

There are potential benefits of incorporating the regulation of cannabis into the Virginia Alcoholic Beverage Control Authority (ABC), the organization responsible for regulation alcohol in the Commonwealth. Currently, ABC has the infrastructure to support a regulatory mission. Fewer additional employees would need to be hired to provide Human Resources, Finance, and Procurement services. ABC's leadership structure is already established and could focus on initiating the regulatory process rather than establishing a new organization. As a regulator, ABC has experience in regulating a controlled substance and working with manufacturers, wholesalers, and retailers – all potential participants in a legal cannabis market. ABC also has a dedicated enforcement division which functions as a regulatory actor with police powers. Just as it does with alcohol, ABC can regulate businesses, provide guidance and regulatory enforcement. Additionally, ABC has law enforcement capabilities at its disposal. ABC currently administers over 19,000 annual licenses that range from small family businesses to large multi-national corporations. It will be important to properly fund the agency to create an effective regulatory program that does not impede other aspects of ABC's mission, if cannabis regulation is also assigned to ABC.

While ABC has extensive experience on licensing and regulatory matters, it would still need support and input from other state agencies with cannabis expertise. It would be reasonable to

anticipate that VDACS would need to continue to be involved from a grower and chemical application perspective. Additionally, involvement from the Virginia Board of Pharmacy, with its experience with the medical marijuana program would be beneficial. These are just two examples of the need for involvement from other state bodies. However, ABC already has experience coordinating efforts with other agencies regarding taxation issues, health matters, and law enforcement in performing its current obligations. Assigning responsibility to a single entity would still involve expertise from a number of other entities to be successful and would likely provide a sustainable model for regulating the cannabis industry.

Section 6.2: Estimated Costs of Implementation

The following “fiscal impact” analysis is based on the potential concept that the Virginia ABC Authority may be tasked with regulating marijuana in the Commonwealth. The Commonwealth could also decide to give authority to a separate new agency, and the additional potential costs associated with that are not reflected here.

The analysis is speculative at best until specific legislation is introduced and considered by the General Assembly and specific “costs” can be associated with a market the General Assembly may choose to authorize.

This analysis is based on experiences from other states and to respond to a report being developed by the Executive Branch as to how best to regulate marijuana in the Commonwealth. It is also based on the real life experiences by ABC in regulating the controlled substance of alcohol in the Commonwealth and the components of regulating that substance that reach beyond the efforts of law enforcement. For instance, this could include education and prevention, a system of providing due process to violators, communicating regulatory interpretations, and other factors incidental to creating a public safety environment to avoid abuse and apply an indiscriminate environment for the proposed activity.

Total Potential Needs – 93 FTEs: \$8,961,000.00

I. Administration and Support: 44 FTEs at \$4,081,000.00

Associate Legal Counsel and Government Relations: 3 Attorneys, 1 Paralegal, and 1 Legislative and Regulatory Specialist

Hearings: 1 Hearing Officer

Cost: \$632,000.00

Licensing: 15 – this would include processing and assisting applicants through the licensing process. Furthermore, these staff would work along with Social Equity Program staff to reach out to communities to educate stakeholders about the program and assist with the licensing process.

Cost: \$1,125,000.00

- Additional training and authority would be given to the licensing unit to investigate and make determinations working closely with the field operations staff. Investigators would assist in reviewing application for concerns around hidden ownership, public safety issues, etc., but the licensing staff would be responsible for collecting and validating application

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materials. Furthermore, the goal of this office would be to establish strong collaborative relationships with license applicants and licensees to help businesses through the various processes and find ways to make the marijuana regulations work for them.

Social Equity Program (does not include potential funding needs for grants, loans, and business planning support): 10 – 1 Director and 9 Program Specialists
Cost: \$959,000.00

Human Resources: 2

Education and Prevention: 2

IT Support: 2

Finance: 2

Procurement: 1

Business Transformation Office/Change: 1 Change Management Analyst and 2 Policy Analysts

Communications: 1

Cost: \$1,365,000.00

II. Bureau of Law Enforcement: 49 FTEs at \$4,880,000.00

Operations: Field staff – sworn and non-sworn, 20 sworn and 20 non-sworn (40). Sworn and non-sworn would work together seamlessly with a strong knowledge base of the licensing, regulatory compliance, and investigations to ensure regulatory compliance.

Cost: \$4,000,000.00 (Includes Limited Equipment and Training Related Costs)

Tax Management: Tax Examiners 5

Cost: \$350,000.00

Compliance Audit: 4

Cost: \$280,000.00

Seed-to-sale tracking and tracing software – this is necessary to prevent diversion of product. Most states have adopted an RFID tag model that tracks products through each stage of the supply chain. Generally, companies that offer this technology contract with the state for the software itself and then sell the RFID tags themselves directly to the licensed businesses.

Cost: \$250,000.00

Conclusion

Once again, this analysis is based on the concept of Virginia ABC assuming primary regulatory authority over a potential marijuana program. One additional option the Commonwealth has to consider is creating a new agency altogether, and this would create some unspecified additional costs. Furthermore, the work group did not discuss potential funding mechanisms to cover the start-up costs for a new agency or division, but Virginia has several options in this regard.

Chapter 7: Potential Revenue Impacts

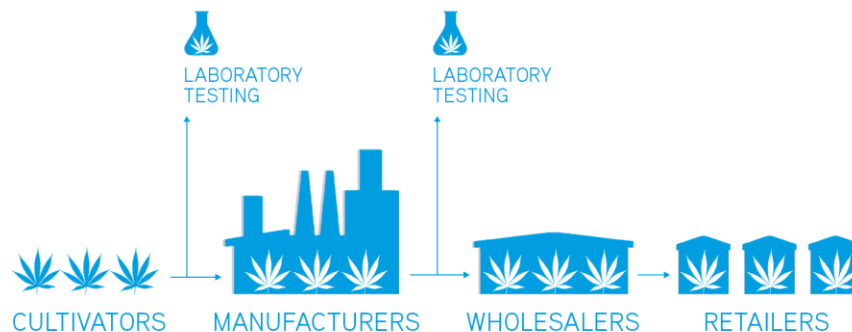
Section 7.1: Economic Impact Estimates

Estimating the economic impact of an industry involves tracing the economic output of that industry backwards through its supply chain and the household spending of associated workers. In an established industry, models utilize input-output tables that describe the flow of sales and purchases between producers and consumers. However, public data on the relatively young and concentrated adult-use marijuana industry is limited to a handful of states as well as private companies. Little public data exists quantifying the supply chain relationships between end consumers, retail establishments, manufacturers, cultivators, and other related industries.

This report utilizes several existing industries as proxies for marijuana-based industries to broadly estimate the possible economic impact of legalizing adult-use of marijuana in Virginia. These proxies function under a different legal framework than an anticipated marijuana industry likely would. Regulatory factors such as vertical and/or horizontal integration, licensing quotas, and taxation structure are not considered in the estimates detailed below, and such factors will influence the economic impact of the industry.

The model described below makes use of similar reports undertaken by the Rockefeller Institute of Government and the Marijuana Policy Group (MPG) to estimate the composition of a hypothetical marijuana workforce. In a 2016 report on the economic impact of marijuana legalization in Colorado, MPG estimated that the direct employment created by marijuana legalization totaled 12,591 FTEs.²⁷ Those FTEs were divided by industry segment:

- Retail operations: 4,407 (35%)
- Administration: 2,770 (22%)
- Manufacturing: 2,015 (16%)
- Management: 1,889 (15%)
- Agriculture: 1,511 (12%)



A potential marijuana industry supply chain (Source: Rockefeller Institute of Government)

²⁷ (Marijuana Policy Group, 2016)

In order to estimate a hypothetical marijuana industry in Virginia, similar industries (using the IMPLAN classification system) are chosen as proxies:

- Retail operations: Miscellaneous store retailers (35%)
- Administration: Office administrative services (22%)
- Manufacturing: (16%)
 - Non-chocolate confectionery manufacturing (8%)
 - Medicinal and botanical manufacturing (8%)
- Management: Management of companies and enterprises (15%)
- Agriculture: Greenhouse, nursery, and floriculture production (12%)

Some of the proxies are natural fits in accordance with 2017 NAICS designations (retail, agriculture, management, and administration). However, the non-chocolate confectionery-manufacturing sector was added to mimic the frequent sales of marijuana-infused edible products in addition to dried flowers and concentrates. MPG's 2016 report proposes an industrial classification within the NAICS for infused marijuana product as part of the non-chocolate and confectionery-manufacturing sector.

The employment distribution was modeled as a proxy to industry output. Industry output is generally utilized as the model input to estimate the number of FTEs supported by a change in that output. However, data on the output of each marijuana-based sector is not readily available. Modeling an employment change of 100 FTEs (converted to IMPLAN Employment) with those FTEs distributed as described above allows us to estimate the economic multiplier²⁸ of such a hypothetical industry at 1.789. This suggests that for \$1.00 in economic output in the marijuana industry in Virginia, another \$0.79 is likely to be generated through indirect effects (suppliers) and induced effects (household spending). For reference, an economic multiplier of 1.789 would be greater than that of breweries in Virginia, at 1.42, and around that of full-service restaurants.

A multiplier of 1.789 would be conservative compared to some estimates of other economies. MPG estimated Colorado's marijuana retailing multiplier at 2.398.²⁹ The Rockefeller Institute of Government estimated a potential adult-use marijuana industry in New York could have a multiplier of 1.885.³⁰

Applying the 1.789 multiplier to the hypothetical markets below, we estimate that the economic impact of an adult-use marijuana market in Virginia ranges from \$698 million to \$1.2 billion.

²⁸ Type SAM multiplier, which is calculated as the sum of direct, indirect, and induced output divided by direct output.

²⁹ (Marijuana Policy Group, 2016)

³⁰ (Schultz, 2019)

Table 7.1: Potential adult-use marijuana sales markets in Virginia

Comparison basis	2017 Sales^[a, b, c]	Monthly users^[d]	Sales per user	Va. Users^[d]	Va. Sales (est.)	Total impact (Sales * 1.789)
Oregon	\$523,000,000	640,000	\$817	477,000	\$389,798,438	\$697,349,405
Colorado	\$1,091,000,000	779,000	\$1,401	477,000	\$668,044,929	\$1,195,132,379
Washington	\$927,000,000	971,000	\$955	477,000	\$455,385,170	\$814,684,069

[a] Oregon Liquor Control Commission. “Marijuana Market Data,” 2020.

<https://www.oregon.gov/olcc/marijuana/Pages/Marijuana-Market-Data.aspx>.

[b] Colorado Department of Revenue. “Marijuana Sales Historical Report, January 2014 to Date,” 2020.

[c] Dab Software. “Washington i502 Marijuana Sales Data.” 502 Data, 2020. <https://502data.com/>.

[d] National Survey on Drug Use and Health, 2017 and 2018. “Table 3. Marijuana Use in the Past Month.” SAMHSA, Center for Behavioral Health Statistics and Quality, 2020.

Virginia sales figures of adult-use marijuana are unlikely to match the hypothetical markets in the first one to three years following legalization. The 2017 annual sales in reference states represent markets that have been established for more than one year. In Colorado, a mature medical cannabis market aided the growth of the adult-use market. Virginia can expect slower growth.

This modeling also fails to account for the necessarily intrastate nature of an adult-use marijuana industry. Due to the legal status of the marijuana industry, most supply chain purchasing would happen within Virginia. Economic models based on existing industries mimic the supply chain purchasing patterns of those industries, some of which likely happens outside of Virginia. When these dollars are spent outside of the Commonwealth, their economic impact happens elsewhere. Greater intrastate trading in the marijuana industry would result in a larger economic multiplier.

Section 7.2: Revenue Estimates

The potential magnitude of revenues from collecting the existing Retail Sales and Use Tax and imposing a retail-level excise tax on marijuana sales can be estimated based on data from other states that have emerging marijuana markets. The estimate in this report begins with adult marijuana sales for Illinois and Michigan. Michigan legalized adult-use marijuana sales effective December 2019 and Illinois legalized such sales effective January 2020. Sales for the first 10 months for Michigan and 9 months for Illinois were used to estimate an average monthly purchase of adult marijuana in each state. The potential number of adults purchasing marijuana in Michigan and Illinois was estimated using each state’s 2019 population estimates. The population figures were then reduced by subtracting out those under the age of 18. The over 18 populations were multiplied by each state’s usage rate provided by the Substance Abuse and Mental Health Data Archive³¹ to estimate the number of potential purchasers of marijuana in each state. The average monthly sales were then divided by the number of potential purchasers to generate an estimate of the monthly sales per purchaser. These estimates for Michigan and Illinois were averaged for an estimated per monthly sales of \$42.37 per potential purchaser.

³¹ (Substance Abuse & Mental Health Data Archive, 2017)

This average monthly sales figure was multiplied by the estimated number of purchasers in Virginia to estimate the monthly Virginia sales. Those estimated sales were used to estimate the revenue from excise taxes at various rates (10%, 15%, 20%, and 25%) and sales tax revenue. Because Virginia’s Retail Sales and Use Tax varies by region and locality, ranging from 5.3% to 7%, the estimate assumes a blended 5.67% Retail Sales and Use Tax rate. Actual sales for Washington and Colorado, which have mature adult marijuana sales markets, were used to produce estimated growth rates for Virginia from year one to year two and beyond.

For illustrative purposes, this estimate assumes an effective date of July 1, 2021. Due to the time necessary to build a regulatory framework, it is likely that the actual effective date of any legislation would be delayed. Any future estimates would need to be adjusted to take into account the effective date of the legislation, as well as the specific regulatory and tax structure proposed in such legislation.

Using this framework, it is estimated that between \$35 million and \$69 million in Retail Sales and Use and retail excise tax revenues could be generated in the initial year that such legislation becomes effective. Such revenues would grow exponentially, reaching a potential range of \$140 million to \$274 million in the fifth year of implementation. See Table 7.2 below for more details.

Table 7.2: Estimated Revenue for the Sale of Adult Marijuana in Virginia at Various Excise Rates Using Data from States with Emerging Marijuana Markets*

Excise Tax Rate	Sales Tax Rate	Year One FY2022**	Year Two FY2023	Year Three FY2024	Year Four FY 2025	Year Five FY2026
10%	5.67%	\$35.4	\$73.1	\$107.3	\$130.1	\$140.1
15%	5.67%	\$46.7	\$96.5	\$141.6	\$171.6	\$184.8
20%	5.67%	\$58.1	\$119.8	\$175.8	\$213.1	\$229.5
25%	5.67%	\$69.4	\$143.1	\$210.1	\$254.6	\$274.3

**Based on Illinois and Michigan; includes both excise and sales tax revenues; amounts in millions*

***11 months of tax receipts*

There are several limitations to this estimate and, therefore, it should be considered a preliminary estimate intended to provide a potential order of magnitude. Limitations include the following:

- There is no consideration of elasticity within the estimate. Accordingly, estimated sales do not decrease when the 10% excise tax rate is increased to 15%, 20%, or 25%. Incorporating assumptions about elasticity would reduce the amount of revenues generated at the higher excise tax rates.
- The estimate does not directly take into account the illegal marijuana market in Virginia. This could impact the revenue estimate to the extent that the illegal market in Virginia would differ significantly from Michigan and Illinois.

- There is no accounting of the portion of sales that would be generated by in-state residents and out-of-state commuters or visitors. This factor could also impact the estimated revenue collections.
- There is no consideration for how robust the Virginia-specific market may be or the magnitude of brand loyalty that purchasers may have. There are also no specific adjustments for pricing differences that may exist between Virginia and the other states.
- The estimate assumes a tax, regulatory, and price structure similar to those in place in Illinois and Michigan. Any differences in the tax or regulatory framework would impact the estimated amount of revenues that would be collected.
- The estimate includes the excise tax and sales and retail tax only. It does not consider wholesale taxes, licensing fees, or any other potential revenue sources from the adult marijuana industry.

If specific legislation is introduced by the General Assembly, Tax Department staff recommend that the specific provisions of the legislation, especially those related to regulatory and tax structure, be carefully considered so that these factors can be incorporated into the revenue analysis to generate a more accurate estimate of revenue collections.

Section 7.3: Tax Structure

The work group discussed several options with regard to how Virginia could structure the taxation of marijuana, and as discussed in the above section, the actual revenue impacts to the Commonwealth would be dependent upon the final tax structure. The work group found consensus on a few different areas relating to a potential tax structure.

First, the group discussed where in the supply chain a potential excise tax should be collected and settled generally on a recommendation that a tax on the product at the retail level would be preferable. This is the option most states have chosen, and it is the method reflected in the above revenue estimate analysis. However, the group also considered that it could be easier and more straightforward for the agency that is collecting the tax to collect it at the wholesale level, as there are likely to be fewer wholesalers of the product than there are retailers. This would mirror Virginia's excise tax on alcohol.

The group also discussed which agency would be best suited to collect a potential excise tax and audit licensees for compliance. Due to the nature of the product itself and the complexities of a brand new industry, a consensus emerged that the agency tasked with regulating the industry would be best positioned to serve this function, rather than the Virginia Department of Taxation. Again, this mirrors Virginia's taxation system for alcohol. Whichever agency has taxation authority will need to fully understand the market, the licensed sellers, and the product mix.

Furthermore, the group discussed exploring a structure which taxes different product types at varying rates to meet certain public health goals, such as decreasing usage of higher potency products. The health impacts subcommittee recommended strongly considering a tiered tax system

based on THC, as Illinois did. Another option to consider would be basing a tax schedule on product category, such as taxing marijuana flower, edible products, and vaped products at different rates. The group did not make a recommendation about what varying rates should be, but it is important to keep in mind that whatever tax structure Virginia decides upon will influence the total amount of possible revenue for the state.

As for the level of an excise tax (or taxes) itself, the group did not recommend a quantitative value. Generally, there was a consensus that the tax rate should be high enough to cover the costs of implementing the state program and to cover any other revenue goals the Commonwealth has. Furthermore, this would demonstrate to consumers that the products themselves are safe (e.g., free from adulterants) to consume. However, the tax rate should not be so high as to encourage an illicit market. As discussed in the preceding section, which provides a range of potential tax rates and associated revenues, there are still many variables and unknown factors related to taxation.

Chapter 8: Necessary Regulatory Framework

Section 8.1: Industry Structure

Legal adult-use marijuana would be a completely new industry in Virginia, so the group spent time discussing the potential structure of this industry. Discussion points included the Commonwealth's involvement in the actual sale of the products and the various pieces of an industry supply chain, including the possibility of vertical integration.



A marijuana retailer in Lynn, Massachusetts (Source: The Boston Globe)

Marijuana is federally illegal, so the Commonwealth would need to ensure that all marijuana commerce remains intrastate. The group discussed how Virginia could regulate the industry to keep all commerce within state lines. Virginia is one of seventeen states that hold a monopoly on the retail sale of liquor, and the work group discussed whether Virginia should develop a similar model for adult-use marijuana.

Experts told the group that state or non-profit organizations serving as the retailer of the product could support certain public health goals, as these entities typically do not have the same profit-

seeking objectives as private industry. A state-run program would allow the Commonwealth to maintain a very controlled industry. Furthermore, holding this type of monopoly would be helpful in tracking exactly where products are sold in order to prevent diversion across state lines. However, having the Commonwealth itself in the business of selling a product that is federally illegal could be problematic. As mentioned in the section about a potential regulatory structure, Virginia could utilize a seed-to-sale tracking system, as other states have done, to prevent diversion. There was also consensus that the Commonwealth should seek to develop a commercial market, attract consumers from the current illicit market, and allow market participation by Virginians, especially those who have been harmed by the past criminalization of the product.

The work group also spent some time discussing the industry supply chain and the possibility of vertical integration. Virginia's current pharmaceutical processor program mostly requires vertical integration, except for some allowance to purchase hemp-derived oil from a registered processor.

The work group recommended that Virginia should allow, but not require vertical integration in the adult-use market. Even though a vertically integrated structure could be more straightforward to regulate, with all cultivating, processing, and retail sales under the same roof, this type of model requires a significant capital investment and would be a large barrier to entry into a new industry.

If Virginia were to prohibit vertical integration, it would limit some firms' ability to utilize that business model to maximize efficiencies. Furthermore, because Virginia already has five vertically integrated companies selling marijuana in the pharmaceutical processor program, the Commonwealth would be forcing those businesses to change their operating model if they chose to also participate in the adult-use market.

Section 8.2: Licensing Structure and Process

Along with the industry structure discussion, the work group also formed some consensus around how the potential licensing structure and process would function in the Commonwealth. If Virginia chooses to allow, but not require vertical integration, a marijuana regulatory agency will need to license several categories of marijuana businesses, including cultivation, processing, distribution and wholesale, retail, and testing. Additional categories the group discussed include delivery, social consumption, and hospitality, which some states are beginning to allow.

This is an area of regulation that could mirror Virginia's existing model for alcoholic beverages to some degree. Businesses would need one or more licenses to participate in relevant sectors of the industry they desire, but the Commonwealth should be careful not to make the license structure too complex, which would be difficult to administer from an agency standpoint and difficult to understand as a business owner. One approach would make each license category as narrow as possible and require a business to hold multiple licenses for each part of the supply chain. For example, a business that seeks to grow, process, and sell the product all under one umbrella would need to hold three separate licenses. Alternatively, Virginia could seek to make each license category as broad as possible with regard to allowable activity. For example, a cultivation license

could also allow for a distribution or wholesale function, allowing the producer the flexibility to get their product to market however they choose.

In this discussion, members expressed concerns about a large number of potential license categories, which would also create administrative difficulty for the agency tasked with regulating the industry.

The group also noted that there should be a separate license process for social equity purposes, and this idea will be discussed further below in the social equity section of this report.

Additionally, the group discussed the licensing process as a whole and formed some consensus around the cost of licensure, the number of available licenses, and the transparency of the process itself. First, the cost to the business owner of both applying for and obtaining a license should not be an insurmountable barrier to entry into the industry. This is particularly relevant for Virginians who are seeking a license under a social equity framework. As discussed in the taxation section, the excise tax and sales tax on the product could cover the cost of running a program, and Virginia would not necessarily need to seek to defray that obligation. While the group did not recommend specific numeric values for these potential costs, they should be congruent with the overall costs of starting a marijuana business and the expected profitability of the business associated with each type of license.

The group agreed on some broad principles regarding the potential number of licenses the state could offer, but there were no specific numbers of licenses identified for each category. However, there was a recognition that because this would be a new industry with many unknown factors, Virginia could begin with a measured approach and limit the number of licenses it issues. On an annual basis, the marijuana regulatory agency could evaluate the program and the market to determine if additional licenses are necessary. The Commonwealth could easily issue new licenses if the market requires them, but it would be very difficult to remove licenses from the marketplace. Additional considerations include distributing licenses in a regional model to prevent one area of Virginia from containing all of the licensed marijuana businesses.

Finally, there was general agreement that the licensing process for this new industry should be straightforward. This would include clear application criteria, a scoring matrix that is made publicly available, and a transparent and timely decision process for license awards.

Section 8.3: Social Equity

Virginia has an opportunity to build upon the work other states have done to create social and racial equity programs as a part of the legalization process. This has three core components: criminal justice reform, access to ownership opportunities, and community reinvestment. These investments are designed to benefit those who have been disproportionately impacted by the enforcement of cannabis prohibition. As mentioned above, according to Virginia State Police data compiled by the Capital News Service, Black Virginians are approximately three times more likely

to be arrested for marijuana-related charges than white Virginians.³² The impacted individuals include those who were incarcerated, as well as the families of those with cannabis arrests and convictions. Individuals without convictions also felt the impacts of over-policing, gun violence, and disinvestment in their communities, schools, and businesses.

Criminal Justice Reform

Criminal justice reform includes ending arrests and convictions, releasing currently incarcerated individuals, and implementing an automatic sealing or expungement process for cannabis-related convictions. Virginia made strides in 2020 by sealing records and not allowing previous cannabis convictions to be used in hiring decisions via SB2/HB972. However, should the General Assembly choose to legalize adult-use of cannabis, it could also consider expungement. This idea is critical for ensuring Virginians do not continue to face barriers to employment, housing, education, and entrepreneurship and will be discussed further in the “Criminal Code Changes” section. Furthermore, Virginia could provide additional assistance for those who have faced negative consequences of criminalization, and this could include re-entry programs, job training, and housing assistance.

Should adult-use cannabis be legalized, juveniles who use or possess the drug should face consequences that discourage future use. The work group discussed treating youth infractions similar to alcohol (misdemeanor conviction) or tobacco (civil fine). The group also discussed the importance of centering a public health perspective when setting consequences, including providing youth health care and behavioral health support.

Access to Ownership Opportunities

Access to ownership opportunities ensures individuals and communities that experienced the worst impacts of prohibition and disproportionate enforcement are able to benefit from the legalized cannabis industry. The work group discussed four key aspects to providing access to business opportunities in a new cannabis industry.

Other states have designed a social equity license status that prioritizes individuals with cannabis convictions, relatives of those with cannabis convictions, and long-time residents of disproportionately impacted areas (DIAs). Applicants who meet the definition are given first access to cultivation, processing, transportation, and retail licenses. In some states, that has meant priority in regulatory approval. In Illinois, one of the most recent adult-use social equity programs to launch, the first 75 licenses are being issued to social equity qualifying applicants.³³

To ensure the application process is accessible, regulators have removed known hurdles to entering the cannabis industry. License applicants are not required to identify real estate, a costly process that can lead to months of rent being paid without guarantee of a business. Application fees are reduced (Virginia’s medical license applications have a fee of \$10,000; by comparison, \$2,500 was used for Illinois’s social equity applicants and even that could be waived).³⁴ Social equity

³² (Capital News Service, 2017)

³³ (Illinois Department of Financial and Professional Regulation, n.d.)

³⁴ (Illinois Department of Financial and Professional Regulation, n.d.)

applicants are also not required to demonstrate cash on hand or personal financial details to prove capitalization.

The work group also heard that a social equity license program should only be one component of ensuring equitable access to marijuana business ownership opportunities. For instance, the group heard from the Massachusetts program that one of the largest hurdles for ownership is equitable access to capital.³⁵ Banks, credit unions, and Community Development Financial Institutions (CDFIs) are largely constrained by federal law from actively participating in the marijuana businesses, and the banking section of this report will discuss this further. However, aside from federal law, these institutions' participation is also limited by their own risk tolerances, which could lead to a disinclination to participate to a large degree, especially with smaller businesses. Virginia should consider working with these institutions to find ways to allow businesses to have equitable access to credit. The work group also discussed considering a state-administered grant or loan program to function in concert with a social equity license structure. This could also include access to professional business planning and management expertise that could be tailored to different types of businesses. For example, agribusiness and farm planning will be different from distribution business planning, which will be different from preparation to start and operate a retail business.

In addition to a preferential license category, access to capital, and sound business planning expertise, social equity applicants need technical support to navigate the license application process. This includes community outreach to ensure individuals know and understand that these programs exist. Applicants must also be provided resources to avoid predatory scams from application writers and exploitative partnerships with larger companies. To implement a successful social equity program, the state will need to expand existing resources for small businesses navigating SCC registration, bank account formation, and other bureaucratic processes. A cannabis regulator could partner with other state and non-profit entities to encourage outreach and participation.

Community Reinvestment

Reinvesting some revenue back into communities that have been disproportionately harmed by criminalization is the third and final pillar of social equity under legalized adult-use cannabis. The work group discussed Illinois's Restore, Reinvest, Renew (R3) program.³⁶ The R3 program is funded by 25% of cannabis tax revenue (projected to be \$31 million for CY2020). The R3 program is overseen by its Chair, Lieutenant Governor Julia Stratton, and a committee of state legislators and impacted community members. The R3 program funds grants for violence prevention, reentry services, youth development, economic development and civil legal aid services in areas of the state that are suffering from violence, and have experienced concentrated disinvestment. These areas are identified by their rates of gun injuries, child poverty, unemployment, and incarceration rates. The fund prioritizes groups that are based in the communities they serve.³⁷ Should Virginia's General Assembly choose to legalize adult-use cannabis, designating funds from marijuana tax

³⁵ See Appendix 5 - Meeting Minutes and Materials (September 11 Fiscal & Structural Meeting)

³⁶ (Illinois Department of Commerce & Economic Opportunity, 2020)

³⁷ (Hayden, 2020)

revenue to reinvest in communities would be a critical component to social equity. Furthermore, regular disparity studies regarding relevant data points in these communities would be essential to analyzing the success of all social and racial equity objectives.

Section 8.4: Product Regulation

The work group had a discussion about the various options about the regulation of marijuana products and coalesced around a set of key principles. First, Virginia should consider regulating the composition and types of legally available marijuana products, both from the standpoint of cannabinoid content and other product safety measures.



An example of a pre-rolled smokeable product (Source: New England Public Media)

Virginia should consider allowing products across different categories. These categories could include but are not limited to: combusted products, edible food and drinks, pills, oils intended for vaping, oil tinctures, and wax. However, as the industry continues to innovate, Virginia should seek to keep its product regulations up to the speed of the industry itself, perhaps through an APA exempt process as discussed in the “Regulatory Structural Considerations” section above. Each product classification will likely need to have different regulations regarding both cannabinoid content and consumer safety.

Many states that have legalized the product have set THC serving size limits for edible products at 5mg or 10 mg of THC and limited the number of servings allowed per unit of product. The group also discussed the need to consider similar limits for vape products based on how those products are consumed. Serving sizes for some modes of use can be challenging to measure consistently. In addition to other states, the Commonwealth could consult with the Department of Health Professions on lessons learned from Virginia’s medical cannabis program.

The group also discussed the need to set consumer safety requirements, similar to food safety standards, for marijuana products. This could include minimum acceptable limits of adulterants, such as pesticide residues, foodborne pathogens, heavy metals, mycotoxins, solvents, and other potential contaminants. Both the hemp derived oils and pharmaceutical processor programs already contain these types of standards, and Virginia could consider merging all of those requirements into standards for cannabis products generally.

The group also heard from public health expert Dr. Gillian Schauer regarding the need to consider other ingredients or constituents that could potentially be present in products. These include

substances such as excipients and diluents, which are particularly relevant for vape products and about which we have relatively little evidence about the potential health effects; one good example of this is Vitamin E acetate, which has been linked to E-cigarette or Vaping Product Use-Associated Lung Injury (EVALI).³⁸

The state would likely also need to consider how to regulate flavorings and any other additives. For example, no state currently allows additives such as nicotine or tobacco to be added to marijuana products.³⁹

One additional consideration is the regulation of terpenes, which are natural botanical aromatic compounds. In marijuana, terpenes are generally responsible for the plant's aroma and flavor compound, however they can also be derived from other plants as well. These compounds can be extracted from the plant and then added to various products, such as oil intended for vaping, to provide consistent flavor profiles. However, there is still much unknown regarding the health effects of these compounds.⁴⁰

In order to successfully regulate marijuana products, the Commonwealth will need to consider requirements for product testing and reporting. An emerging best practice among states has been to require third-party lab testing of all products. Virginia currently has some third party labs, but will need more to meet the increased demand after legalization. Lack of access to testing has been one of the barriers to growth in Virginia's medical cannabis program. However, in order to prevent producers from "shopping" for labs to find desired results, the Commonwealth should also consider establishing a reference laboratory in some form, such as a state-run lab that spot checks products via risk and random sampling, to ensure fidelity.⁴¹

Section 8.5: Advertising

In her presentation to the work group, Dr. Gillian Schauer flagged limitations on advertisements as an area of opportunity for public health. Addiction and recovery experts who presented to the group stressed that information from the cannabis industry sometimes overstates the benefits and understates the harms of marijuana. Approaches other states have taken to limit advertising, while avoiding de facto bans, are listed under Chapter 4. There are also lessons learned from advertising for tobacco and alcohol, and it may be appropriate to take a consistent approach with marijuana. In recent years, limits on tobacco advertising have followed more of a public health framework.⁴² The Commonwealth should also be mindful of free speech protections and relevant legal precedent.

³⁸ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

³⁹ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

⁴⁰ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

⁴¹ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

⁴² Barry RA, Glantz S (2016) A Public Health Framework for Legalized Retail Marijuana Based on the US Experience: Avoiding a New Tobacco Industry. *PLoS Med*13(9):e1002131.doi:10.1371/journal.pmed.100213

The work group focused on limiting marketing to children. The typical standard is that 71.6% of the advertisement's audience must reasonably be expected to be over 21 years old. Massachusetts further limited the audience to no less than 85% adults. Advertisements are typically restricted near schools and other youth-focused buildings, such as parks or libraries. Importantly, advertisements should not be appealing to minors, including limitations on cartoons, the leaf emblem, and bright colors. As with other marketing tools, regulations should be prescriptive to avoid gray area or loopholes.

Section 8.6: Packaging and Labeling

The primary requirements for packaging in other states revolve around avoiding unintentional pediatric consumption. Packages should be child-resistant, tamper-evident, and re-sealable (multi-use). While child-resistant packaging mitigates pediatric exposure, it does not eliminate it. Consumers must also be educated on safe storage and potentially be made aware of the resources of the poison control center in case of an accident.

As the group heard from Norm Birenbaum, Chairman of the Cannabis Regulators Association, stating what a company cannot have on a label leaves a lot of room for what it can have. Companies may then be able to create products that do not meet the spirit of the law. As one example, Washington State decided to update its guidance and create a pre-approval process for every package after finding certain products on the shelves. Despite prohibiting products that are appealing to children, companies had candy look-a-likes with bright colored packaging and bubbles letters.⁴³ Other examples may be found in the presentation slides from the September 16th meeting.⁴⁴

Labels allow consumers to know what is in a product. As described in the health impacts section, marijuana is unique in that its chemical composition differs both product-to-product and plant-to-plant. Some presenters and work group members expressed concern over misuse of high potency products and all work group members agreed that certain additives are harmful. Some products have high THC concentration because they are intended to be consumed in small doses. In addition to concentration, the speed and length of onset varies among products. Clear labels with cannabinoid content and health warnings enable educated consumers to use the product as intended.

Doctors with Cannabis has suggested using a universal symbol and a standard label, similar to what is used for food products. Even with standard labels, there are some challenges with measuring exact cannabinoid content, including THC, especially with botanical products. The "strain" or chemical makeup varies on the same plant, so sample testing is not always precise given that the plant is not homogenous. Some states allow a variance (e.g., 15%) in terms of label accuracy for botanical products, given that challenge.

⁴³ (Groover, 2018)

⁴⁴ See appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)



Canada's universal marijuana symbol (Source: USA Today/Getty Images)

Many states have specific warnings that must be included on packages. For example, Washington State products must note the product: has health risks, should not be used during pregnancy or by minors, can impair judgment and driving, and may be habit forming. Label and warning requirements should be mindful of product shape and size, since some products are very small or round. The amount of text on the label should be legible and clear. Package inserts, QR codes and signage can help communicate important information while avoiding a lot of small text. QR codes are used in some states not only to relay detailed product information but also to verify that the business is a licensed marijuana establishment. Another option is rotating warning schedules, as used in Rhode Island's medical cannabis program.

Section 8.7: Personal Cultivation

Personal cultivation of marijuana, often colloquially referred to as “home-growing,” is permitted in 10 states. These states set a specific number of plants an individual is permitted to grow in their home for personal use. Some states identify a set number of “mature” and “immature” plants whereas others simply provide a maximum number of plants. Illinois only allows home-grows for registered medical cannabis patients. Table 4.4 in section 4.5 of this report details the number of home-grow plants permitted in each state.

Leaders from other states including Colorado and Massachusetts have identified public safety concerns regarding home-grows. Those leaders have shared that there is an increased number of house fires, as a result of the lamps needed to grow the plants and attempts to dry the leaves prior to smoking. There are also reports of increased violent crime, particularly robberies and burglaries, as marijuana is still very valuable in the illicit market.

Washington was one of the first states to legalize marijuana, but does not allow for home-grows or home delivery.⁴⁵ In recent years, the Washington State Liquor and Cannabis Board considered the legalization of home-grows. The Board’s 2017 report identified public safety concerns including (i) increased youth access; (ii) increased illegal growing and illicit market activity, (iii) increased calls for service related to civil issues (e.g., smell), and criminal activity such as burglaries and robberies.⁴⁶ In addition, Washington officials raise concerns about enforcement of plant limits. Officials asked for clarification about what qualifies as a “plant,” what qualifies as a “mature” or “immature” plant. There are also concerns about the number of plants permitted in one home if there are multiple residents cohabiting in a household or apartment building. The Washington Association of Sheriffs and Police Chiefs detailed their concerns in a letter to the Board and endorsed the continued prohibition of recreational home-grows.⁴⁷

Section 8.8: Impaired Driving

Impaired driving is a serious concern related to the decriminalization and legalization of marijuana, and while it is universally agreed that preventing impaired driving is critical, there is not yet a consensus among policymakers nationwide on how to accurately measure whether a driver is impaired. This work group heard from leaders in other states, including Massachusetts, Washington, and Colorado about marijuana legalization and impaired driving. Experts from Virginia’s Department of Motor Vehicles (DMV) and Department of Forensic Science (DFS) also provided information about the potential impact on Virginia. In addition, Virginia was selected to participate in the National Governors Association’s *Learning Collaborative on State Strategies to Strengthen and Leverage Data to Address Impaired Driving* in the fall of 2020. Virginia’s stated goals for the learning collaborative include (1) understanding the impact marijuana decriminalization and legalization has had on impaired driving and traffic-related fatalities in other states, (2) gathering best practices related to toxicology screenings and road side tests for impaired drivers particularly those who use drugs including fentanyl, and (3) building a data collection system to track the impact of marijuana and opioid-related policy changes.

In 2018, in fatal crashes, 94 deceased drivers tested positive for some level of THC. There were over 800 traffic fatalities in 2018, one third of these were alcohol related. In 2019, 90 deceased drivers tested positive for some level of THC,⁴⁸ and there were 827 total traffic fatalities that year.⁴⁹

Data Collection

In general, little is known about the rate of drug-impairment (with the exception of alcohol) among drivers in the U.S.⁵⁰ There have been some reports which indicate marijuana-impaired driving is

⁴⁵ (NORML, n.d.-c)

⁴⁶ (Washington State Liquor and Cannabis Board, 2017)

⁴⁷ (Mitch Barker, 2017)

⁴⁸ See Appendix 10 - Meeting Minutes and Materials (October 21 Legal & Regulatory Meeting)

⁴⁹ (Virginia DMV, 2020)

⁵⁰ (Smith et al., 2019)

on the rise.⁵¹ Given the speed with which many states legalized marijuana, primarily via referendum, it is difficult to understand the impact of marijuana legalization on impaired driving. This is an opportunity for Virginia to assess its existing data collection efforts and fill any gaps in data prior to legalization and truly measure the impact of legalization. While Virginia has worked consistently to reduce the number of impaired drivers on the roads and has seen a decrease in the number of alcohol related fatalities, the shifting landscape of drug-use in the Commonwealth will likely require new data collection capabilities and flexible policies.

Currently, Virginia does not have robust data about drug-impaired driving, particularly when it comes to THC. Crashes or traffic stops that do not involve a fatality often yield little to no data about potential drug use or poly-substance use. During the course of an impaired driving investigation, if the law enforcement officer has reasonable cause to believe, through field sobriety tests, a preliminary breath test, or other information, that the individual was driving under the influence of any drug, the officer may obtain a sample of whole blood through implied consent or via search warrant. A Drug Recognition Expert (DRE), which is a law enforcement officer trained to recognize impairment in drivers under the influence of drugs other than, or in addition to, alcohol,⁵² can be called in to document evidence of signs and symptoms that indicate potential impairment. The testing of collected blood sample(s) can detect THC or other drugs in the blood related to impaired driving. However, blood draws require a medical professional to collect the sample and therefore take longer to complete, giving the drugs time to metabolize further. Furthermore, the detection of THC presence in the blood does not necessarily indicate a person was driving while impaired.

In addition to difficulties with blood draws, it is still challenging to detect poly-substance use in impaired drivers. If a blood sample is taken from a driver, and the BAC is found to be 0.10% by weight by volume or higher, no further testing for the presence of other drugs is completed. Additional toxicology screens and assessments will require more resources.

Detection of impaired driving continues to evolve and change over time. Oral fluid testing, which involves swabbing the inside of the cheek, is becoming a more popular method of testing for impaired driving enforcement.⁵³ Although oral fluid testing can detect THC and/or metabolites for days and even weeks after marijuana use, some states have begun using oral fluid testing on the roadside in pilot programs.

Types of DUI Laws

There is no scientifically accepted method for determining impairment based on an established amount of THC in the blood.⁵⁴ DFS Director, Linda Jackson spoke about this issue with the work group, and noted that the pharmacological activity of THC is vastly different than alcohol, making it more difficult to assess the level of impairment from individual to individual.⁵⁵

⁵¹ (Berning et al., 2015)

⁵² (IACP, n.d.)

⁵³ (Arnold et al., 2019)

⁵⁴ (Smith et al., 2019)

⁵⁵ See Appendix 10 - Meeting Minutes and Materials (October 21 Legal & Regulatory Meeting)

1) Zero Tolerance

Thirteen states have a zero-tolerance policy for THC, meaning any level of THC detected would be considered impaired driving. It is worth noting that one of these states is Michigan, which legalized marijuana but also has a zero-tolerance law for marijuana-impaired driving.⁵⁶ The group determined that this approach would likely not be the most effective, as THC can remain in someone's blood long after the person is no longer impaired.

2) Per Se Standard

Six states have a per se standard for marijuana impairment while driving. In these states drivers can be charged with Driving Under the Influence (DUI) if the level of THC or metabolites in their blood is above the per se threshold.⁵⁷ Nevada and North Dakota have a per se limit of 2 ng/mL. Idaho, Missouri, and Washington have a per se limit of 5ng/ml.⁵⁸ While Colorado has a per se limit of 5ng/mL, it also has a “permissible/reasonable inference” law. Given the scientific limitations related to establishing marijuana impairment, policymakers should recognize per se standards might capture a larger or smaller population of drivers than intended. For example, if the THC limit is set too high, people who are no longer impaired but previously used marijuana may be charged with DUI. Alternatively, if the per se limit is set too low, some drivers that are actually still impaired may not be charged.

3) Impairment Based

Meanwhile, other states use “effect-based” or “level of impairment” laws to capture impaired drivers without using a specific per se standard or zero tolerance policy. In addition, there are emerging technologies that seek to record an initial analysis of potential impairment. An impairment-based approach would likely require an additional investment in training for law enforcement to be DREs and/or an investment in other impairment recognition tools.

Section 8.9: Impairment and Employment

Employers have both an ethical and a legal obligation to ensure a safe working environment for their employees. Marijuana use raises a particular challenge for policymakers, employers, and employees in addressing safety concerns and handling worker's compensation claims. This issue also has implications for employer and employee rights.

It is critical to understand the impact of marijuana consumption on workplace safety. This is particularly important for “safety sensitive” positions in which impairment could pose a threat to the safety of employees or the public. Threats to workplace safety can include the potential for physical injury, environmental contamination, property damage, impaired judgment or decision-making in emergency response situations, the use of firearms, and more. The method of defining safety sensitive positions varies from state to state. In some states the employer makes this categorization, but in others, the state develops general categories.

⁵⁶ (Governors Highway Safety Association, 2020)

⁵⁷ (Governors Highway Safety Association, 2020)

⁵⁸ (Governors Highway Safety Association, 2020)

To effectively evaluate the impact of marijuana on performance and working conditions, it is not sufficient to test for the presence of cannabinoids. A worker's level of impairment must also be measured. As discussed above, the pharmacological activity of marijuana is different than alcohol, making it more challenging to measure the level of impairment from individual to individual. Additionally, drug testing may not pick every type of cannabinoid. For example, current federal drug testing laws allow for testing of delta-9-THC, but not delta-8-THC even though it is intoxicating. Given the lack of reliability of drug testing to determine impairment, it is difficult to fairly define when the use of marijuana may become a threat to workplace safety. In Illinois, employers can adopt reasonable testing policies in order to retain "a reasonable workplace drug policy." They can also take disciplinary action, including termination, if they have a "good faith belief" that the employee is impaired while on duty, based on symptoms that decrease performance such as agility or speech; negligence in operating machinery; disregard for safety; disruption in a production process; or carelessness.⁵⁹

Employer discretion in enforcement of marijuana-related policies might come at the cost of employees who are legally exercising their right to consume marijuana. Thirteen states currently have anti-discrimination protections in place for employees with regard to medical cannabis use. Only one, Nevada, has similar protections for recreational cannabis.⁶⁰ Reducing employment barriers is also a key consideration for workers, including the expungement of cannabis-related convictions.

Defining safety-sensitive positions, and evaluating impairment while simultaneously protecting the employer's legal obligation to maintain a safe working environment and the employee's rights is particularly complicated when it comes to marijuana. A lack of reliable and timely testing capability further complicates the issue. Policies related to cannabis legalization should take into account the employer's role in promoting and maintaining safety as well as worker protections.

Section 8.10: Local Control

While the work group did not include a representative of local government, there was some discussion about the role of Virginia's localities in a potential marijuana industry. Staff outreach also included some engagement with local government representatives.

Work group members agree local input should be considered regarding where marijuana businesses can operate. Localities already have zoning regulations as one available tool to control where certain businesses can operate. Virginia should also consider ways to avoid the clustering of marijuana businesses in a way that is harmful to public health and safety.

Group members believe that the industry could potentially be treated similarly to alcohol. In 2019, Virginia changed its statewide law to make all localities "wet" but allow for a locality to opt-out

⁵⁹ ((410 ILCS 705/10-50) Personal Use of Cannabis, 2019)

⁶⁰ (National Conference of State Legislators, 2019)

via local referendum. This law became effective on July 1, 2020.⁶¹ A similar model could be considered for marijuana businesses.

However the Commonwealth decides to proceed with marijuana legalization, the work group saw great value in continuing to engage with localities, specifically regarding the location of businesses and the creation of potential tax revenues.

Section 8.11: Banking

One of the most critical components of a thriving industry is banking, and several states identified this as a significant challenge.⁶² Legal hurdles require most transactions to take place in cash, make deposits difficult, and also prevent businesses from accessing credit.

Because marijuana remains a federally illegal product, multiple federal laws and regulations prevent financial institutions from fully participating in the industry in states where the substance is legal. According to the American Bankers Association, “all proceeds generated by a cannabis-related business operating in compliance with state law are unlawful, and that any attempt to conduct a financial transaction with that money (including simply accepting a deposit), can be considered money-laundering. All banks, whether state or federally chartered, are subject to federal anti-money laundering laws.”⁶³

A law under consideration in the United States Congress would fix many of the current hurdles to financial institutions participation in the cannabis industry. The Secure and Fair Enforcement (SAFE) Banking Act of 2019, which passed the House of Representatives in September 2019 with broad, bipartisan support, would allow financial institutions to provide services to cannabis-related legitimate businesses, as long as they are operating in accordance with state law.⁶⁴

Some states have found creative solutions to give financial institutions within their borders the level of comfort they need to participate, in a relatively limited manner, in the industry, and Virginia should consider all options to facilitate further engagement between financial institutions and a legal adult-use marijuana industry.

Section 8.12: Criminal Code Changes

If the Virginia General Assembly moves forward with the legalization of marijuana there will be implications for the criminal code. For example, unlicensed production and sale of marijuana, sale to a minor, or personal cultivation over a certain limit could all become criminal offenses. Additionally, the General Assembly will need to determine the penalty for underage use of marijuana. The legislature could also address impaired driving differently for marijuana and

⁶¹ See Chapters 37 and 178 of 2019 Acts of Assembly

⁶² Appendices 2 and 5 (Minutes from Fiscal-Structural meeting 1 and Full work group meeting 2)

⁶³ (Bergen, 2020)

⁶⁴ (Bergen, 2020)

change the current Driving Under the Influence of Drugs (DUID) statute to include a per se or zero tolerance standard.

Sealing and Expungement

As the General Assembly contemplates the legalization of marijuana, it is critical to consider the disproportionate harm done to communities of color across the Commonwealth. Expungement or sealing of marijuana-related convictions would help support social and racial equity initiatives.

In Virginia, individuals may petition the court to get their records expunged under certain circumstances. For example, cases that are dismissed, acquitted, or entered nolle prosequi are eligible for expungement. Records may also be expunged in the case of an absolute pardon or writ of actual innocence. Juvenile records are an exception; juvenile records involving misdemeanors and status offenses are automatically expunged when the juvenile turns 19 and five years have elapsed since the last hearing in the case, including cases where the juvenile was adjudicated delinquent. In general, felony records for juveniles are not expunged but may be sealed.

Expungement and record sealing are two distinct processes. In Virginia, expunged records are never actually physically destroyed (e.g., paper records); however, access to expunged records is only permitted pursuant to court order. Meanwhile, record sealing prevents individuals from accessing the record in the Central Criminal Records Exchange (CCRE) system. In the regular 2020 session, HB972 and SB2 included language to automatically seal existing simple possession of marijuana convictions. Seventeen states, including Virginia offer some form of expungement or record sealing for past marijuana convictions.⁶⁵

Should the General Assembly legalize possession and sale of marijuana, legislators may consider sealing other types of marijuana-related offenses including crimes such as possession with intent to distribute. Sealing can be done automatically and is more cost effective than expungement in this case.

⁶⁵ (NORML, 2020a)

Chapter 9: Health Effects and Mitigation

Section 9.1: Review of Data on Health Impacts

One of the work group presentations was from Dr. Gillian Schauer, a senior consultant who works with a number of state and federal agencies on cannabis policy issues, data monitoring, and research translation. She opened her review by stating that “we are living in a scientific time where you can find a study to support anything you want to say about the health effects of cannabis.”⁶⁶ Similarly, the seminal study entitled “*The Health Effects of Cannabis and Cannabinoids*” published in 2017 by the National Academy of Sciences, Engineering, and Medicine (NASEM) called the lack of research on the health effects of marijuana a matter of public health concern for vulnerable populations.⁶⁷ In addition, there is not always reliable data on changes in key public health measures after legalization in other states. While there is strong evidence for certain trends, some were more difficult to identify based on inconclusive – and sometimes conflicting – information presented to the work group.

In addition to the general research limitations, the health effects of marijuana presented here are not intended to be comprehensive. While the work group and this report aimed for a balanced approach, the health impacts below are not based on a systematic, academic review of the literature. This review is based largely on information provided to the work group by the National Governors Association, presentations from state and national experts, and items raised by work group members.

This report addresses the health impacts of adult-use legalization in three subsections:

- 1) The first subsection is a brief summary of the Virginia Substance Abuse Service Council’s review of marijuana in 2015.
- 2) The second subsection provides a high-level overview of the effects of marijuana itself. It begins with a review of the research landscape. This subsection also includes highlights from work group discussions, resources from the National Governors Association (NGA), and some independent review. While marijuana use will likely increase with legalization, it should be noted that marijuana - and therefore its associated health effects - are already present in the Commonwealth and nationwide.
- 3) The third subsection of the report describes changes in public health trends in states that have legalized marijuana for adult use.

⁶⁶ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

⁶⁷ (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.,” 2017)

For the remainder of this section, “legalization” means legalization for adult use unless otherwise specified.

1 – Virginia Substance Abuse Services Council 2015 Marijuana Review

During 2014 and 2015, the Governor’s Substance Abuse Services Council focused on the issue of legalizing medical use marijuana in Virginia. The council brought in experts to provide information about medical concerns and effects of marijuana, as well as the possible advantages and medical use. The following are the major points that came from these presentations:

Marijuana is a Schedule I Substance. Under federal law, it has no accepted medical use in the United States in its raw form and it is not approved by the FDA. Without establishing an appropriate risk-safety profile for use or determining the basic requirements such as dose, frequency, and duration of use, consumers may be subjected to greater harms than realized. (*PARHAM JABERI, MD, MPH, DIRECTOR, CHESTERFIELD HEALTH DISTRICT, VDH.*)

As with tobacco and alcohol, an increase in the availability and acceptability of marijuana, even if limited to medicinal purposes, will likely lead to increased rates of use, misuse, and addiction in our communities. Thus, additional resources will be needed to address public health and safety concerns as well as prevention and treatment services. Increased availability and/or acceptability of marijuana through legalization can also lead to delays in seeking treatment and/or promote relapse for those in recovery. (*MELLIE RANDALL, former DIRECTOR, OFFICE OF SUBSTANCE ABUSE SERVICES, DBHDS.*) In 2012, survey results indicated that more youth were using marijuana than cigarettes, and that marijuana was easier to get than cigarettes. A survey of youth conducted by the Partnership for Drug Free America indicates that youth report that “if marijuana were legal,” they would be more likely to use it.

While marijuana may be less addictive than illicit drugs or alcohol, nearly 9 percent of adults and 17 percent of teens that use marijuana regularly will become addicted. A recently published long-term study indicated a reduction in intellectual functioning by eight points for individuals who started using marijuana in adolescence and continued use into adulthood (age 38). In addition to decreased intellectual functioning, heavy marijuana use negatively impacts attention, memory, motivation, and increases risks of physical injury. (*PARHAM JABERI, MD, MPH, DIRECTOR, CHESTERFIELD HEALTH DISTRICT, VDH.*)

Delta-9-tetrahydrocannabinol (Δ 9-THC or THC) is the substance primarily responsible for the psychoactive effects of cannabis. THC has been demonstrated to have both beneficial as well as detrimental immunosuppressive effects on cancer cells related to its ability to induce cell death. Another active ingredient derived from the cannabis sativa plant that has been shown to have potential therapeutic value in treatment of severe seizures is cannabidiol (CBD). Unlike THC, CBD does not have a psychoactive effect and thus does not produce the “high” associated with THC. The body has an endocannabinoid system with receptors located in both the central nervous system and in the immune system; this gives cannabis a variety of therapeutic possibilities. (*NASSIMA AIT-DAOUD TIOURIRINE, MD, ASSOCIATE PROFESSOR, PSYCHIATRY AND NEUROBEHAVIORAL SCIENCES, UNIVERSITY OF VIRGINIA*)

At the date of these presentations, in states that have reformed their marijuana policy, there has been no increase in teen marijuana use. There was also no conclusive evidence that the drug effects of marijuana are causally linked to the subsequent abuse of other illicit drugs or that there are any long-term permanent cognitive deficits from heavy cannabis use. In fact, in states that have reformed their marijuana policy, prescription opioid overdose deaths are down by 25%. (*MALIK BURNETT, MD, M.B.A., POLICY MANAGER, OFFICE OF NATIONAL AFFAIRS, DRUG POLICY ALLIANCE*)

In conclusion, members reviewed and discussed the information provided in the presentations on issues related to marijuana, particularly medical marijuana, and analyzed the potential impacts of its legalization on Virginia. Members reviewed the research, as well as the multiple viewpoints presented, and agreed that further in-depth study of the potential impacts of marijuana on the Commonwealth and its citizens should be conducted. Accordingly, the council agreed to send a letter to the Governor and General Assembly recommending that such a study be undertaken.

2 – Health Effects of Marijuana

Marijuana Research Limitations

Cannabis has been used since antiquity⁶⁸ and there are many published studies examining its effect. However, there is minimal cannabis research that is based on generalizable, placebo controlled, randomized controlled trials. As a result of the research limitations much of the information of cannabis is associative, not causal. It is also based on botanical products, which are generally lower in potency and do not mirror the full range of commercially available products.

Variance between products and between cannabis plant materials make it difficult to consistently define exposure or dosage. The biggest barrier is the federal research restrictions on cannabis. Under the Controlled Substances Act, cannabis, excluding hemp, is classified as a Schedule I controlled substance which means it has no acceptable medical use and has a high potential for abuse. A Drug Enforcement Administration (DEA) registration is required to perform research on a Schedule I substance. Researchers have indicated that obtaining or modifying a DEA registration for this purpose can be difficult and time-consuming. An additional registration as a manufacturer may be required for research protocols wherein a particular dosage form must first be created.

While DEA indicated in August 2019 that it would review additional grower applications, there is currently only one entity, the University of Mississippi, registered by DEA to cultivate cannabis for research purposes under a grant with the National Institute on Drug Abuse (NIDA). A single domestic source of cannabis limits formulations for research and the University does not appear to have the capacity to provide cannabis for commercial development. Additionally, federal law does not allow researchers supported by NIDA or other federal agencies to obtain cannabis from state dispensaries for research purposes. While there have been efforts to research these products, including by some state universities, there appears to be a lack of research on these formulations and their health effects.

⁶⁸ (Diane P. Calello, MD, n.d.)

As more states legalize marijuana for both medical and recreational adult use, the number of high quality research trials is on the rise. When it comes to the therapeutic benefits of cannabis, there is substantial preliminary evidence that the plant can be used for additional clinical purposes. In the meantime, most public health experts recommend using systematic reviews of “gold standard” research. One example is the seminal study entitled “*The Health Effects of Cannabis and Cannabinoids*” published in 2017 by the National Academy of Sciences, Engineering, and Medicine (NASEM).

2020 Marijuana Legalization Work Group Discussions

Cannabis use is more harmful in certain populations:

Youth: Early use of marijuana, especially heavy use, increases the likelihood of experiencing some of the negative health outcomes described below. The rate of addiction in marijuana users increases from approximately 1 in 10 to 1 in 6 for those who initiate use before age 18.⁶⁹ According to an article recommended by the National Governors Association (NGA), “adolescents who use cannabis are more likely than adults to develop dependence; show cognitive impairment; leave school early; use other illicit drugs; develop schizophrenia and affective disorders; and have suicidal thoughts.”⁷⁰

Use during adolescence is associated with long-term impairment in academic and employment achievements, as well as social relationships and roles.⁷¹ As presented by Tom Bannard, program manager for the Virginia Commonwealth University collegiate recovery program, students are more likely to take breaks from college as they increase use. Heavy users also end up having lower earnings 10 years later.⁷² In terms of IQ changes from teen use, the work group was presented with both studies that showed no significant causal impact⁷³ and those that demonstrated an eight-point IQ drop with heavy use.⁷⁴ While we are continuing to learn its exact impact, we do know that adolescent marijuana use affects brain development in negative ways.

During Pregnancy: There is substantial evidence that cannabis smoking during pregnancy is associated with low birth weight, which can lead to other negative health outcomes. More recent evidence also suggests that it is associated with child behavioral problems, including cognitive function and attention.⁷⁵ The American Academy of Pediatrics and the American College of Obstetrics and Gynecology have both released strong statements discouraging cannabis use during

⁶⁹ (Substance Abuse and Mental Health Services Administration, 2020)

⁷⁰ (Hall et al., 2019)

⁷¹ (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.” 2017)

⁷² See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting)

⁷³ (NORML, n.d.-a)

⁷⁴ (National Institute on Drug Abuse, 2019)

⁷⁵ Dr. Robert Wallace, University of Iowa College of Public Health, summarizing the NASEM 2017 Report: <https://www.youtube.com/watch?v=KBhRF7InKQE>

pregnancy and breastfeeding.⁷⁶ The AAP also found surveys that showed dispensaries recommending cannabis for morning sickness.⁷⁷

Individuals with certain mental illnesses: As described below, marijuana can have negative interactions in individuals with certain mental illnesses, such as schizophrenia and bipolar disorder. The work group discussed focusing on education and early intervention for those vulnerable populations.

Cannabis Use Disorder: Cannabis Use Disorder (CUD) is a significant health impact of using marijuana and was an area of focus for the work group. Substance use disorder (SUD) impacts approximately 8.5% of Americans⁷⁸ and CUD impacts between 10-25% of regular cannabis users.⁷⁹ According to U.S. surveys done in the 1990s, “the risk of [cannabis] dependence was 20-30% in people who used cannabis 100 times or more and might be higher in those who use high potency products.”⁸⁰ CUD is significantly more likely when use starts early in childhood and with heavy patterns of use.⁸¹

Addiction generally is “a disease of learning and memory that leads to ‘self-inflicted harm and suffering.’”⁸² That characterization also applies to CUD, which can include a number of symptoms such as tolerance, persistent attempts to reduce use without success, withdrawal and cravings, and continued use despite interference with important social, occupational, and relational commitments.⁸³ Dr. Peter Breslin, addiction specialist, noted that it might be hard to distinguish between medicinal use, with a net therapeutic benefit, and problem use or CUD.⁸⁴ Finally, CUD has been associated with other substance use disorders, mental health disorder, and disability.⁸⁵

Therapeutic Effects of Cannabis: The National Academy of Sciences report found evidence of moderate health benefits, such as reducing emesis (vomiting) in cancer patients, improving spasticity (muscle stiffening) in multiple sclerosis patients, and reducing chronic pain symptoms. It found moderate evidence for improving sleep in individuals with certain conditions, and some limited evidence for improving symptoms of certain anxiety disorders and posttraumatic stress disorder. The U.S. Food and Drug Administration (FDA) also approved one form of CBD for treatment of epileptic syndromes.⁸⁶

Dr. Sulak referenced studies demonstrating a link between cannabis use and lower obesity rates and cardiometabolic risk factors. He focused on patients substituting marijuana for other, more harmful drugs. Tom Bannard and Dr. Peter Breslin noted that there is a tendency for the cannabis

⁷⁶ (Diane P. Calello, MD, n.d.)

⁷⁷ (Grigsby et al., 2020)

⁷⁸ See Appendix 14 - Meeting Minutes and Materials (October 20 Health Impacts Meeting)

⁷⁹ (World Health Organization, n.d.)

⁸⁰ (Hall et al., 2019)

⁸¹ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

⁸² See Appendix 14 - Meeting Minutes and Materials (October 20 Health Impacts Meeting)

⁸³ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting)

⁸⁴ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting)

⁸⁵ (National Institutes of Health, 2016)

⁸⁶ (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.” 2017)

industry to overstate some of the therapeutic benefits. While they agreed there are some benefits and promising studies, they cautioned against getting ahead of the research. For example, marijuana can help with anxiety but it can also worsen it, especially acutely. Similar to Dr. Schauer, Dr. Breslin encouraged using systematic literature reviews to avoid relying on low-quality or inconclusive research.⁸⁷

As described above, Virginia currently has a medical cannabis program that allows patient access for many cannabis products. However, some work group participants noted that a significant portion of recreational adult consumers likely use marijuana for health or wellness reasons. For example, one survey conducted by Eaze, an online cannabis delivery company, found 71% of consumers reduced or stopped their over-the-counter pain treatment.⁸⁸

Negative physical effects: Smoking cannabis is strongly associated with respiratory symptoms and chronic bronchitis. However, it has not been associated with Chronic Obstructive Pulmonary Disease (COPD).⁸⁹ While there are some early studies that suggest marijuana smoke may be similar to tobacco smoke⁹⁰ and contains carcinogens at similar rates,⁹¹ there is no consistent evidence of lung and other cancers in cannabis users.⁹² Researchers are continuing to look at long-term lung impairment. For example, Colorado’s public health department has found daily or near daily marijuana smoking may be associated with bullous lung disease.⁹³ There is also evidence of acute (short-term) improvement of airway function.⁹⁴ Frequent marijuana use is associated with cyclical vomiting or cannabinoid hyperemesis syndrome.⁹⁵ Many other long-term physical health effects remain unclear.

Negative psychosocial and mental health effects: The most significant, established negative mental health association with marijuana is the risk of development of schizophrenia or other psychoses.⁹⁶ While it is unlikely that marijuana causes schizophrenia in those who were not already predisposed to it, marijuana use often worsens the prognosis and treatment outcomes.⁹⁷ Heavy use increases the likelihood of suicidal thoughts. There is also some evidence of an

⁸⁷ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting)

⁸⁸ (Eaze, 2019.)

⁸⁹ (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.,” 2017)

⁹⁰ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

⁹¹ (Diane P. Calello, MD, n.d.)

⁹² See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting) and (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.,” 2017)

⁹³ (Colorado, n.d.)

⁹⁴ Dr. Robert Wallace, University of Iowa College of Public Health, summarizing the NASEM 2017 Report: <https://www.youtube.com/watch?v=KBhRF7InKQE>

⁹⁵ (Hall & Lynskey, 2020)

⁹⁶ (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.,” 2017)

⁹⁷ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting), Dr. Peter Breslin presentation

association between depressive disorders, social anxiety disorder, and increased mania symptoms in individuals with bipolar disorder.⁹⁸

Acute (short-term) effects: Marijuana impairs cognitive functioning, memory, and attention, with some effects lasting for days or weeks after use.⁹⁹ Marijuana impairment increases the risk of motor vehicle accidents.¹⁰⁰ Cannabis can produce adverse acute effects including anxiety and paranoia, depression, psychotic symptoms, and adverse gastrointestinal symptoms.¹⁰¹ Studies presented to the work group showed that marijuana may protect individuals experiencing a traumatic brain injury or heart attack,¹⁰² though other studies show acute marijuana use may be associated with increased risk of heart attack among adults.¹⁰³

High amounts of THC can also cause episodic psychotic states. Cannabis-induced psychosis is distinguished from psychotic orders more generally by the onset of symptoms, including paranoid symptoms, between a day and a week after consumption. Common symptoms include unusual thought content, excitement, grandiosity, hallucinatory behavior, and uncooperativeness. "Findings largely confirm reports of authors who have stated that cannabis produces a psychosis with predominantly affective features and more of positive symptoms, violence and excitement."¹⁰⁴

Causing initiation of other drug use (“gateway drug”): While many claim that cannabis is a “gateway drug,” the National Academy of Sciences report found only limited evidence of an association of cannabis use and changes in use patterns of other substances. Importantly, the report also found moderate evidence that marijuana use increases the likelihood of substance use disorder, including from tobacco, alcohol, and other illicit substances.¹⁰⁵ Similar to other drugs, many marijuana users use multiple substances. As many as 80% of marijuana users also use tobacco and nicotine products.¹⁰⁶ More than 40% of high school students nationwide who report prescription opioid misuse also reported marijuana use in the past 30 days.¹⁰⁷ Some surveys and studies show individuals using marijuana instead of prescription and over-the-counter drugs.¹⁰⁸

Higher Potency Products: Potency refers to the product’s amount of THC, which is the psychoactive cannabinoid in marijuana. Marijuana today is much more potent than it used to be,

⁹⁸ (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.” 2017)

⁹⁹ See Appendices 2, 12, and (National Institute on Drug Abuse, 2020)

¹⁰⁰ (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.” 2017)

¹⁰¹ (Hall et al., 2019)

¹⁰² See Appendix 12- Meeting Minutes and Materials (September 14 Health Impacts Meeting), Dr. Dustin Sulak presentation

¹⁰³ (Colorado, n.d.)

¹⁰⁴ (Kulhalli et al., 2007)

¹⁰⁵ (“The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.” 2017)

¹⁰⁶ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

¹⁰⁷ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting), Nancy Hans presentation

¹⁰⁸ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting), Dr. Dustin Sulak presentation

and that is especially true in states that have legalized marijuana for recreational adult use.¹⁰⁹ For example, Colorado data suggests average potency has increased from 56.6% in 2014 to 68.6% in 2017.¹¹⁰ Additionally, higher potency products can take people by surprise and lead to more accidental overdose. Raw plant products (often smoked) are less potent than waxes, dabs, and often vaporizers and edibles. While botanical products still make up a slight majority of the market nationwide, other products are gaining in popularity.¹¹¹ Colorado saw significant increases in dabbing and edible use among teens between 2015 and 2017.¹¹² Some work group members noted that looking solely at concentration could be misleading, since products may differ in serving size. They also noted that high potency products often have less additives.

There is little information available on the long-term health effects of high potency products. However, many public health experts have identified them as an area of primary concern. In addition to potential overconsumption, heavy patterns of use are associated with negative health effects. Different studies show that higher the potency products are correlated with problematic or more frequent use.¹¹³

No Fatal Overdose: Unlike other drugs (e.g., opioids), cannabis overdose does not cause people to stop breathing (except in some infants and toddlers with very high doses).¹¹⁴ Only a very small number of deaths from cardiovascular disease and stroke and a hyperemesis syndrome have been attributed to sustained, heavy use of cannabis.¹¹⁵

3 – Changes in Public Health Measures in States that have Legalized Marijuana

Similar to the challenges around determining the health effects of marijuana, there is insufficient data to fully determine the impact of legalization on key public health and safety measures. Only several years of data are available even for states like Washington and Colorado. Many states also do not have comprehensive historical baseline data. Quantifying the illicit market and stigma also make assessments challenging; individuals may be more likely to self-report use after legalization. Finally, despite the fact that heavy patterns of use are important to track, the level of exposure to marijuana is not always measured.¹¹⁶ While there is a lot that remains unknown, several key points emerged from the work group:

The effects of criminalization are a public health concern. The work group agreed that marijuana prohibition has had a significant public health impact. Individuals with charges or convictions for simple possession of marijuana often face significant challenges obtaining employment and necessary social supports. Those barriers impact socioeconomic status, which is clearly linked to health outcomes.¹¹⁷ Marijuana criminalization has also disproportionately

¹⁰⁹ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting) and (Hall & Lynskey, 2020)

¹¹⁰ (Marijuana Policy Group, 2018)

¹¹¹ (New Frontier Data, n.d.)

¹¹² (Colorado Department of Public Health & Environment, 2018)

¹¹³ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

¹¹⁴ (Diane P. Calello, MD, n.d.)

¹¹⁵ (Hall et al., 2019)

¹¹⁶ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

¹¹⁷ (Office of Disease Prevention and Health Promotion, n.d.)

impacted minority individuals and communities. The Virginia Crime Commission found that 46% of those arrested for a first offense of marijuana possession between 2007 and 2016 were African American.¹¹⁸ In Washington State, while racial disparities in arrests persisted, there was a significant decline overall in marijuana-related arrests after legalization, especially among 18-20 year olds.¹¹⁹ However, Washington State did not decriminalize marijuana prior to considering legalization. When discussing instances where substance use disorder (SUD) likely led to arrest, physicians on the work group agreed that SUD is a disease as opposed to indicating a “law-breaking” nature.¹²⁰

Legalization likely increases adult use of marijuana. We have seen an increase in daily and near daily use in both adults and young adults in states that have legalized marijuana for recreational adult use.¹²¹ “The legalization of recreational cannabis use in the US has substantially reduced the price of cannabis, increased its potency, and made cannabis more available to adult users. It appears to have increased the frequency of cannabis use among adults, but not so far among youth.” The author also looked to alcohol to suggest potential long-term trends.¹²² A recent study presented to the work group by Dr. James Thompson also showed states’ percentage of frequent adult users increasing from 2.13% to 2.62% after marijuana legalization, which would translate to an increase of around 30,000 Virginians.¹²³

The highest prevalence of marijuana use is among young adults (18-25) and seniors. As noted earlier, the group focused on young adults given their vulnerability. In Washington State, at-least-weekly marijuana use among young adults (21-25) increased from below 17% in 2014 to more than 21% in 2019.¹²⁴ In Colorado, “the prevalence rates for marijuana use in the past 30 days increased for young adults (18 to 25 years old), from 21.2% in 2005/06 (pre-commercialization) to 31.2% in 2013/14 (post-commercialization), but stabilized at 32.2% in 2015/16.”¹²⁵

The impact of legalization on youth use is unclear. The work group heard different perspectives on whether legalization is associated with increased adolescent use. While one presenter pointed to information showing increasing teen use in states after legalization,¹²⁶ the majority of information showed no increase in prevalence of adolescent use in many states that have legalized.¹²⁷ Among youth nationwide (12-17 years old), both past 30-day use and daily/near daily use has a slightly decreased overall since 2012.¹²⁸ In Colorado, past 30-day use among 12-17 year

¹¹⁸ (Jouvenal, 2019)

¹¹⁹ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting), Tom Bannard presentation

¹²⁰ See Appendix 14 - Meeting Minutes and Materials (October 20 Health Impacts Meeting)

¹²¹ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

¹²² (Hall & Lynskey, 2020)

¹²³ See Appendix 14 - Meeting Minutes and Materials (October 20 Health Impacts Meeting)

¹²⁴ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting), Tom Bannard presentation

¹²⁵ (Colorado Department of Public Safety, 2018)

¹²⁶ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting), Nancy Hans presentation

¹²⁷ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting), Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting), (Hall & Lynskey, 2020)

¹²⁸ See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

olds increased 2011-2013 and then decreased 2013-2015, with marijuana legalization passing in 2012 and the legal market opening in 2014.¹²⁹

However, perception of harm among youth has been decreasing, which typically indicates future use.¹³⁰ A *JAMA Psychiatry* study referenced by Dr. Thompson found a slight increase in youth problem use among teens post-legalization.¹³¹ There are also variables that may be obscuring the impact of legalization on youth use. For example, youth use of other substances is declining. Among twelfth graders, past 30-day use of alcohol and cigarettes are steadily decreasing while marijuana use is slightly rising. Vaping among twelfth graders, which overlaps with marijuana, has been dramatically increasing since 2016.¹³²

There is an increase in Accidental Overdose and Marijuana-Related Hospital Visits following legalization. Studies show that poison control center calls for unintentional pediatric exposure to cannabis are higher in states with more liberalized access to marijuana.¹³³ This trend is confirmed in the seminal cannabis study by the National Academy of Sciences, which found that legalized states have increased risk of unintentional overdose. In Colorado, the number of poison center calls more than doubled after legalization (110 calls in 2012 compared to 223 in 2014), with one of the biggest increases in the 8-year-old and younger group. The number of calls remained stable 2014-2017, though the portion of calls related to edibles increased in that time period.¹³⁴

Colorado also saw an increase in the number of hospitalizations and emergency room visits with potential marijuana exposures and diagnoses after legalization.¹³⁵ The emergency presentations were more likely to be younger adults and/or related to mental illness.¹³⁶ In addition, “there has been an increase in marijuana-related emergency and urgent care visits, for example, in the pediatric population in Washington State and Colorado since the commercialization of medical and recreational marijuana.”¹³⁷

No conclusion on legalization decreasing opioid misuse. Information from studies provided by NORML stated that, “cannabis access is associated with reduced rates of opioid use and abuse” and in opioid-related injuries.¹³⁸ Dr. Dustin Sulak, CEO of Integr8, also presented information on patients substituting cannabis for prescription drugs including opiates. In the Medical Cannabis Work group, a couple of research physicians presented information on promising preliminary studies indicating that medical cannabis can decrease opioid use.

, SAMHSA National Survey on Drug Use and Health (NSUDH)

¹²⁹ (Colorado Department of Public Safety, 2018)

¹³⁰ (Ladegard, 2020)

¹³¹ See Appendix 14 - Meeting Minutes and Materials (October 20 Health Impacts Meeting)

¹³² See Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)

¹³³ (Diane P. Calello, MD, n.d.)

¹³⁴ (Colorado Department of Public Safety, 2018)

¹³⁵ (Colorado Department of Public Safety, 2018)

¹³⁶ (Hall & Lynskey, 2020)

¹³⁷ (Ladegard, 2020)

¹³⁸ (NORML, n.d.-b)

However, studies have also refuted the association between liberalized cannabis laws and lower opioid misuse and mortality rates.¹³⁹ At least one study concluded, “cannabis use appears to increase rather than decrease the risk of developing nonmedical prescription opioid use and opioid use disorder.”¹⁴⁰ In review of the literature, the Colorado Department of Public Health & Environment found “conflicting research” on whether marijuana use is associated with decreased opioid use in chronic pain patients or those with a history of opioid addiction treatment.¹⁴¹ As presented by Tom Bannard, it appears more evidence is needed to determine the relationship between cannabis access and opioid use.¹⁴²

Minimizing the number of impaired drivers on the road in Virginia is critical to public health and safety, but much is still unknown about this issue. Similar to other drugs, the use of marijuana can impair an individual’s ability to drive safely. Preliminary data indicates the rate of marijuana impaired driving is on the rise nationally. The National Highway Traffic Safety Administration reports a 48 percent increase in the number of weekend nighttime drivers that tested positive for THC between 2007 and 2013-14 (i.e., an increase from 8.6 percent to 12.6 percent of drivers tested).¹⁴³ As noted previously in this report, states that legalized marijuana did not have high quality baseline data prior to legalization making it challenging to determine the consequences of legalization on marijuana-impaired driving. In Virginia, 94 deceased drivers tested positive for some level of THC in 2018. There were over 800 traffic fatalities in 2018, one third of these were alcohol related. In 2019, 90 deceased drivers tested positive for some level of THC.¹⁴⁴ However, Virginia is currently working to address data gaps and collect more comprehensive data about the rate of marijuana-impaired driving in the Commonwealth. It is also important to keep in mind that a positive THC blood test does not necessarily indicate marijuana-impairment.

This work group heard from leaders in other states and experts from the Department of Forensic Science (DFS) and the Department of Motor Vehicles (DMV) about the potential impact of marijuana legalization on traffic safety in Virginia. There was a focus on different types of impaired driving laws and specific types of roadside testing (e.g., oral swabs). Policymakers should carefully consider mechanisms to deter and reduce marijuana-impaired driving. Further details regarding impaired driving may be found in Section 8.8 of this report.

Existing marijuana users have access to a safer product. Many participants in legal commercial markets were using prior to legalization. According to a study recommended to the work group by the NGA, “legalization has reduced the illicit cannabis market in the U.S. states that have legalized recreational use, but might have increased illicit cannabis trafficking between states that have legalized cannabis and those that have not.”¹⁴⁵ It appears that the demand for cannabis is relatively inelastic¹⁴⁶ and many individuals are willing to pay a premium for the cleaner, safer product on

¹³⁹ (Shover et al., 2019)

¹⁴⁰ (Olfson et al., 2017)

¹⁴¹ (Colorado, n.d.)

¹⁴² See Appendix 14 - Meeting Minutes and Materials (October 20 Health Impacts Meeting)

¹⁴³ (Berning et al., 2015)

¹⁴⁴ See Appendix 10 - Meeting Minutes and Materials (October 21 Legal & Regulatory Meeting)

¹⁴⁵ (Hall et al., 2019)

¹⁴⁶ (Gravelle et al., 2014)

the regulated market.¹⁴⁷ In Washington State the number of 21-25 year olds getting marijuana from friends declined from 73% to 25% over six years.¹⁴⁸ Some sources point to increases in illicit market sales after legalization.¹⁴⁹ Virginia should encourage transition into the legal market, as access to a safer, well-labeled product is a clear public health benefit of legalization.

Section 9.2: Consumer Education

Similar to alcohol and tobacco, approximately 20% of users use 80% of the product. Robust, targeted information at the point of sale enables both frequent and new consumers to make informed choices. It can also encourage responsible use and mitigate negative health consequences, especially given the greater likelihood with heavy patterns of use.

Warnings and product information on packaging and inserts is important, but consumers often do not read the fine print. Requiring in-store signage with key information and health warnings is important.

Consumers also get much of their information from retail associates, sometimes referred to as “budtenders.” While Colorado has an optional retail associate training program with incentives, no state currently requires retail associate training. Required training, in partnership with public health experts, would help consumers get accurate and comprehensive information at point of sale.

The group also discussed defining “responsible use.” NORML has guiding principles on what responsible use looks like, including keeping it away from youth, not operating a motor vehicle while impaired, being considerate of surroundings, and not abusing the drug.

Section 9.3: Prevention Strategies

As Nour Alamari, co-chair of the health impacts subgroup mentioned, consumer education is important but is often too late to encourage informed choices. Youth perception of harm will likely continue to decrease as more states legalize marijuana. As described in section 9.1, adolescent use is associated with a greater likelihood of developing substance use disorder and other long-term negative effects. Dr. Dustin Sulak, CEO of Integr8, noted that many teens know what responsible use looks like for alcohol, but not more marijuana. Nancy Haans, Executive Director of the Prevention Council of Roanoke, said many parents are confused about what messages to give their children about marijuana.

While youth efforts are foundational to prevention, education should not be limited to school-aged youth. The brain continues developing into an individual’s mid-20s, and college-aged students are developing patterns for behavior later in adulthood. Additionally, marijuana use among the senior

¹⁴⁷ (NORML, 2020c)

¹⁴⁸ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting), Tom Bannard presentation

¹⁴⁹ (Smart Approaches to Marijuana, 2018)

population is increasing nationwide. Those new users may be returning to different products than they used in young adulthood and will need education.

While marijuana prevention efforts in Virginia are less robust than those for alcohol and tobacco, Virginia has a strong foundation on which to build. Evidence-based, marijuana-focused prevention programs have also been emerging in recent years. For example, both the Prevention Council of Roanoke and Chesterfield SAFE Marijuana have been partnering with Oregon's Clear Alliance to implement the Tobacco, Marijuana, and E-Cigarettes curriculum. Through sustained prevention efforts paired with local data collection, Roanoke County has also seen an overall decrease in the prevalence of marijuana use among middle and high school students (2002-2020).

If the Commonwealth moves forward with marijuana legalization, it is important to assess current efforts, address gaps in marijuana education services, and build on what is available. Policymakers should examine lessons learned from alcohol, tobacco, and other drugs, while recognizing that some challenges may be unique. Work group members suggested several existing efforts and areas of focus:

· **Public Health Campaigns:** It is important that public health campaigns be evidence-based and unbiased. While every drug is different, tobacco cessation campaigns were highlighted as model. Campaigns should:

- Include awareness that anyone could be at-risk for substance use disorder;
- Include health risks, especially for youth, women who are pregnant and breastfeeding, and those with certain mental health conditions; and
- Address workplace and driving impairment, as well as interactions with other medications.

· **Community Coalitions:** Virginia has evidence-based prevention strategies and approaches in place, especially through its community coalitions. The coalitions receive no general fund and rely primarily on local funding.

· **K-12 Education:** Virginia's newly revised Health Standards of Learning addresses substance use prevention throughout every grade level. The new curriculum could incorporate marijuana prevention education.

· **Virginia Foundation for Healthy Youth:** VFHY takes a comprehensive approach to prevent youth tobacco and nicotine product use, childhood obesity, and substance use. The organization provides grants for prevention education, community action, and research, has a statewide marketing campaign, and a robust youth engagement program. All of these efforts use evidence-based approaches to maximize impact.

· **Virginia ABC Education and Prevention:** By code, Virginia ABC is responsible for facilitating the Virginia Office for Substance Abuse Prevention Collaborative (VOSAP) and Virginia Higher Education Substance Use Advisory Committee (VHESUAC). VOSAP works to promote positive youth development by providing strategic statewide leadership, fostering collaboration and sharing of resources at all levels, promoting evidence based prevention and reporting annually on statewide

youth substance use prevention efforts. VHESUAC is responsible for coordinating strategic statewide leadership for substance use education, prevention, intervention and recovery at Virginia's public and private institutions of higher education. Additionally, Virginia ABC Education and Prevention's mission is to eliminate underage and high-risk drinking, therefore programming and resources are provided for all Virginians including: youth, adults, licensees, health care providers and community partners.

- **DBHDS Office of Behavioral Wellness:** OBHW utilizes evidence-based prevention approaches to address alcohol, tobacco and other drugs that include heightened community awareness of the issue, local community coalition mobilization and development to address, plan and identify local strategies and reduce underage access to prevent youth consumption. These strategies can also be used to mitigate and reduce the risk of harm with marijuana legalization.

- **College Recovery Programs:** The brain continues to develop into an individual's mid-20s, and college-age students are often developing patterns for the rest of their adult life. Virginia has developed a comprehensive College Recovery program partnering with VCU and utilizing State Opioid Response (SOR) funding. Currently the state is working with four additional colleges to add to the existing group of eight institutions. Marijuana use has been increasing in this population and must be addressed formally. In the college environment, the students and staff that are in the recovery programs are the voices for college prevention initiatives.

- **Health Care Professionals:** Health care professionals are on the front lines of identifying substance use disorder and advising patients and families. They will also be facing many of the likely challenges of marijuana legalization, such as increased marijuana-related emergency visits and substance use disorder needs. They should be consulted and provided with information on how to encourage responsible use and mitigate risk.

Section 9.4: Addressing Youth Impacts

Preventing youth use of marijuana was an area of focus for the work group and is woven throughout many of the sections above. Protecting youth includes safe storage, limits on marketing, and prevention strategies and education. The work group also agreed there should be mandatory ID checks and dispensaries should not be located near schools and other youth-focused locations. In light of the negative health effects from using marijuana while pregnant, work group members also recommended engaging Virginia's "Handle with Care" program that serve substance using pregnant and parenting women and their children. National Families in Action has also put together resources on how to "help legalization states develop regulations to protect children from commercial marijuana and other states to seek marijuana policies that chart a middle road between incarceration and legalization."¹⁵⁰

¹⁵⁰ (The Marijuana Report, n.d.)

Section 9.5: Undoing harms of marijuana criminalization

There are some tradeoffs between a public health approach to legalization and one that creates business opportunities for equity applicants. However, both health and economic equity was at the forefront of health impacts subgroup conversations. Social determinants of health - such as housing, access to healthy food, and income level – determine up to 80% of health outcomes.¹⁵¹ Access to resources is necessary for health and economic opportunity, and many work group members stressed that the benefits of legalization must be distributed equitably.

Michael Carter highlighted the importance of addressing root causes of inequities and listening to communities. For example, minorities may be using marijuana to cope with stress caused by racial discrimination and disproportionate criminalization. Urban, suburban, and rural communities have different challenges and different needs. The legalization structure should be set up in coordination with stakeholders including minority institutions.

Legalization poses unique challenges for those in government-funded and rented housing and renters. In terms of federally subsidized housing, marijuana is a Schedule I drug and previous federal guidance has limited the ability of medical cannabis users to consume in the home.¹⁵² Many states allow landlords to prohibit use or cultivation on their rental property. Some states allow social consumption sites, which provide individuals with an additional location to consume marijuana legally.

The group also agreed that legalization should avoid unintended consequences that exacerbate racial and other disparities. For example, consider mechanism to avoid dispensaries being overly concentrated in low-income neighborhoods, which could be detrimental for public health. Potential approaches are setting “density caps” for dispensaries or requiring them to be a certain distance from each other. Wealthier communities may be better equipped to navigate zoning and other rules. A report published by the American Academy of Pediatrics also found Black adolescents were more likely to use marijuana, in addition to having less access to treatment.¹⁵³

Two potential investments were mentioned in light of the principles mentioned above.

- A community reinvestment model, potentially similar to the model used by Illinois. In this approach, communities can apply for funding to meet their specific, community-driven needs including behavioral health care, education, housing, etc.
- Reentry and diversion programs for individuals in the criminal justice system: Virginia could build on existing efforts to focus on rehabilitation and decreasing recidivism. These supports include behavioral health treatment, given the significant portion of justice-involved individuals struggling with substance use disorder. As of August 2020, approximately 70% of individuals in Virginia state correctional facilities and 66% of Virginians on probation have substance use disorder needs.

¹⁵¹ (Robert Wood Johnson Foundation, 2019)

¹⁵² (Henriquez, 2011)

¹⁵³ (Ladegard et al., 2020)

Many of the issues posed by legalization are complex and the policy change will not be sufficient to undo the harms of criminalization. Even in some states where legalization has reduced the overall number of Black individuals arrested for marijuana related crimes, disproportionate arrests rose.¹⁵⁴ Monitoring disproportionate policing and creating “disparity reports” similar to Illinois could help evaluate implementation.

Section 9.6: Substance Use Disorder and Treatment

Given the likely increase in marijuana use with legalization, the work group discussed the importance of assessing the substance use disorder (SUD) system and preparing for changes in treatment needs. As described above, predictive factors for developing cannabis use disorder (CUD) include frequency of use, socioeconomic status, and level of education. According to an article published by the American Academy of Pediatrics, individuals who are unemployed or undereducated are disproportionately likely to suffer from severe CUD.¹⁵⁵ According to Dr. Thompson, genetics are the single strongest contributing factor to developing SUD. An increase in the number of marijuana users will likely lead to an increase in the prevalence of substance use disorder. Legalization may also decrease the stigma associated with marijuana, which could either encourage individuals to seek treatment or further normalize marijuana use.

Work group members noted that Virginia’s addiction services are already strained, especially its behavioral health safety net. In terms of marijuana, Virginia Medicaid and the Community Services Boards are already providing marijuana treatment services, which primarily involves psychotherapy and counseling. Based on Medicaid claims from state fiscal year 2020, approximately 4,700 beneficiaries were treated for CUD, including 1,360 individuals under 21, 680 people with disabilities, and 1,975 non-Hispanic Black individuals. Work group members recommended using a portion of marijuana tax revenues to support existing substance use disorder services that are underfunded instead of “reinventing the wheel.” These services include behavioral health treatment for justice-involved populations, Virginia Medicaid’s Addiction and Recovery Treatment Services (ARTS) benefit and Community Services Boards. They also recommended supporting training for SUD identification and intervention at “touch points” such as counselors and primary care physicians. Finally, one presenter noted that, based on our experience with alcohol, it is likely that costs to the public and to the government will exceed state revenue from marijuana sales.¹⁵⁶

Section 9.7: Virginia’s Clean Indoor Air Act

Virginia should develop marijuana policy consistent with clean indoor air policies for tobacco. Research is still developing regarding the effect of secondhand smoke from marijuana, though it

¹⁵⁴ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting)

¹⁵⁵ (Grigsby et al., 2020)

¹⁵⁶ See Appendix 12 - Meeting Minutes and Materials (September 14 Health Impacts Meeting) and (Centers for Disease Control and Prevention, 2018)

has been associated with bronchospasms in those with lung issues. Public smoking further normalizes use for youth and others, and having designated areas and clear signage is important.¹⁵⁷

Virginia’s Indoor Clean Air Act (Code Title 15.2, sections 15.2-2820 through 15.2-2833) was signed into law on March 9, 2009 by then Governor Kaine. The Act bans lighting or smoking of pipes, cigars, cigarettes, or any other “lighted smoking equipment,” in most Virginia restaurants. The Act covers the following locations in which smoking is prohibited: (i) elevators, regardless of capacity, except in any open material hoist elevator not intended for use by the general public; (ii) public school buses; (iii) the interior of any public elementary, intermediate, and secondary school; (iv) hospital emergency rooms; (v) local or district health departments; (vi) polling rooms; (vii) indoor service lines and cashier lines; (viii) public restrooms in any building owned or leased by the Commonwealth or any agency thereof; (ix) the interior of a child day center licensed pursuant to § 63.2-1701 that is not also used for residential purposes; however, this prohibition shall not apply to any area of a building not utilized by a child day center, unless otherwise prohibited by this chapter; and (x) public restrooms of health care facilities.

Exceptions to this law include allowing restaurants to have smoking areas if they are structurally separate from non-smoking areas, separately ventilated, and have separate doors between the smoking area and non-smoking areas of the restaurant. The Act does not regulate smoking in “open air” or outdoor areas of public restaurants nor does it apply to private clubs or portions of a restaurant that are used exclusively for private functions. A restaurant proprietor is required to post signs advising that smoking is not permitted, and to remove all ashtrays from non-smoking areas. Violations of the Virginia Indoor Clean Air Act by the proprietor of a restaurant or by a patron are punishable by a civil fine of not more than \$25 for each violation. (Virginia Code section 15.2-2825).

Section 9.8: Data Collection

The work group agreed that additional research and data collection was needed. There are many unknowns when it comes to marijuana and the impact of marijuana legalization. Without comprehensive baseline data, the Commonwealth will be unable to identify and respond to changes. The work group identified several areas where having baseline marijuana-related data is critical,

- Poison Control Center Calls
- Hospital and Emergency Room Visits
- Impaired Driving
- Use rates, including heavy or frequent use, mode of use, and demographic information especially for vulnerable populations (e.g., youth, pregnant women)
- Treatment rates

One option is to create an interagency working group to examine existing marijuana-related services and data collection in the Commonwealth.

¹⁵⁷ See Appendix 3 - Meeting Minutes and Materials (October 28 Full Meeting)

Chapter 10: Conclusion

While the goal of the work group and this report was not to recommend whether or not Virginia should legalize the sale and personal use of marijuana, the thoughtful, stakeholder-driven conversations of the group yielded a wealth of recommendations and considerations for the Commonwealth to draw upon should it decide to pass and implement marijuana legalization legislation. Virginia is in a unique position of being able to learn from other states that have already ventured down this policy path and being a leader nationally in setting up a thoughtful, comprehensive adult-use marijuana program.

Virginia has already implemented other cannabis programs over the past few years, and a legal marijuana program could build upon the progress that has already taken place to ensure the success of these programs. Furthermore, the Commonwealth can develop a program that accomplishes a wide array of policy goals if it chooses to pass marijuana legalization legislation.

This task would be both challenging and complex, requiring the input of multiple state agencies, stakeholders, and experts. The process to set up a state regulatory program would likely take some time and require adequate resources. While the potential economic opportunities and revenue impacts are promising, they are not guaranteed.

In addition, one of the most important ways Virginia can show leadership is through careful consideration of public health and safety impacts of legalization. It is crucial for the Commonwealth to dedicate state resources to collecting the right data and supporting key priorities, such as consumer and youth education and behavioral health programs. The Commonwealth can continue to fulfill its role of protecting its citizens and could also serve as a model for other states who may be considering marijuana legalization.

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- Appendix 2 - Meeting Minutes and Materials (September 16 Full Meeting)
- Appendix 3 - Meeting Minutes and Materials (October 28 Full Meeting)
- Appendix 4 - Meeting Minutes and Materials (August 17 Fiscal & Structural Meeting)
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Appendix 1

Marijuana Legalization Workgroup Minutes

July 31, 2020

9:30 AM

Virtually via WebEx

Video can be found at: <https://www.youtube.com/watch?v=XSpfHf2vjHU>

Work Group Attendees:

Secretary of Agriculture and Forestry Bettina Ring

Secretary of Public Safety and Homeland Security Brian Moran

Assistant Secretary of Health and Human Resources Catie Finley, on behalf of
Secretary Daniel Carey

Fabrizio Fasulo (VCU Wilder School Center for Urban and Regional Analysis)

Jimmy Thompson (VA Center for Addiction Medicine)

Nour Alamiri (Chair of Community Coalitions of VA)

Holli Wood (Office of the Attorney General), on behalf of Mark Herring

Colby Ferguson (DMV), on behalf of Commissioner Richard Holcomb

Kristen Collins, (Tax Department), on behalf of Commissioner Craig Burns

Commissioner Jewel Bronaugh (VDACS)

Caroline Juran (Board of Pharmacy)

Kristen Howard (State Crime Commission)

Nate Green (Virginia Association of Commonwealth's Attorneys)

Jenn Michelle Pedini (Virginia NORML)

Travis Hill (Virginia ABC)

Ngiste Abebe (Columbia Care)

Dr. Sam Caughron (Charlottesville Wellness Center Family Practice)

Michael Carter Jr. (VSU Small Farm Outreach Program and farmer)

Heather Martinson (Co-chair for Prevention Council VASCB), on behalf of Jennifer Faison

Additional Attendees:

Deputy Secretary of Agriculture and Forestry Brad Copenhaver

Justin Bell (Office of the Attorney General)

Deputy Commissioner Charles Green (VDACS)

Dr. David Brown (Department of Health Professions)

Annette Kelly (Board of Pharmacy)

Colin Drabert (State Crime Commission)

The meeting was called to order virtually at 9:30 AM.

Secretary Bettina Ring: Provided the welcome to the workgroup meeting and a brief description of the purpose of the workgroup, which is to examine the feasibility of legalizing sale and personal use, potential revenue impact, necessary legal framework, and health effects of Marijuana use. They have to report on this by November 30, 2020.

Appendix 1

Justin Bell (OAG): Provided Freedom of Information Act (FOIA) training (see attached slide deck).

Secretary of Public Safety and Homeland Security Brian Moran: Provided a brief welcome and explained how the legalization of Marijuana has ramifications across multiple secretariats in the Governor's office. He also highlighted the fact that Virginia has watched other states ahead of us in the legalization of marijuana and that we have learned from them and may be able to avoid some of the issues that other states have faced.

Dave Cotter Policy Director of DCJS (Marijuana Legalization): He provided an overview of how the laws and regulations related to Marijuana have changed rapidly in the Commonwealth of Virginia (see attached slide deck).

Secretary Bettina Ring: Facilitated introductions of all members of the work group or their designees.

Deputy Secretary Brad Copenhaver: Explained the charge of the work group and a recommended structure for engagement (see attached slide deck).

Work Group Charge: The General Assembly has asked this group to study the impact on the Commonwealth of the sale and personal use of marijuana. 1.) Legal and regulatory frameworks that have been established in states that have legalized the sale and personal use of marijuana, 2.) The feasibility of legalizing the sale and personal use of marijuana, 3.) The potential revenue impact of the legalization on the commonwealth, 4.) The legal and regulatory framework necessary to successfully implement legalization in the commonwealth, and 5.) The health effects of marijuana use.

Recommended engagement structure: Will take place over the next 4 months. There are three proposed subgroups (Fiscal and Structural, Legal and Regulatory, and Health Impacts). The groups will be divided up based on policy questions. There will be membership recommendations to follow. Fiscal and Structural: Feasibility of legalizing the sale and personal use of marijuana & potential impact to the commonwealth. Legal and Regulatory: Legal and regulatory frameworks of other states & Framework necessary to implement in VA. Health Impacts: Health effects of marijuana use, including both personal and public health. Mentioned that there is a plan to have a Diversity, Equity, and Inclusion Officer at the table in each of the subgroups. 3-4 meetings approximately for each subgroup. Each meeting will be open with structured public comment. One meeting should be used to solicit technical expertise and input from interested stakeholders. Each group makes recommendations to the workgroup for discussion about inclusion in final report.

Appendix 1

Associated Timeline: July 31st was the first meeting. The second meeting will be September 16th. The third and final meeting will be October 28th. Subgroup work will take place in the time slots between the meetings, with the report being due on November 30th.

Secretary Bettina Ring: Facilitated question and answer period

Dr. Thompson: Work group and division of labor question (If there is legalization and taxation...how would the revenue be spent on subsequent issues? How increased revenue would be used to help deal with substance abuse issues? Will there be time to do work across subgroups?)

Brad Copenhagen: Yes the groups will consider these questions, and there should be time to work across the different groups.

Samuel Caughron: How can I access all of the data that has already been gathered? If there are expenses involved for gathering information will there be a system for reimbursement?

Brad Copenhagen: We will set up a system to share this information, and we will look into the question of getting expenses covered.

Ngiste Abebe: When and how should we follow up about the subgroups and showing interests in wanting to participate in other subgroups? How does soliciting technical expertise come to fruition in subgroups to get that expertise?

Brad Copenhagen: We will follow up after this meeting with an email asking you to choose a subgroup or subgroups. Each subgroup will decide how to solicit the proper technical expertise.

Nate Green: When do you anticipate making the subgroup assignments? When will the group leaders be selected? When will the groups start meeting?

Brad Copenhagen: We will do all of this in the next couple of weeks.

Consensus Vote: Unanimous vote to move forward with the work plan and subgroups.

Green (Understand and Agree):19

Yellow (Needs Some Clarity):0

Red (Reservations and Concerns):0

Public comment was offered and no members of the public spoke.

Secretary Ring adjourned the meeting at 11:55 AM.

Understanding FOIA



or: How I Learned to Stop Worrying and Love Open Government.

If you don't know, now you know

- **§ 2.2-3702. Notice of chapter.**
- Any person elected, reelected, appointed or reappointed to any body not excepted from this chapter shall (i) be furnished by the public body's administrator or legal counsel with a copy of this chapter within two weeks following election, reelection, appointment or reappointment and (ii) read and become familiar with the provisions of this chapter.

Freedom of Information Act (FOIA)

Purpose –

By enacting FOIA, the General Assembly ensures the people of the Commonwealth ready access to public records in the custody of a public body or its officers and employees, and free entry to meetings of public bodies wherein the business of the people is being conducted. **The affairs of government are not intended to be conducted in an atmosphere of secrecy since at all times the public is to be the beneficiary of any action taken at any level of government.** Va. Code § 2.2-3700.

FOIA

How FOIA is to be viewed –

The provisions of FOIA shall be liberally construed to promote an increased awareness by all persons of governmental activities and afford every opportunity to citizens to witness the operations of government. Any exemption from public access to records or meetings shall be narrowly construed and no record shall be withheld or meeting closed to the public unless specifically made exempt pursuant to this chapter or other specific provision of law.

FOIA

The two major pillars of FOIA:

1. Public Records
2. Meetings

Public records

Except as otherwise specifically provided by law, all public records shall be open to inspection and copying by any citizens of the Commonwealth during the regular office hours of the custodian of such records.

Access to such records shall not be denied to citizens of the Commonwealth. Va. Code § 2.2-3704.

Public records

What are “public records”?

“Public records” means all writings and recordings, however they are stored, and regardless of physical form or characteristics, prepared or owned by, or in the possession of a public body or its officers, employees or agents in the transaction of public business. Va. Code § 2.2-3701.

Minutes, including draft minutes, and all other records of open meetings, including audio or audio/visual records shall be deemed public records and subject to the provisions of this chapter. Va. Code § 2.2-3707(I).

The custodian of such records shall take all necessary precautions for their preservation and safekeeping. Va. Code § 2.2-3704.

FOIA

How do you respond to a FOIA request?

Any public body that is subject to this chapter and that is the custodian of the requested records shall promptly, but in all cases within five working days of receiving a request, provide the requested records to the requester or make one of the following responses in writing. . . Va. Code § 2.2-3704(B). *See* Va. Code § 2.2-3704(B)(1-4) for permissible responses.

If it is not “practically possible” to produce the requested records in five days, you may secure another seven work days under certain conditions. Va. Code § 2.2-3704(B)(4).

Generally, no public body shall be required to create a new record if the record does not already exist. Va. Code § 2.2-3704 (D).

Failure to respond to a request for records shall be deemed a denial of the request and shall constitute a violation of this chapter. Va. Code § 2.2-3704(E).

FOIA

If FOIA is violated –

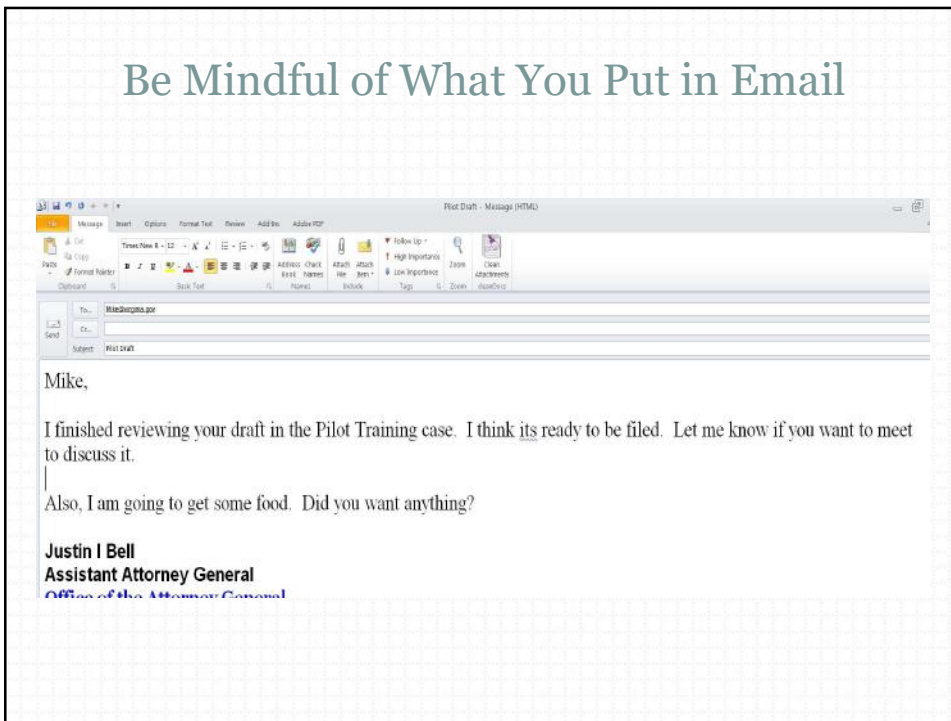
If the court finds the denial to be in violation of FOIA, the petitioner shall be entitled to recover reasonable costs, including costs and reasonable fees for expert witnesses, and attorneys' fees from the public body if the petitioner substantially prevails on the merits of the case . . . Va. Code § 2.2-3713

FOIA

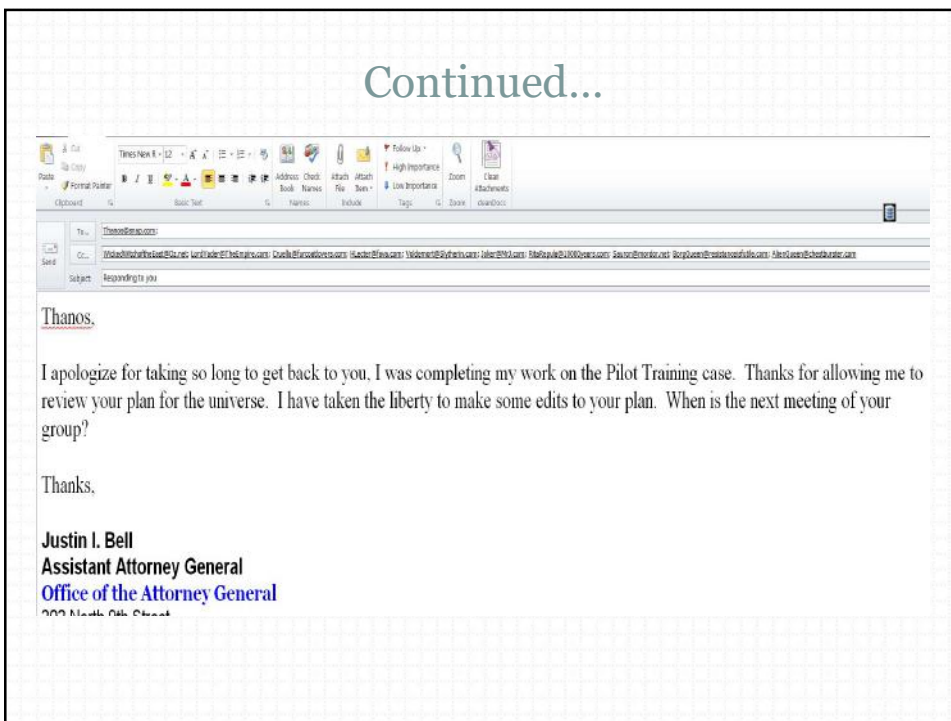
If FOIA is violated (cont'd.) – knowing violation

In a proceeding commenced against any officer, employee, or member of a public body under FOIA, the court, **if it finds that a violation was willfully and knowingly made, shall impose upon such officer, employee, or member in his individual capacity**, whether a writ of mandamus or injunctive relief is awarded or not, a civil penalty of not less than \$ 500 nor more than \$ 2,000. . . For a second or subsequent violation, such civil penalty shall be not less than \$ 2,000 nor more than \$ 5,000. Va. Code § 2.2-3714.

Be Mindful of What You Put in Email



Continued...



Takeaways

- When is your email related to this board private?
- When should you not use email?

FOIA

Meetings –

All meetings of public bodies shall be open, except as provided by § 2.2-3711. Va. Code § 2.2-3707.

Subcommittees, private sector members, etc.

"Public body" means any legislative body, authority, **board**, bureau, commission, district or agency of the Commonwealth or of any political subdivision of the Commonwealth . . . ; and other organizations, corporations or agencies in the Commonwealth supported wholly or principally by public funds. It shall include any committee, subcommittee, or other entity however designated, of the public body created to perform delegated functions of the public body or to advise the public body. It shall not exclude any such committee, subcommittee or entity because it has private sector or citizen members. [...] -- Code § 2.2-3701.

FOIA

When are you having a meeting?

"Meeting" or "meetings" means the meetings including work sessions, when sitting physically, or through telephonic or video equipment pursuant to § 2.2-3708 or 2.2-3708.1, as a body or entity, or as an informal assemblage of (i) as many as three members or (ii) a quorum, if less than three, of the constituent membership, wherever held, with or without minutes being taken, whether or not votes are cast, of any public body.

Definition cont...(2015)

- Neither the gathering of employees of a public body nor the gathering or attendance of two or more members of a public body at any place or function where **no part of the purpose of such gathering or attendance is the discussion or transaction of any public business**, and such gathering or attendance was not called or prearranged with any purpose of discussing or transacting any business of the public body . . . shall be deemed a "meeting" subject to FOIA.

Key Requirements for Meetings

- **§ 2.2-3707. Meetings to be public; notice of meetings; recordings; minutes.**
- A. All meetings of public bodies shall be open, except as provided in §§ 2.2-3707.01 and 2.2-3711.
 - § 2.2-3707.01 – Meetings of the General Assembly.
 - § 2.2-3707.01 – Closed meetings. But, there is a set of procedures you must take BEFORE going into closed meeting.
- B. No meeting shall be conducted through telephonic, video, electronic or other communication means where the members are not physically assembled to discuss or transact public business, except as provided in § 2.2-3708, 2.2-3708.1 or as may be specifically provided in Title 54.1 for the summary suspension of professional licenses.

More Requirements

- C. Every public body shall give notice of the date, time, and location of its meetings by:
- 1. Posting such notice on its official public government website, if any;
- 2. Placing such notice in a prominent public location at which notices are regularly posted; and
- 3. Placing such notice at the office of the clerk of the public body or, in the case of a public body that has no clerk, at the office of the chief administrator.
- All state public bodies subject to the provisions of this chapter shall also post notice of their meetings on a central, publicly available electronic calendar maintained by the Commonwealth. Publication of meeting notices by electronic means by other public bodies shall be encouraged.
- And there are more steps that must be taken in addition to those.

When meeting always required

- § 2.2-3710. Transaction of public business other than by votes at meetings prohibited.
- A. Unless otherwise specifically provided by law, no vote of any kind of the membership, or any part thereof, of any public body shall be taken to authorize the transaction of any public business, other than a vote taken at a meeting conducted in accordance with the provisions of this chapter.

But...

- B. Notwithstanding the foregoing, nothing contained herein shall be construed to prohibit (i) separately contacting the membership, or any part thereof, of any public body for the purpose of ascertaining a member's position with respect to the transaction of public business, whether such contact is done in person, by telephone or by electronic communication, provided the contact is done on a basis that does not constitute a meeting as defined in this chapter

Electronic meetings*

- § 2.2-3708. Electronic communication meetings; applicability; physical quorum required; exceptions; notice; report.
- A. No board or subgroup created by that board shall conduct a meeting wherein the public business is discussed or transacted through telephonic, video, electronic or other communication means where the members are not physically assembled.
- Ways to do it involve quorum of members physically assembled.

Electronic Meetings in the time of COVID-19

- The General Assembly changed the protocols for public meetings to address the risk of COVID-19.
- Many of the same notice and public participation requirements still apply.
- This is a privilege afforded to the government to allow for safe and efficient operation of the government, not a way to block out the public.

FOIA

- Hypo: At a public meeting, the work group votes to create a subcommittee of two board members to confer and create recommendations for the annual report to the Governor. Any problem?
- The two subcommittee members agree to meet over the telephone and discuss business, but they report to the board their discussions? Allowed? Why or why not?

FOIA

- Hypo: At a socially distanced charity event, you see two committee members standing together (but still six feet apart). You pleasantly greet them and make small talk. Meeting under FOIA?
- Can you make plans to binge watch a new TV series this weekend?
- Can you reminisce together about the previous meeting?

FOIA

- Hypo: A bike trail developer offers a helicopter tour to any committee members who wish to view the construction of a new bike trail at a state park in Maryland. You and two other members take the helicopter tour. Meeting under FOIA? Why or why not? What if the park is in Virginia?

FOIA

- Hypo: You write an email to all the other members sharing a brand new music video from Snoop Dogg and Willie Nelson. A fellow member responds all. Yet another member quickly responds all on the same topic.
- Meeting for FOIA purposes?
- How about opening an instant message chat online between three members?
- What if only two?
- What if the topic of discussion was inviting Snoop and Nelson to a meeting to discuss premium strains of marijuana?

FOIA

- Answer: an improper closed meeting occurs where the feature of simultaneity inherent in the term "assemblage" arises; the e-mails involve some sort of back-and-forth exchange of the three required members; the messages generate group conversations or responses with multiple recipients.
- From Hill v. Fairfax County Sch. Bd., 284 Va. 306 (2012).

Hypo cont.

- the inquiry is whether a series of electronic communications of whatever type constitutes a meeting of a public body for purposes of applying the FOIA.
- Can a blog be a meeting? "the key difference between permitted use of electronic communication, such as e-mail, outside the notice and open meeting requirements of [the] FOIA, and those that constitute a 'meeting' under [the] FOIA, is the feature of simultaneity inherent in the term 'assemblage.' "
- In Hill, emails were written by one member to one recipient. Court upheld finding of no meeting.

Beck v. Shelton

- In Beck, more than three members of City Council corresponded with each other concerning specific items of public business by use of e-mail. The shortest interval between sending a particular e-mail and receiving a response was more than four hours. The longest interval was well over two days.
- While such simultaneity may be present when e-mail technology is used in a "chat room" or as "instant messaging," it is not present when e-mail is used as the functional equivalent of letter communication by ordinary mail, courier, or facsimile transmission.
- Court found no meeting because no feature of simultaneity.

FOIA

- What about making decisions by vote over email?
- What prevents this?
- Does the pandemic change this?

FOIA

- That's right. Code § 2.2-3710 prohibits the transaction of public business other than by votes at meetings.

RECAP

- 1) can't transact public business without meeting--no voting, no deciding.
- 2) can't conduct an electronic meeting discussing public business (except if you follow certain requirements like quorum present).
- 3) can "separately" contact members to ascertain position so long as communication doesn't become a meeting. Can't have feature of simultaneity with quorum or three members.

Best practices

- Remember that what you put in writing is a public record subject to FOIA.
- Think first. If unsure, reach out and ask questions.
- Use a separate account for your public business.
- Pick up the phone.
- If in writing, send emails to staff for distribution.

FOIA

Questions about FOIA?

Please contact the “Virginia Freedom of Information
Advisory Council”

Toll free: 866-448-4100

Email: foiacounsel@dls.virginia.gov



Virginia Marijuana Legalization Work Group

As required by
2020 Acts of Assembly Chapters 1285 & 1286

First Meeting
July 31, 2020

AGENDA



Open Meeting & FOIA Training

1

5

Proposed Work Group Structure

Group Member Introductions

2

6

Group Discussion

Cannabis Law Overview

3

7

Finalize Work Plan

Work Group Charge Overview

4

8

Public Comment

Adjournment



Open Public Meetings and Freedom of Information Act Training

Justin Bell, Office of the Attorney General



Group Member Introductions

Bettina Ring,
Secretary of Agriculture and Forestry



Cannabis Law Overview

David Cotter,
Department of Criminal Justice Services

Marijuana Decriminalization

Virginia's 10-Year Journey



DCJS

Virginia Department of Criminal Justice Services

Marijuana Decriminalization Related Issues

- **Medical marijuana**

- 2015: Virginia allowed medical marijuana (CBD or THC-A oil)-Va. Code § 18.2-250.1-to treat intractable epilepsy
- 2018: Expanded for treatment of all medical conditions
- 2017: Creation, licensure, and regulation of pharmaceutical processors to produce CBD and THC-A oil in Virginia
- 2020: Immunity replaces affirmative defense.

- **Hemp production**

- 2015: Virginia allowed industrial hemp production for research purposes
- 2019: Virginia allowed commercial hemp production

Marijuana Decriminalization Definition

- **Decriminalization**

- Possession of small amounts of marijuana (i.e., personal use) punished by civil penalties
- No possibility of arrest or incarceration
- No criminal record or collateral consequences
- The sale, production, etc., of marijuana remains subject to criminal penalties

Marijuana Decriminalization Virginia's Former Law-Simple Possession

- Simple Possession of Marijuana-Va. Code § 18.2-250.1
 - 1st Offense: Unclassified misdemeanor
 - Maximum sentence: 30 days
 - Maximum fine: \$500
 - Eligible for 1st offender status where charge can be deferred and dismissed upon compliance with court-ordered conditions
 - 2nd or Subsequent Offense: Class 1 misdemeanor
 - Maximum sentence: 12 months
 - Maximum fine: \$2,500

Marijuana Decriminalization Virginia Former Law-Simple Possession

- Virginia did not define simple possession by a specific threshold amount
- The standard was Personal Use (i.e., no intent to sell, distribute, etc.)
 - Possession of a small amount creates an inference of personal use, but each case is fact-specific
 - *Rice v. Commonwealth*, 16 Va. App. 370 (1993) (.74 oz. of marijuana; conviction for possession with intent to distribute reversed)
 - *Hooks v. Commonwealth*, No. 0231-04-2 (2005) (.28 oz. of marijuana; conviction for possession with intent to distribute sustained)

Marijuana Decriminalization and Legalization Arrest and Conviction Data

- **CY07-CY16**
 - 133,256 arrests for simple possession of marijuana
 - 82% (109,676) male
 - 51% (68,496) persons aged 18 to 24
 - 47% (62,065) Black/African American
 - 52% (69,469) White
- **FY08-FY17**
 - 175,542 first offense possession charges filed in general district court
 - 55% (97,147) convictions

Source: Virginia State Crime Commission, *Decriminalization of Marijuana* (2017)

DCJS Virginia Department of Criminal Justice Services
www.dcjs.virginia.gov

Marijuana Decriminalization Virginia Legislation – How We Got Here

- **HB 1134 (Morgan)**
 - 2010: Virginia's first decriminalization bill
- **Many of the provisions in subsequent decriminalization bills can be traced to HB 1134**
 - Civil penalty (\$500) for simple possession
 - No requirement for substance abuse screening as a condition of a suspended sentence (except for minors)
 - Eliminate six-month driver's license forfeiture (except for minors)

DCJS Virginia Department of Criminal Justice Services
www.dcjs.virginia.gov

Marijuana Decriminalization Virginia Legislation – How We Got Here

- **Other HB 1134 Provisions**

- Lowered the criminal penalties for possession with intent to sell, distribute, etc., including:
 - Penalties for distribution to a minor
 - Penalties for manufacture or distribution at or near school property
- Rebuttable presumption that possession of no more than five marijuana plants was for personal use
- Eliminated the penalty for possession of drug paraphernalia used with marijuana
- Lowered the penalty for distribution of drug paraphernalia used with marijuana to minor

Marijuana Decriminalization Virginia Legislation – How We Got Here

- **HB 1443 (2011, Morgan)**
- **Removed all provisions dealing with distribution and paraphernalia**
- **What remained were the core elements found in most subsequent decriminalization bills**
 - Civil penalty for simple possession
 - Removal of other consequences, e.g., driver's license forfeiture
 - Retain certain penalties for possession by minors

Marijuana Decriminalization Virginia Legislation – How We Got Here

- Increased Legislative Activity 2015-2019
 - 2015: SB 686 (Ebbin)
 - 2016: HB 997 (Levine); HB 1074 (Heretick); SB 104 (Ebbin)
 - 2017: HB 1906 (Heretick); SB 908 (Lucas); SB 1269 (Ebbin)
 - 2018: HB 1063 (Heretick); SB 111 (Ebbin); SB 954 (Norment)
 - 2019: HB 2079 (Heretick); HB 2644 (Kory); HB 2370 (Herring); SB 997 (Ebbin)
- 2019 also saw the introduction of two legalization bills
 - HB 2373 (Carter); HB 2371 (Heretick)

Marijuana Decriminalization 2020 Legislation

- Legislative Critical Mass
- Seven decriminalization bills
 - HB 265 (Heretick); HB 301 (Levine); HB 481 (Kory); HB 972 (Herring); HB 1507 (Carroll Foy); SB 2 (Ebbin); SB 815 (Morrissey)
- Two legalization bills
 - HB 87 (Carter); HB 269 (Heretick)
- HB 972 and SB 2 became law on July 1, 2020

Marijuana Decriminalization HB 972 and SB 2 Key Provisions

- Civil penalty for simple possession
 - \$25
 - Offense charged on summons, i.e., a person will be issued a prepayable ticket
 - Penalties deposited into the Drug Offender Assessment and Treatment Fund
 - Prosecuted by the Commonwealth's attorney or the county or city attorney

Marijuana Decriminalization HB 972 and SB 2 Key Provisions

- Presumption of simple possession
 - Possession of 1.0 oz. or less of marijuana is presumed to be for personal use
- Effectively creates a de facto threshold amount for decriminalization
 - Though prosecution for possession with intent to distribute still possible

Marijuana Decriminalization HB 972 and SB 2 Key Provisions

- **Criminal provisions**
 - Changes felony threshold amount for sale, distribution, or possession with intent to sell or distribute marijuana
 - More than 1.0 oz. is a Class 5 felony
 - Previously, the threshold was 0.5 oz.
 - The increase is consistent with the presumption that possession of 1.0 oz. or less of marijuana is for person use
 - Includes hashish oil in the definition of marijuana

Marijuana Decriminalization HB 972 and SB 2 Key Provisions

- Eliminates requirement for substance abuse screening as a condition of a suspended sentence (except for minors)
- As passed the General Assembly, HB 972 and SB 2 eliminated the mandatory six-month driver's license suspension for simple possession (except for minors)
 - License suspension provisions removed by Governor's amendments
 - Governor had already signed legislation (HB 909 and SB 513) which eliminated license suspensions for all drug offenses, including simple possession

Marijuana Decriminalization HB 972 and SB 2 Key Provisions

- Criminal Records and History
 - Civil penalties for simple possession will not go on a person’s criminal record
 - If the offense occurred while in operation of a motor vehicle, the Department of Motor Vehicles will be notified for commercial driver’s licenses purposes
 - Prior criminal convictions for simple possession will be sealed and only accessible for limited purposes
 - Records of summonses for simple possession that are dismissed or where the person is acquitted are eligible for expungement

Marijuana Decriminalization Other States That Have Decriminalized Possession

- Connecticut
- Delaware
- Hawaii
- Maryland
- Minnesota
- Mississippi
- Missouri
- Nebraska
- New Hampshire
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Rhode Island

Marijuana Decriminalization Common Provisions

- Threshold amounts
- Civil penalties/Fines
- Not subject to arrest
- No criminal record
- Community service/Drug treatment
- Prohibition on possession in certain locations
- Minors

Marijuana Decriminalization Threshold Amounts

- CT: < 0.5 oz.
- DE: ≤ 1.0 oz.
- HI: ≤ 3.0 g. (≈ 0.1 oz.)
- MD: < 10.0 g. (≈ 0.35 oz.)
- MN: ≤ 42.5 g. (≈ 1.5 oz.)
- MS: ≤ 30.0 g. (≈ 1.05 oz.)
- MO: ≤ 10.0 g. (≈ 0.35 oz.)
- NE: ≤ 1.0 oz.
- NH: ≤ 0.75 oz.
- NM: ≤ 0.5 oz.
- NY: ≤ 1.0 oz.
- NC: ≤ 0.5 oz.
- ND: < 0.5 oz.
- OH: < 100.0 g. (≈ 3.5 oz.)
- RI: ≤ 1.0 oz.
- VA: ≤ 1.0 oz.

Marijuana Decriminalization Maximum Civil Penalties/Fines-First Offense

- CT: \$150*
- DE: \$100
- HI: \$130
- MD: \$100*
- MN: \$300
- MS: \$250^
- MO: \$500*^
- NE: \$300*^
- NH: \$100*
- NM: \$50
- NY: \$50
- NC: \$200*^
- ND: \$1,000*^
- OH: \$150
- RI: \$150*^
- VA: \$25

* Fines increase for subsequent offenses

^ Jail time possible for subsequent offenses

Marijuana Legalization Definition

- Legalization
 - Recreational use of marijuana is legal
 - Commercial distribution and production regulated by the state

Marijuana Legalization 2020 Studies

- **HB 972 and SB 2 – Secretaries’ Workgroup**
 - Agriculture and Forestry, Finance, Health and Human Resources, and Public Safety and Homeland Security
 - Examine the (i) feasibility of legalizing sale and personal use, (ii) potential revenue impact, (iii) necessary legal framework, and (iv) health effects of marijuana use
 - Report due November 30, 2020

Marijuana Legalization 2020 Studies

- **Joint Legislative Audit and Review Commission**
 - Make recommendations for how to legalize and regulate the growth, sale, and possession of marijuana by July 1, 2022
 - Recommendations should address (i) how to maintain and expand the medical marijuana program, (ii) protections for minors and how to identify and prosecute those who sell marijuana without legal authority, (iii) creation of strong testing and labeling, (iv) how to provide equity and economic opportunity for every community, especially those disproportionately impacted by prohibition drug policies, and (v) how to provide for reinvestment in communities most impacted by marijuana prohibition
 - Report due December 1, 2020

Marijuana Legalization States That Have Legalized Recreational Marijuana

- Alaska
- California
- Colorado
- D.C.
- Illinois
- Maine
- Massachusetts
- Michigan
- Nevada
- Oregon
- Vermont
- Washington

Source: National Conference of State Legislatures:
<http://www.ncsl.org/research/civil-and-criminal-justice/marijuana-overview.aspx>

DCJS Virginia Department of Criminal Justice Services
www.dcjs.virginia.gov

Marijuana Legalization Common Provisions

- Regulatory scheme for cultivation and retail sale
- Recreational use legal
 - Lawfully produced marijuana
 - Threshold amounts
- Taxation
- Form of marijuana
- Prohibition on possession in certain locations
- Criminal penalties for possession and distribution of non-retail marijuana
- Minors

DCJS Virginia Department of Criminal Justice Services
www.dcjs.virginia.gov

Marijuana Legalization Legal Amounts

- AK: ≤ 1 oz.; 6 plants
- CA: ≤ 28.5 g.; 6 plants
- CO: ≤ 1.0 oz.; 6 plants
- DC: ≤ 2.0 oz.; 6 plants
- IL: ≤ 30.0 g.
- ME: ≤ 2.5 oz.; 3 plants

Marijuana Legalization Minors

- Recreational marijuana use limited to persons aged 21 and older
 - Typically fines for persons aged 18-20
 - Fine may match the penalty for underage alcohol possession (e.g., CO: \$100; OR: \$1,000)
 - Minors usually subject to drug education/screening or community service

Marijuana Legalization DUI

- Virginia and all other states allow for a conviction for DUI if a person is driving under the influence of a controlled substance or marijuana
- Four states have limits on the amount of marijuana that can be in a person's blood
 - CO: ≥ 5 ng. delta-9-THC per ml of whole blood
 - IL: ≥ 5 ng. delta-9-THC per ml of whole blood or ≥ 10 ng. delta-9-THC per ml of other bodily substance
 - NV: ≥ 2 ng. delta-9-THC per ml of whole blood or ≥ 5 ng. marijuana metabolite per ml of whole blood
 - OH: ≥ 5 ng. delta-9-THC per ml of whole blood or ≥ 10 ng. delta-9-THC per ml of urine

Marijuana Legalization 2020 Virginia Legislation

- HB 87 (Carter) & HB 269 (Heretick)
- Contain many of the provisions common to marijuana legalization laws in other states

Marijuana Legalization 2020 Legislation

- The Board of Agriculture and Consumer Services will license and regulate:
 - Marijuana cultivation facilities
 - Marijuana manufacturing facilities
 - Marijuana testing facilities
 - Retail marijuana stores
- All legal marijuana purchased and consumed in Virginia must come through a licensed entity
- Localities can opt to prohibit any licensees or to allow consumption at retail stores

Marijuana Legalization 2020 Legislation

- Taxation on retail marijuana sales
 - HB 269: 9.7%
 - Retail Marijuana Education Support Fund (33%)
 - General fund (67%)
 - HB 87: 10%
 - Veterans Treatment Fund (first \$20 million of tax)
 - Tax receipts in excess of \$20 million
 - Localities in which the businesses operate (30%)
 - General fund for the state's share of Standards of Quality basic aid payments (35%)
 - Commonwealth Mass Transit Fund (35%)

Marijuana Legalization 2020 Legislation

- Legal amounts
 - HB 269: No amount limit; 3 plants home cultivation
 - HB 87: ≤ 10 oz. (2.5 oz. on their person); 12 plants home cultivation
- Various civil and criminal penalties for
 - Unlawful possession or distribution of retail marijuana
 - Possession or distribution of nonretail marijuana
 - Distribution of marijuana to minors

Marijuana Legalization 2020 Legislation

- Possession of marijuana by person under 21
 - HB 269: civil penalty
 - \$50 first offense
 - \$100 second offense
 - \$250 third or subsequent offense
 - HB 87: civil penalty
 - \$100 if < 2.5 oz. or 12 plants
 - \$500 if ≥ 2.5 oz. or 12 plants

Marijuana Legalization 2020 Legislation

- Consume marijuana in a motor vehicle
 - Class 4 misdemeanor
- Consumption in public
 - Civil penalty
 - \$50 first offense
 - \$100 second offense
 - \$250 third or subsequent offense
- Consumption on school property
 - Class 2 misdemeanor

Marijuana Legalization 2020 Legislation

- Licensure and regulation of cultivation and retail stores
 - Taxation of retail marijuana sales
- All legal marijuana purchased or consumed must come from a licensed entity
- Consumption by persons under 21 prohibited
- Various civil and criminal penalties for
 - Unlawful possession or distribution of retail marijuana
 - Possession or distribution of nonretail marijuana
 - Distribution of marijuana to minors
 - Consumption in public, a motor vehicle, or on school property

Work Group Membership



Bettina Ring, Secretary of Agriculture and Forestry	Aubrey Layne, Secretary of Finance	Daniel Carey, Secretary of Health and Human Resources	Brian Moran, Secretary of Public Safety and Homeland Security	Mark Herring, Attorney General	Craig Burns, Tax Commissioner
Richard Holcomb, DMV Commissioner	Jewel Bronaugh, VDACS Commissioner	Caroline Juran, Executive Director of the Board of Pharmacy	Fabrizio Fasulo, VCU Wilder School Director for the Center for Urban and Regional Analysis	Kristen Howard, State Crime Commission	Nate Green, Va. Association of Commonwealth's Attorneys
Jenn Michelle Pedini, Executive Director of Virginia NORML	Travis Hill, Virginia ABC	Ngiste Abebe, Director of Public Policy, Columbia Care	Sam Caughron, Charlottesville Wellness Center Family Practice	Michael Carter, Jr., 11th generation farmer, The Carter Farms	Nour Alamiri, Chair of Community Coalitions of Virginia
James Thompson, Virginia Center of Addiction Medicine	Jimmy Christmas, River City Integrative Counseling	Jennifer Faison, Executive Director Va Assn of Community Services Boards	<i>*Note: some members will be sending designees to meetings</i>		



Work Group Charge

Brad Copenhaver,
Deputy Secretary of Agriculture and Forestry

Work Group Charge



That the Secretaries of Agriculture and Forestry, Finance, Health and Human Resources, and Public Safety and Homeland Security shall convene a work group to study the impact on the Commonwealth of legalizing the sale and personal use of marijuana. The work group shall consult with the Attorney General of Virginia, the Commissioner of the Department of Taxation, the Commissioner of the Department of Motor Vehicles, the Commissioner of the Virginia Department of Agriculture and Consumer Services, the Executive Director of the Board of Pharmacy, the Director for the Center for Urban and Regional Analysis at the Virginia Commonwealth University L. Douglas Wilder School of Government and Public Affairs, the Virginia State Crime Commission, the Virginia Association of Commonwealth's Attorneys, the Executive Director of Virginia NORML, a representative of the Virginia Alcoholic Beverage Control Authority, a representative of a current manufacturer of medical cannabis in Virginia, a medical professional, a member of a historically disadvantaged community, a representative of a substance abuse organization, and a representative of a community services board. In conducting its study, the work group shall review the legal and regulatory frameworks that have been established in states that have legalized the sale and personal use of marijuana and shall examine the feasibility of legalizing the sale and personal use of marijuana, the potential revenue impact of legalization on the Commonwealth, the legal and regulatory framework necessary to successfully implement legalization in the Commonwealth, and the health effects of marijuana use. The work group shall complete its work and report its recommendations to the General Assembly and the Governor by November 30, 2020.

Work Group Charge



In conducting its study, the work group shall review:

1. the legal and regulatory frameworks that have been established in states that have legalized the sale and personal use of marijuana, and
2. the feasibility of legalizing the sale and personal use of marijuana,
3. the potential revenue impact of legalization on the Commonwealth,
4. the legal and regulatory framework necessary to successfully implement legalization in the Commonwealth, and
5. the health effects of marijuana use.

Work Group Charge



Not determining whether or not Virginia *SHOULD* legalize the sale and personal use of marijuana

Rather, the group is answering specific policy questions posed by the General Assembly related to *HOW* Virginia would or could legalize if the Commonwealth chooses to do so and the *FACTS* about the feasibility of regulating, the fiscal impacts, and the health effects



Organization and Schedule Recommendations

Brad Copenhaver,
Deputy Secretary of Agriculture and Forestry

Proposed Subgroups



Fiscal and Structural

Legal and Regulatory

Health Impacts

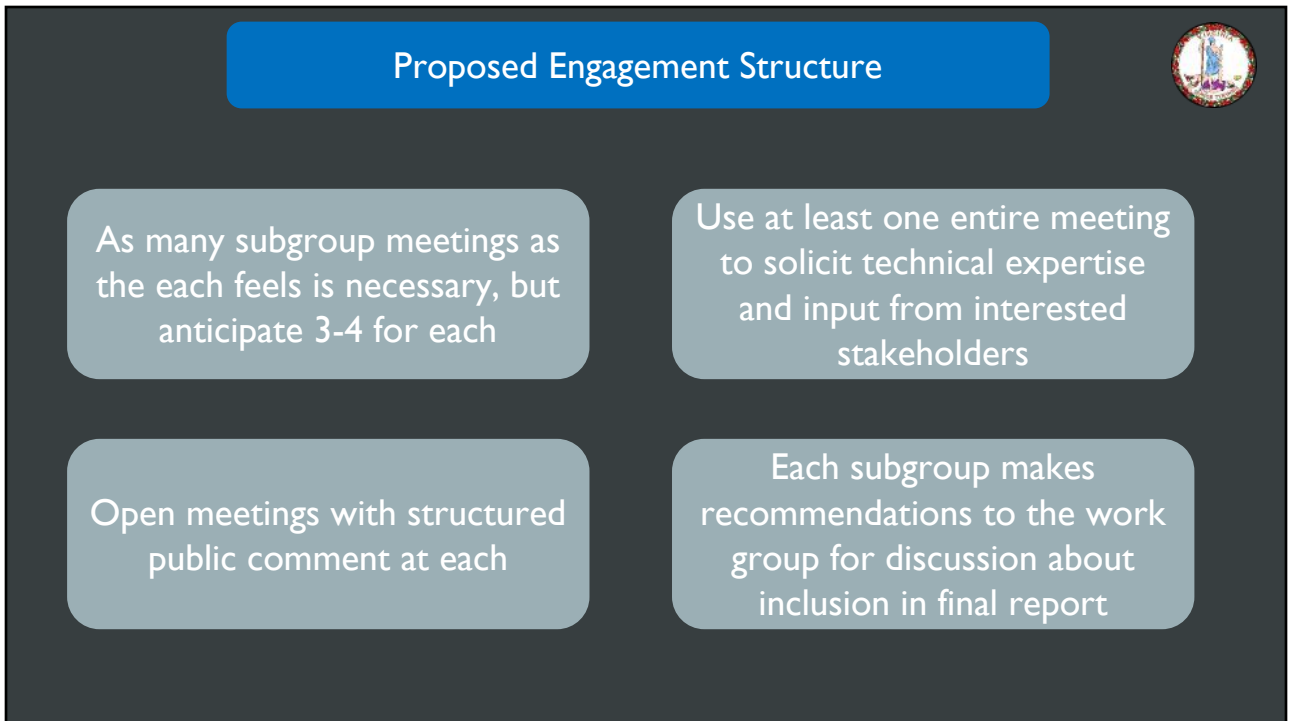
Groups divided up based on policy questions

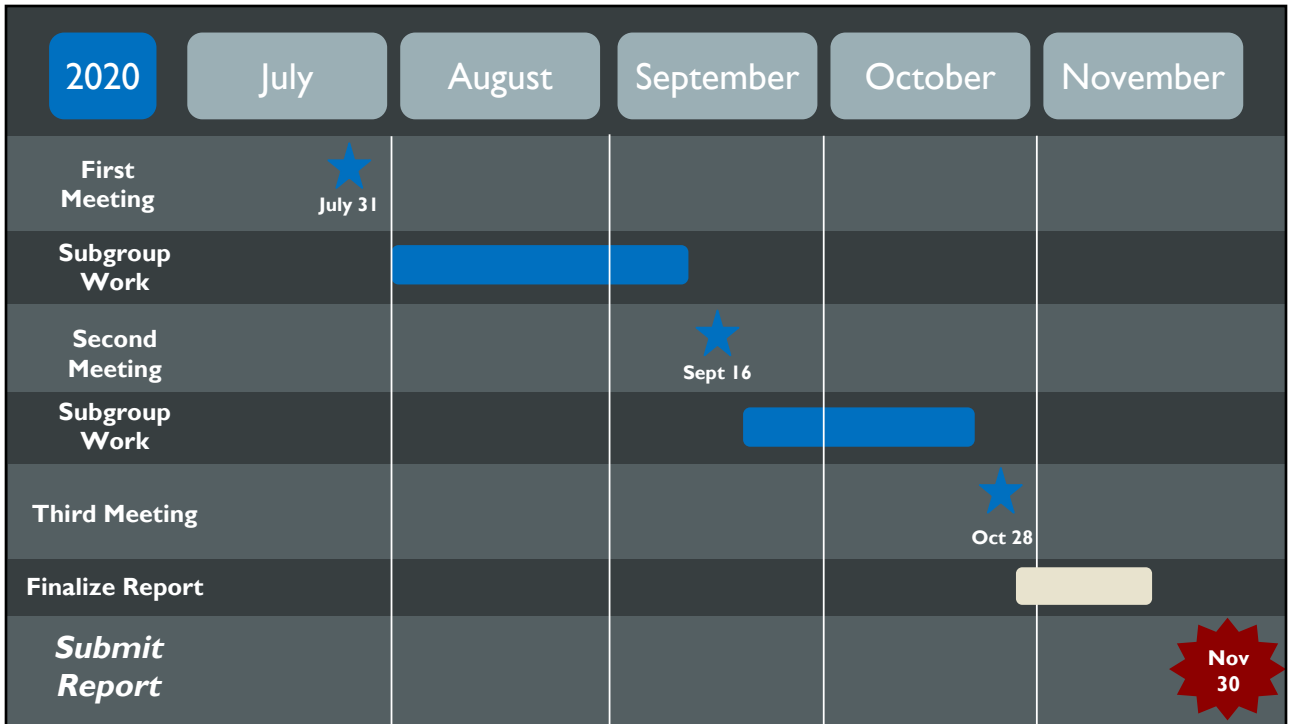
Scope and topic recommendations will follow but are open for discussion among work group and each subgroup

Membership recommendations will also follow, but any work group member can serve on whichever and as many subgroups as they choose

Subgroups	Fiscal and Structural	Legal and Regulatory	Health Impacts
<p>Proposed Scope</p>	<ul style="list-style-type: none"> ❖ Feasibility of legalizing the sale and personal use of marijuana ❖ Potential revenue impact to the Commonwealth 	<ul style="list-style-type: none"> ❖ Legal and regulatory frameworks of other states ❖ Framework necessary to implement in Va. 	<ul style="list-style-type: none"> ❖ Health effects of marijuana use, including both personal and public health
<p>Potential Topics</p>	<ul style="list-style-type: none"> ❖ Regulatory authority and responsibility ❖ Feasibility of setting up regulatory scheme ❖ Market size and state revenue projections 	<ul style="list-style-type: none"> ❖ Criminal justice ❖ Employment and workforce ❖ Social services ❖ Driving ❖ Growing/production requirements 	<ul style="list-style-type: none"> ❖ Physical health ❖ Behavioral health ❖ Public health

Subgroups	Fiscal and Structural	Legal and Regulatory	Health Impacts
State Government Members	<ul style="list-style-type: none"> ◆ Sec. of Finance ◆ Sec. of Pub. Safety ◆ Sec. of Ag & Forestry ◆ ABC ◆ VDACS ◆ TAX ◆ Pharmacy Board 	<ul style="list-style-type: none"> ◆ Sec. of Pub. Safety ◆ Attorney General ◆ DMV ◆ State Crime Commission 	<ul style="list-style-type: none"> ◆ Sec. of Health ◆ Pharmacy Board
Potential Stakeholder Members	<ul style="list-style-type: none"> ◆ Wilder School Center for Urban and Reg. Analysis ◆ Rep. of Medical Cannabis Manufacturer 	<ul style="list-style-type: none"> ◆ Association of Commonwealth's Attorneys ◆ Va. NORML ◆ Rep. of Historically Disadvantaged Community 	<ul style="list-style-type: none"> ◆ Medical Professional Rep. of Substance Abuse Organization ◆ Rep. of Community Services Board
Potential State Government Partners	<ul style="list-style-type: none"> ◆ Office of Diversity, Equity, & Inclusion ◆ Sec. of the Commonwealth ◆ Sec. of Commerce & Trade ◆ Department of Planning and Budget 	<ul style="list-style-type: none"> ◆ Office of Diversity, Equity, & Inclusion ◆ State Police ◆ Dept. of Forensic Science ◆ Dept. of Social Services ◆ Va. Employment Commission ◆ Office of the Chief Workforce Advisor 	<ul style="list-style-type: none"> ◆ Office of Diversity, Equity, & Inclusion ◆ Dept. of Health ◆ Dept. of Medical Assistance Services ◆ Dept. of Behavioral Health and Developmental Svcs. ◆ Dept. of Social Services ◆ Va. Foundation for Healthy Youth





Open Discussion about
Proposed Structure and Timeline

Facilitated by Secretary Ring



Public Comment

2 Minutes for Each Commenter

Pre-registered Commenters First

Additional Public Comment After if Time Allows
Use "Raise Hand" Feature to get into the Queue
Or if Calling in, Press *3

Please Begin by Stating Your Full Name and
Organization



Adjournment

Appendix 2

Marijuana Legalization Workgroup Minutes
September 16, 2020
9:30 AM
Virtually via WebEx

Video can be found at: <https://www.youtube.com/watch?v=eG193XliCBs>

Work Group Attendees:

Secretary of Agriculture and Forestry Bettina Ring
Secretary of Public Safety and Homeland Security Brian Moran
Secretary of Health and Human Resources Daniel Carey
Jimmy Thompson (VA Center for Addiction Medicine)
Nour Alamiri (Chair of Community Coalitions of VA)
Holli Wood (Office of the Attorney General), on behalf of Mark Herring
Colby Ferguson (DMV), on behalf of Commissioner Richard Holcomb
Kristen Collins, (Tax Department), on behalf of Commissioner Craig Burns
Commissioner Jewel Bronaugh (VDACS)
Caroline Juran (Board of Pharmacy)
Kristen Howard (State Crime Commission)
Jenn Michelle Pedini (Virginia NORML)
Travis Hill (Virginia ABC)
Ngiste Abebe (Columbia Care)
Dr. Sam Caughron (Charlottesville Wellness Center Family Practice)
Michael Carter Jr. (VSU Small Farm Outreach Program and farmer)
Heather Martinson (Co-chair for Prevention Council VASCB), on behalf of Jennifer Faison
Captain Richard Boyd (Virginia State Police)
Linda Jackson (Department of Forensic Science)

Additional Attendees:

Deputy Secretary of Agriculture and Forestry Brad Copenhaver
Assistant Secretary of Health and Human Resources Catie Finley
Policy Advisor to Public Safety and Homeland Security Jacquelyn Katuin

The meeting was called to order virtually at 9:30 AM.

Secretary Bettina Ring: Provided the welcome to the workgroup and reminded the group that they are meeting virtually because of the ongoing State of Emergency due to the COVID-19 pandemic.

Approval of July 31, 2020 Minutes

- Secretary Ring called for a vote to approve the minutes of the work group's last meeting on July 31, 2020.

Appendix 2

Roll Call Vote: 17 yes, 0 no

- Unanimous in favor of approval of minutes

Guest Speaker: Gillian Schauer, Senior Consultant

Gillian Schauer's focus is public health and safety. She became a consultant after working in tobacco prevention and control. As part of her work consulting with the Center for Disease Control (CDC), in 2013 she brought together a multi-state collaborative in 2013 of health officers from states in the process of legalizing adult use to share lessons learned. From that, she is now tracking policy for "Regulators Roundtable" group. Her comments do not represent the agencies with whom she consults.

The cannabis plant has more than 90 cannabinoids or individual compounds. The two most well-known are THC, which is primary responsible for the psychoactive or mild altering effects, and CBD, which while psychoactive is not a mild altering compound. The plant also has more than 100 terpenes - compounds that are responsible for the flavor and the aroma of the cannabis (can also be derived from other botanical sources). In 2018, the terminology she used changed due to the farm bill. Cannabis is the genus of the plant, but the farm bill legalized hemp, which is defined as having .3% THC or less. Marijuana is defined as having more than .3% THC, so that is what she uses. For this presentation, cannabis means the whole plant.

In terms of health effects, there is a lot more to say about what we don't know. We know less about the health effects of marijuana currently than we did about tobacco in 1964 when the first surgeon general's report on smoking and lung cancer came out. As such, what I am about to present is associative and not causal, particularly as it relates to risk.

What are the acute effects?

- Impaired memory, learning, and attention
- Impaired motor coordination and reaction time
 - Associated with increased risk of motor vehicle crash
- In high doses, acute psychosis and paranoia
 - Including naïve users and has resulted in death because of injurious behavior
- Altered judgement, increasing likelihood of risky behaviors
 - Quite a bit of literature on this including sexual to other violent behaviors

What are the longer term effects?

- Cognitive development and related outcomes
 - Especially if use is initiated early and there is a heavy pattern of use
 - Changes development of the brain - It is not clear exactly how and for how long, but we do know there are some permanent changes.
- Cannabis Use Disorder
 - It is a misnomer that this doesn't exist
 - Again, more common with early initiation and a heavy pattern of use
- Abuse/dependence on other substances
 - No science around gateway, so doesn't necessarily mean you will go on to use other drugs. However, if you do use other drugs there is some science to suggest that you are more likely to become dependent on or to abuse those
- Respiratory effects
 - Most common one here is bronchitis,

Appendix 2

- The science on lung cancer is inconsistent, so wouldn't there is a conclusion there
- Pregnancy outcomes
 - Biggest one is lower birth weight
- Mental health outcomes
 - This is where the literature is strongest.
 - It is complex, but the most evidence is around development or exacerbation of symptoms around schizophrenia. It appears that it is more likely with individuals who are already prone, but using at a young age and with a heavy use pattern can lead to earlier onset of the symptoms and can exacerbate the symptoms that are present.
- Cancer? Heart Disease? Science is not yet clear there.
- The science is still wide open on a lot of the issues she covered. As she mentioned, they are association.
- We are living in a scientific time where you can find a study to support anything you want to say about the health effects of cannabis. We really need to look at the big review studies in terms of determining potential risks. Prominent examples are:
 - "The Health Effect of Cannabis and Cannabinoids" done in 2017 by the National Academies of Sciences, Engineering and Medicine.
 - The Colorado Department of Health and Environment does a report every two years.
 - The World Health Organization 2016 report
 - She would recommend going to those instead of individual studies

Therapeutic Effects of Cannabis and Cannabinoids

- This is one big difference from other drugs like tobacco where there is no therapeutic use
- Still Schedule I and that definition means there is no medicinal use, but I am sure we all know someone anecdotally who has had benefit from using cannabis medicinally
- Evidence comes not just from the whole plant use but also from individual cannabinoids and isolated compounds
- Most promising is use for chronic pain (not a lot of evidence for use in acute pain), nausea, multiple sclerosis symptoms, a rare set of seizure disorders, and some evidence for sleep
- A handful of cannabis-based drugs are FDA approved

Why don't we know more?

- It is difficult to conduct research because of the Schedule I status.
 - Researchers have to obtain samples from NIDA and they don't have the range of products available in the real world, which is relevant especially in terms of potency and other things.
- Not able to quantify amount and exposure, which is important for knowing health effects
 - Also haven't differentiated effects for naïve and chronic users
- Overlap with other substances, in particular tobacco
 - A lot of marijuana users (an estimated 70-80%) also use nicotine and tobacco products so it is hard to control for that.

Who uses marijuana?

- National data (see slide) is largely mirrored by the states that have legalized adult use have data (e.g. Washington and Colorado)
- Highest prevalence in young adults (18-25 years old), have seen an uptick in that population and in adults 25 and older (2002-2017)

Appendix 2

- Among adult population, there seems to be an uptick in those 60 and older, which has a public health implication. It may be those who used in the 60's and 70's and are now returning to different products, so education is needed.
- Prevalence among 12-17-year olds has been flat nationally, in Colorado, and in Washington.
- More important than past month use is looking at daily and near daily use in the past month, because many of the health effects described earlier are worsened by heavy patterns of use.
 - Until recently, the highest prevalence of daily and near daily use was among young adults. That has just been surpassed by older adults, and in states that have legalized we have seen an uptick in both young adults and adults in daily and near daily use.
 - 40% of past month users nationwide are using daily or daily use. Our science is not modeled on those changing use patterns and exposure.
 - Again, flat daily and near daily use among 12-17 year olds.
- Monitoring the Future Survey
 - This is one of the healthiest generations we have seen, with alcohol, cigarette, and illicit drug use declining. There are only two areas where there is an increase or stable trend: e-cigarette or vaping use (overlaps with marijuana) and marijuana. If not for legalization policies, we might see a mirrored downward trend in marijuana use (from Jon Caulkins work).

Marijuana Products and Modes of Use

- We do not have a lot of comparative data in terms of modes of consumption (unlike tobacco where we know more)
- Combusted products (biggest issue here is smoke, we know that the constituency of the smoke is similar to that of tobacco)
- Vaporizing Devices – (concerns with both potency and additives e.g. EVALI crisis)
- Edibles and drinks – (risk here is delay of onset and potential for overconsumption)
- Dabbing (extremely concentrated forms of up to 90 or higher percent THC which has not been part of the literature)
- Other ways that require some careful regulation (some of which mirror existing medication such as metered-dose inhalers, suppositories, pills, tinctures)

Prevalence of Modes

- Though outdated, the best information is a study from 12 states (with legalized adult use, legalized medical use, and one with neither)
 - Smoked still most prevalent, but if ask people all the modes they used in the past month you also see: 25% edibles, 20% vaping, 15% dabbing (extremely high concentrates)
 - Keeping track of mode of use is an extremely important epidemiological component of any policy

Cannabis Policy in the US (see map)

- 11 states and DC legalized adult use
- Most passed through ballot measures (two legislative were Vermont and Illinois)
- Vermont and DC did not legalize the marketplace, so it is basically use and home grow
- Tended to be 12-24 months between when policy was passed and the retail marketplace opened (fast for the breadth of work)
- Timeline is important because it did not always allow public health to be front and center

What policies matter the most in terms of safeguarding public health and safety and how do they compare across states?

Appendix 2

- 1) What regulatory scheme is used? (See slide for full range options)
 - All 10 states have done the standard commercial model, which is very challenging in terms of protecting public health and safety. It creates an industry that benefits from consumption and novel products that may be at odds with public health outcomes.
 - Potential public health options would really be in the middle of the graph: government operated supply chain, public authority or near monopoly, non-profit organizations. She would consider the options with not profit. No states have done but some (e.g. Rhode Island) have proposed.

- 2) Who regulates marijuana?
 - Increasingly seeing Commissions (standalone not part of another body) where initially it had been departments of revenue/taxation/finance, liquor/alcohol control boards
 - California split the duties among three agencies - consumer affairs, public health, and agriculture – and considering merging to a single agency.
 - While health departments often regulate medical marijuana programs, they are rarely engaged in any of the regulation for adult use. She has been encouraging folks to have public health officials “at the table,” especially when developing regulations.
 - A number of states have advisory board (some with regulatory powers some solely advisory). She has seen increasingly states designate seats e.g. commerce, public safety, medical patient, which encourages people to represent that perspective.

- 3) What are taxes and where do they go?
 - Taxes have the potential to incentive behavior. Taxes that are too low may incentive increased consumption and that are too high may not sufficiently capitalize the illicit market. We have seen a wide range - most are 10-15%.
 - Washington has 37% and Oregon is effectively 17%, but you can find a \$3 gram in both states.
 - Alaska is the only state with no user-based excise tax, solely a weight based tax on the producer and processor.
 - Illinois is the first to try a tiered tax system based on THC content, which she thinks could be a good model for public health. (Products with less than 35% THC, effectively flower products, are 10%; 25% if above that, unless edible or beverage manufactured product which has 20%)
 - Taxes go to schools, public health, mental health/substance abuse, public safety/traffic safety, research, local governments, basic health and wellness funds, roads, recidivism reduction, and criminal justice.
 - In terms of public health and treatment funding, this has been a very small portion of the revenue. States have also told her that it often supplants other funds and that it is not protected. For example, in the wake of COVID-19, Colorado and Washington have significantly decreased their funds for marijuana prevention work and other public health marijuana activities. Funding for good data collection and public health education campaigns is critical.

- 4) What’s legal?
 - Most states have about an ounce of marijuana for possession or 7-8 grams of concentrate. Having a parallel limit in concentrate is important.
 - Higher home possession limits in Massachusetts and Oregon (10 and 8 ounces respectively)
 - Of 10 states with open marketplaces, all except Washington and Illinois allow adult use home grow, usually around 6 plants with only 3 flowering (Michigan allows 12).

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- Home grow is an important consideration because it can allow for diversion and untested products (including contaminants) that may find their way into the illicit market. 6 plants (3 flowering) can yield quite a lot of marijuana.
 - Note that both Washington and Illinois do allow for home grow on the medical side. It has been argued that patients may need a particular strain, which is a more challenging argument on the home grow side.
 - In terms of products, there are very few restrictions in the 10 markets. A couple states (Washington and California) have restrictions on types of edibles due largely to challenges with food inspection. (It is considered an adulterant federally so they only allow shelf stable products.)
 - No states have THC caps are restrict/greatly regulate concentrates, an opportunity for public health (can find products with 96% THC)
 - Edible serving sizes are often either 5mg or 10mg and in single serving packages in order to avoid emergency room visits from accidental child consumption.
 - States do have requirements that products should not appeal to children, but those are very challenging to enforce. Only one state has a preapproval for all edible products, where they look at every type and package (Washington State) and they would say it has been a heavy lift for them.
- 5) What is allowed to be in the products? Key policy areas:
- Excipients/diluents
 - Particularly relevant for vaping
 - Includes things like vitamin e acetate (EVALI incident), but also MCT oil, avocado oil, hemp oil
 - We have very little evidence about potential health effects of any of those, science expanding in the wake of EVALI
 - Flavors/terpenes
 - Natural to the plant and responsible for the aroma and flavor profile,
 - Also extracted and added to vaping oils for flavor and consistency profiles
 - Can derive them from many botanical plants and can be added back at different ratio (e.g. often find 2-5% terpenes in plant but would find 40-60% in vaping oil)
 - Don't yet know the health effects of terpenes, a lot may depend from where they come from and how regulated they are
 - Other additives - All 10 states do not allow any nicotine or any alcohol additives in any cannabis products
 - Solvents, Contaminants – All states conduct some level of testing including some cannabinoid content; all test for residual solvents; most test for microbial and pesticides; few test for heavy metals, mold/yeast, mycotoxins, and foreign matter
 - Can only use in-state labs since marijuana cannot cross state lines. All states are trying to license 3rd party labs and ideally reference labs that serve as an arbiter for varying test results among 3rd party labs (documented lab shopping). She thinks reference labs are a best practice (Colorado and Nevada only two who have set it up currently).
 - Ingredient disclosure challenges especially with some of the excipient, diluent and terpene additives. Some producers have claimed trade secrets, so states have had to come up with innovative approaches.
- 6) How are products packaged?
- All states have child resistant packaging requirements.
 - Most states have resealable child resistant requirements if the product is multi-use. If the product is a single serving, typically it is child resistant exit package. This has been a big win for public health and is important for protecting children, especially from edibles.

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- The regulations around appeal to children and youth have to be very tight, because some companies get creative. States are increasingly saying what is allowed instead of what is not allowed. Canada is a good example (one small branded element smaller than the universal symbol, over half of the product has to be the rotating warning label, opaque packaging with standard fonts).
- 7) How are the products labeled?
- 7 states require a universal symbol, which is important especially those who are not literate or English speakers (see examples on slide).
 - Warning labels have historically been on a sticker in very small font, which is another opportunity for public health.
 - See slides for what is required on the label in each state.
- 8) How is the market structured?
- All states have licensing types for producers, processors, and retailers
 - Vertical integration (can possess a license in each of those areas) is allowed in all states except Washington. Vertical integration is not required in any of the 10 states
 - Delivery – This license type that has been increasing especially in the wake of COVID-19, and are available in 5 of the 10 states.
 - Event licensing and onsite consumption licenses have been expanding (will discuss more later).
- 9) Local control – All states allow some level of local control, with most states allowing locals to opt out of having a marketplace, which can present challenges. There is a lawsuit in California right now because a number of communities that have opted out can still receive delivery products.
- 10) Requirements for retail stores
- All states having zoning requirements re: location near an organization that might attract children (usually 500-1,000 feet and often locals can adjust that).
 - If these zoning considerations are not coupled with density caps, you can have a disproportionate number of stores in certain areas. Those high-density areas are often low-income, which is not good for public health. Consider zoning in tandem with density caps so dispensaries are not all in low FCS neighborhoods.
 - All states prohibit tobacco and alcohol to be sold at the same location as marijuana. Differentiation in terms of paraphernalia and branded merchandise.
 - Mandatory ID checks upon entry have been quite effective. In Washington State they have had 96% compliance, which is amazing from public health perspective.
 - In states with medical use, adult use and medical use are typically co-located in (often one side medical, one side adult use). Types of products are usually the same, but the tax is different since most states there is no tax on medical marijuana.
 - Some states limit signage at the point of sale of advertising where the store is.
- 11) What information are people getting at point of sale? She just talked about budtender training piece.
- Budtenders are generally among the most trusted sources of info yet no state requires training of budtenders. Requiring that is a big opportunity for public health, since they are giving safety information at the point of sale.
 - In Washington, there is mandatory training for those who want to talk about medical implication.

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- Colorado has an optional program for budtenders that carries some incentives in terms of inspections and fees
- 12) Where are people allowed to consumer the products?
- These policies have been changing over last 4 years. From a public health standpoint, you don't want any public consumption and we see four states (Maine, Nevada, Oregon and Washington) that are not allowing any. However, enforcement is challenging since that effectively only for those that own their own home since it is still illegal in federal and state public housing and rental properties.
 - Massachusetts – There is a license available for on-site or public consumption of marijuana, but it is currently in violation of state law.
 - California and Illinois - Allow exemption to clean indoor air policy if the locality allows that as well, but do not have a state-level license.
 - 3 states have state-wide license available for on-site and public consumption of marijuana. That is either on-site/adjacent to store, in a hospitality establishment (CO), or sometimes for a vehicle e.g. tour bus. In Michigan, any business can allow for consumption regardless of whether they hold another marijuana license.
 - A consideration for public health is that we are starting to learn that marijuana smoke contains a lot of the same constituents as tobacco smoke, though we don't yet know the health effects of that exposure. There are studies in animal models (Matt Springer) that suggest there may be the same cardiovascular impacts.
 - Even putting that aside, enforcement is difficult since products with and without tobacco look so similar. In other words, you are effectively allowing that indoor clean air policy for tobacco as well. From a public health standpoint she thinks best solution is an outdoor, obscured from view scenario, but this is a space we will have to continue to study over time
- 13) What advertising is allowed? Currently, there are very few restrictions and that is another area of opportunity for public health.
- The types of ads on billboard, transit systems, and paid sponsorships have increased compared to what people envisioned. Most states have a requirement that an ad can only be placed in a medium if 71.6% of the population can reasonably be expected to be over 21. (That is derived from a policy that the alcohol industry set for themselves and means almost 30% of the viewership may be youth.)
- 14) Social Equity (high-level summary) – The criminalization of marijuana has not impacted all communities equally, and we need to remedy that in term of access to this industry and others, criminal records, etc. States are just starting to experiment with this, but she doesn't think any state has gotten all of it right. Social equity is important to consider before policies are put into place.
- 15) Impaired Driving – Illegal in all 10 states
- 5 states have per se laws (see slide for details). Most states are landing on a 5 ng/m: per se limit, though it is not based on solid science.
 - This is challenging area because the science around how marijuana is metabolized with different populations is not well established. There also aren't good roadside tests currently, and by the time a blood draw is done at precinct the results can be different.

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- 16) Environmental Considerations – States are starting to encourage better water usage, electricity usage, and waste management, mostly by giving priority to applicants with plans in place during the licensing process.

Reasons for varying and rapidly changing policies?

- Lessons learned from regulators, public health, and industry
- Politics and elections – Changes in governorship can change policies in both directions.
- Situational changes e.g. EVALI, COVID-19
- Medical marijuana precedent – States usually start with that framework.
- Copy and paste phenomenon – Because of time crunch between passage and implementation, there is a tendency to copy other states instead of thinking through whether it has been evaluated or is the best approach.

What is public health doing?

- Data monitoring and collection (important)
- Public Education (see subcategories on slide), though it has not been as well funded as it should be
- Building coalitions
- Contributing to research
- Educating policy makers

Conclusions:

- Still very early in this experiment
- Medical legalization sets a framework for adult use (so make sure thinking about what you have in place)
- Few true best practices yet (but early lessons learned and recommendations)
- Important to look at other countries, especially Canada – even though they have a commercial model, they have taken a bit more of a public health lens in their policies
- Look at other substance policy too, but adapt – other policies are valuable, but marijuana is not just like alcohol, tobacco, opioids
- Regulations to protect public health and safety (may be at odds with other goals, especially re: commercialization)

Guest Speaker: Norman Birenbaum, State of New York Director of Cannabis Programs

Mr. Birenbaum has worked with the National Governor's Association Cannabis Regulators Roundtable, which was established in 2012. His talk focused on emerging national trends for adult use cannabis regulation. Three years ago, this group started to include states with medical programs and now includes around two dozen members. This group turned into the Cannabis Regulators Association, and Mr. Birenbaum serves as the president of this new organization.

Much of what Virginia's program would look like depends on what the Commonwealth's goals are—could include economic development, preventing youth use and other public health considerations, raising revenue, and other considerations. Some of these may be in conflict with each other, so this will need to be weighed.

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Regulatory structure: There is a new trend of putting all regulatory authority of cannabis (medical and adult use) under one agency. That has been a lesson learned in many states—efficiency, accountability. Putting medical under this agency too has been a good move for states because existing medical licensees participate in the new market. One of the key things to remember here is allowing for flexibility—the industry is moving so quickly and changing rapidly—also need to leave flexibility for potential federal action as well (what would needs be if products could enter interstate commerce).

Tax structure: There is a wide array of rates and structures that states are doing—value based, weight based, potency based. This is something where we have seen a lot of progress on. The tax rate does not impact the value to the consumer, but the tax mechanism does. In example of Washington and Oregon, they have very different tax rates, but both states see similar per gram prices. Why? Oregon did not have market-based caps on production. Moving toward a weight-based model, such as Nevada and Illinois, is advisable. Canada has been very innovative on tax rates and incorporate potency in some products. The problem with this is testing because the testing infrastructure is hard to regulate—pay to play, lab shopping. Tax structure is very important.

Revenue: Where would you dedicate the revenue that comes from this? The recent conversation has started to focus on using funds around social equity. Fundamentally, there is apprehension about putting in a revenue allocation that depends on a certain amount of consumption. That may be ok, but there are public health and safety externalities to consider as well.

Banking: There is some federal guidance now around banking, but the state will need to evaluate what its role will be to regulate banking—everything is more difficult with a cash-based business. Banks have a lot of rules to follow federally, and one of these is to ensure they are following all state regulations. In RI, they had a system where the banking institutions could ask about new clients to ensure they were registered with the state—any way to facilitate working together with the state is helpful.

License and Market structure: There are pros and cons to every market structure. Early medical states compelled vertical integration—downside is the hurdles and the burdens you place on licensees, which is expensive and complex. Most states have prioritized diverse participation, and the trend now is to not compel vertical integration, and somewhat to discourage or prohibit it—prevent one company from cornering the market or amassing too much power. There is also a consideration about whether the state should have a monopoly or a lot of control—this could be beneficial in regulating advertising and retail distribution. RI proposed a state-run retail system last year. However, given the federal overlay, this is very complex—usually relies on a third party—and puts the state into an interesting place in dealing with growers and suppliers. This would also put the state in an interesting position with current medical processors.

Social consumption licenses: This is a new area of consideration. States like Alaska, Massachusetts, Illinois, and Michigan are leaders here. There are concerns with indoor clean air

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laws and considerations to make regarding other businesses, like hookah bars, that already may have a license for indoor consumption. Some states have decided to offer these licenses exclusively to social equity applicants. One other consideration is if these places would be able to sell the product as well, creating competition with other brick and mortar retail, or would it be a BYO model—however, would this encourage an illicit market.

Social equity: Inherently, so many factors impact social equity. You really need to decide how social equity is defined, how it is measured, and what the goals are. Social equity could be defined by criminal justice reform (e.g. expungement), revenue/funding and community reinvestment programs, and/or something that should include industry participation as well. When looking at industry participation, the first wave of ideas was around priority licensing (MA and CA). But that does not always equal market share—look at MA as an example of how great intentions did not materialize in market share. Now MA is looking to make certain licenses exclusive to social equity licenses.

Consider local control in this discussion as well—opt-in/opt-out localities, how municipal control manifests (existing zoning powers and/or through a license structure). Consider what the impact of the social equity program would be when factoring in working with local officials as well.

Access to capital and resources is also a key component of social equity. This could include financial investment, workforce development, legal services, etc. This is a big deal because the process must be adaptable to social equity stakeholders who may not have access to these resources. A good example is a requirement to have access to property before having the license in hand—this is very expensive to do. One recommendation is to not require having the actual property in hand or under contract before issuing the license. Social equity applicants are also being taken advantage of by predatory operators in some states. One trend is to not allow the sale of a social equity license for a long time or require it to be sold to another social equity applicant—this could be difficult and could limit the economic opportunity the sale of a license could afford. So this just drives home the point that you need to really consider what social equity means and what success looks like.

Product issues: Generally, when marijuana has been legalized, states have focused on the number of plants or ounces of the dried plant material, and marijuana was just any derivative of the plant. The question really now is are all products created equal or should we regulate them equally. We see 20% of the users using 80% of the product, which is similar to alcohol and tobacco use data. Weekend users generally represent about 5% of the market. Different studies show that the higher the potency of the product, there is a correlation with problematic or more frequent use. Should products at any and all potency be allowed? Some states have the authority to restrict this, but none have yet, and there have been proposals in other states.

Product composition: The E-cigarette or Vaping Product Use-Associated Lung Injury (EVALI) issues over the past years have really caused regulators to focus in on what is in the products,

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including things like cutting agents and flavors. There are substances approved by FDA for consumption that should not be used for inhalation—Vitamin E acetate and certain pesticides for example. This also applies to what type of devices can be used as well—stable battery requirement, inert metal use of the heating element, temperature controls. Some states are requiring the product to be in pre-filled, tamper evident cartridges and looking at stability requirements as well.

Packaging/labeling: Priorities tend to be properly communicating to the consumer what is in the package, what the appropriate warnings are, what the instructions for consuming it are, and an understanding that the product is intoxicating. The clearer and concise the standard, the better. Some states have said what the label cannot have, but that leaves a lot of room for what it potentially can have. So then the state would need to expend a lot of resources to approve thousands of SKUs to ensure they are meeting all of the standards. It is more preferable to have a standard form of packaging (like what Canada has done). This creates efficiencies for the regulator and is easy for consumers to find the relevant information. For warnings, we generally see a law of diminishing returns—the consumer typically does not read a lot of warnings. Canada and RI have utilized a rotating warning schedule. That way you can avoid a sea of text.

Advertising: This is something that most states struggle with. The first issue is the right to commercial speech that exists in basically all other industries—some legal precedent has been set that because the product is federally illegal, there is some leeway to prohibit certain or all forms of advertising. Some states are using the rule that if more than 30% of the population of an area is younger than 21 years of age, no advertising is allowed—but this also means that up to 30% of the audience could be kids. Also considerations of types of advertising allowed—just price and product, or lifestyle, or just allowing for anything. Typically states do for medical programs sets the stage for the adult use programs.

Testing: This is one of the most important components of a regulatory scheme. Most states do not have the resources to test everything, so they use a third-party. Some states early on allowed for internal testing, but that is not recommended. There is a consensus that there should be third party testing and sample collection. States should also consider what checks and balances there are on the labs to ensure there is not pay to play and lab shopping—this could involve setting up a third party reference lab or having the state be a reference lab, or doing other checks such as round robin testing compliance, auditing, or “secret shopper” exercises. Staying on top of the labs is very important for consumer safety.

Tools needed to adequately regulate this product: Virtually every single state has a seed-to-sale tracking system. This is important for preventing both diversion and inversion, for data gathering, and for public health and safety (e.g. issuing recalls). It is also important to ensure all relevant state agencies have access to this system and its data (e.g. epidemiologists, tax department staff, etc.). The state will also need to consider a licensing system, case management and inspection systems, and others that could come from a third party vendor. The Regulators Association can be a resource here.

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Home-growing: There have been a lot of issues with this with public health and safety. These products are not subject to the same controls others are. Even in states with a regulatory scheme for home grows, like Rhode Island, it is still very difficult to ensure public health and safety. There is also the consideration that growing plants in someone's home can be dangerous. It typically requires a robust system with electrical wiring, HVAC, and hot lights. Furthermore, there is the consideration of the processing of the plants—extraction can be very dangerous as well. This is not like home brewing beer or making wine. This is more akin to operating a still, which is illegal. Also, in most places where you can home-brew beer, the market value of what you are allowed to produce is much lower than the potential market value of just a few marijuana plants. So there would be an incentive to export that to the illicit market or to other states.

Impaired Driving: One big question is around whether to utilize a per se limit or not. The per se limits in place now are guesswork and not based on clinical evidence. A per se limit can be useful as an enforcement tool, but it is not an indication of whether someone is impaired or not. A lot of states are moving away from per se limits and towards trained officers. Everyone is waiting for a good equivalent of a breathalyzer, but it is hard to tell when we will have an answer to this. Also, states have considered is regarding the criteria for when a blood sample is taken and tested. A lot data that exist in CO and WA is inconclusive because of the different criteria—time, active THC vs. THC metabolite, etc.

Impairment as it relates to employment: A lot of states are allowing employers to make their own rules because there is not a good way to test for impairment right now (e.g. allowing zero tolerance). Mr. Birenbaum would recommend that if we do allow the employers to decide the rules, there should be language around the equal and equitable enforcement—also difference between testing positive for active THC vs. THC metabolite.

Cannabinoid hemp and CBD products: This has become a big topic after the 2014 and 2018 Farm Bills. A lot of the same considerations apply. If it is legally hemp, it should not impair you. Also, remember that these products can cross state lines, so that brings another layer of difficulty. Ensuring the proper labeling and packaging of these products is very important as well, especially if there is a public health or safety issue.

His final point was around the lack of source data that exists to understand this product, long term health impacts, and consumer behavior. The data we have does not even scratch the surface of what we should be seeking to know. As soon as possible, independent of all of the other work, Virginia should start planning for how to get baseline data—if we have no idea of what things look like now, we will have no idea how things change if the product is legalized.

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Report from the Fiscal and Structural Subgroup: Commissioner Jewel Bronaugh and Travis Hill

The Fiscal and Structural Subgroup discussed considerations for establishing an Adult Use Marijuana Program in Virginia that glean from established structures within Virginia's Medical Marijuana Program and the Virginia Industrial Hemp Program. The subgroup sought information from other states to learn more about their process of establishing an adult use marijuana program, along with the fiscal and structural decisions, best practices and challenges in establishing the program. The subgroup has had two meetings so far.

State agencies that provided feedback to the subgroup:

- Massachusetts Cannabis Control Commission
- Washington State Liquor Cannabis Board
- Colorado Marijuana Enforcement Division
- Oregon Liquor and Cannabis Control Board

Discussions with other states centered around program establishment, legislative processes for decision making, organizational responsibilities, funding, tax structures, licensing, market development, data analysis, and the use of a seed to sale tracking system. The following areas were discussed in detail:

- Identification of the primary program regulator (one agency as primary oversight vs. multiple agencies working together as a cabinet or working together under the umbrella of a committee)
- Cost to establish the program
- Internal organizational structure and positions:
 - Licensing and registration staff
 - Auditing and Investigation Staff (law enforcement background)
 - Financial Analysts/Financial Processing
 - Data Analysts
 - Software provider: Seed to Sale Tracking System
 - Scientific or laboratory
 - Internal Support positions – (i.e. Human Resources, FOIA)
 - Areas to address outside of the primary regulator:
 - Tax Revenue Collections
 - Law Enforcement
 - Liaison Positions: pesticides, food safety, weights and measures Dept. of Agriculture
- Considerations for getting the program started:
 - Legislature to create regulatory authority for agencies to establish a program and appropriate funding, as opposed to developing the program based on tax revenue and fees.

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- Recognition that up-front funding and established FTEs will be critical to start a program before license fees and tax revenues materialize
- Consideration of a Cannabis Cabinet of agencies or Secretariats mandated to come together on a regular basis for updates and address challenges of program start-up to alleviate the potential “red tape” that could be experienced bringing multiple state agencies together working with different regulatory authority.

Social equity permeated each conversation. Ideas for making decision that address social equity issues included:

- Affordability in application fees
- Business development grants, training and outreach programs

Going forward the subcommittee acknowledged the need for more information to assist with the development of solid recommendations for the workgroup. Items warranting further information and discussion include:

- Brief from JLARC to learn more about the data they are gathering and the considerations they are exploring regarding the industry
- Need for a deeper dive into successful social justice considerations and ideas from other states that are doing positive work in this area (i.e. Illinois).
- Need for an overview of Virginia’s Medical Marijuana Program, as this program provides an established mechanism and starting point for an adult use marijuana program in Virginia.

Report from the Legal and Regulatory Subgroup: Jenn Michelle Pedini

The legal and regulatory subgroup has had two meetings and consulted with the following organizations:

- NoLef Turns (Sheba Williams)
- Decriminalize Virginia (Vickie Williams)

After discussing and hearing from the speakers, the following is an outline of how the subgroup is considering various subjects.

- Criminal Code Impacts
 - DUIs/open container/highway safety
 - Penalties for individuals 18-21
 - Penalties for individual under 18 and their guardians
 - Penalties for distribution to minors
 - Public consumption, housing/renter implications
 - Employee protections (that comply with Federal prohibition)
 - Possession limits
- Expungement
 - Expunging cannabis convictions
 - Re-entry/job training programs

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- Voting rights restoration
- Social equity design
 - Restore/Reinvest/Renew fund (Illinois model)
 - Designating impacted areas
 - Designating social equity status for applicants
- Potential Regulations
 - Product formats and potency regulations
 - Location of businesses/engagement with localities
 - License types (delivery, social consumption lounges, chef/infusion)
 - Product labeling and packaging
 - Responsible advertising
 - Banking/financing/access to capital
 - Cultivation, including home growing
 - Manufacturing/processing
 - Testing labs

Report from the Health Impacts Subgroup: Nour Alamiri and Dr. Sam Caughron

The Health Impacts Subgroup has had two meetings and heard from the following speakers:

Nancy Haans, Executive Director of the Prevention Council of Roanoke, presented on marijuana's harm to developing brains and showed survey data pointing to students' decreasing perception of harm.

- Marijuana today is significantly more potent.
- She showed the lack of state-wide, marijuana-related data on poison control calls, driving impairment, and use. More public health data collection is needed to inform prevention and education programming, as well as measure impacts.

Tom Bannard, Program Coordinator for Rams in Recovery, showed concern over some of the "propaganda" that overstates the benefits of marijuana use.

- He said there are potential public health positive impacts, especially around mitigating criminalization, but said there are also negative health and academic impacts.
- Legalization does not necessitate increased use, but must "pull" the right public health levers such as considering state control of sales like Virginia ABC and investing in research.

Dr. Dustin Sulak, Director of Integr8 Health, said there was a lack of association between liberalized cannabis policies and public safety impacts like youth use and traffic safety.

- Research points to therapeutic benefits of marijuana and he sees them in this practice.
- Highlighted cannabis as harm reduction, for example a step-down off opioids.
- Similar to other speakers, he said education on responsible use is critical.

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Dr. Breslin, Board Certified Psychiatrist and Addiction Specialist, noted the potential mental health benefits of cannabis but focused on the risk of dependence, especially for vulnerable patients such as schizophrenics.

- Higher potency is associated with greater harms.
- He took issue with some of the implications that Dr. Sulak drew from the research, since there is currently very little conclusive and generalizable evidence on marijuana's benefits to public and individual health.
- He is pro-legalization but we should invest in prevention, research, and treatment.

Group takeaways/next steps:

- A theme from all presenters was the need for public education and data/research.
- There is also general agreement on the harms of criminalization, which a disproportionate to minorities, and the importance of equitable benefits of legalization.
- The group should focus on the limits including age, possibly "dosage," and safety including safe packaging.
- Some members emphasized the importance of looking at root causes, including mental health, and the likely impact of legalization, including substance use disorder. Funding and policies should address those causes and impacts.
- The group is taking into account the public health costs of criminalization and also the public health benefits of bringing people out of the black market.
- The group is also considering the disproportionate arrests of black and brown males increase instances of mental health concerns, which could lead to substance abuse.
- The group is also considering how to look at the whole public health picture, including how this could be policed in the future.

Public comment was offered and one member of the public spoke:

- Paul McClean, founder of the Virginia Minority Cannabis Coalition: He really appreciated hearing the subject of social equity brought up in multiple areas and looks forward to seeing how Virginia focuses on equity in setting up the program.

Secretary Ring adjourned the meeting at 12:15 PM.

Cannabis Policy Issues for Public Health and Safety

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Presentation for State of VA
09/16/20



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Acknowledgements / Disclaimer

The Centers for Disease Control and Prevention, the CDC Foundation, the National Institute on Drug Abuse, and a number of states who have been funders of my cannabis policy work.

The many states who contributed to some of the data I am sharing today.

The findings and conclusions in this presentation are my own and do not necessarily represent the official position of any of the agencies with whom I consult.

2

Agenda

- Brief Health Effects
- Epidemiology Overview
- Current U.S. cannabis policy overview and context
 - Comparison of Adult Use policies across U.S. states
 - Why do state policies vary and change?
- Conclusions

3

>90 Cannabinoids
>100 Terpenes



4

Cannabis

≤.3%
THC



HEMP

No longer Schedule 1



MARIJUANA

Schedule 1


>.3%
THC

5


What are the health effects of marijuana (briefly)?

6


Acute effects




Impaired memory, learning, and attention



Impaired motor coordination/reaction time




In high doses, acute psychosis and paranoia




Altered judgment, increasing likelihood of risky behaviors

7


Longer-term effects




Cognitive development and related outcomes



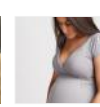
Cannabis Use Disorder




Abuse/dependence on other substances






Respiratory effects



Pregnancy outcomes




Mental health outcomes

8

Therapeutic Effects of Cannabis and Cannabinoids

- **Schedule I substance**
- **Anecdotal evidence**
- **Increasing scientific evidence** for medical use of cannabis or cannabinoids:
 - Most promising for: chronic pain relief, nausea relief, patient-reported symptoms from MS, rare seizure disorders; some evidence for sleep.
 - 3 FDA approved synthetic THC drugs; 1 FDA approved cannabis-derived CBD drug



9

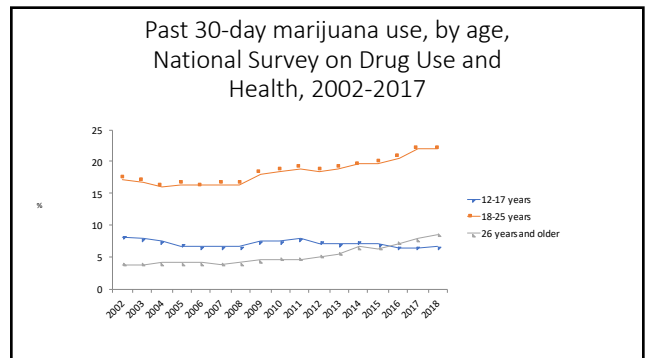
Why don't we know more?



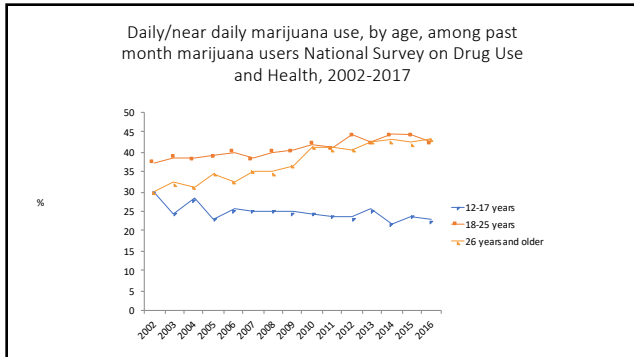
10

Who uses marijuana?

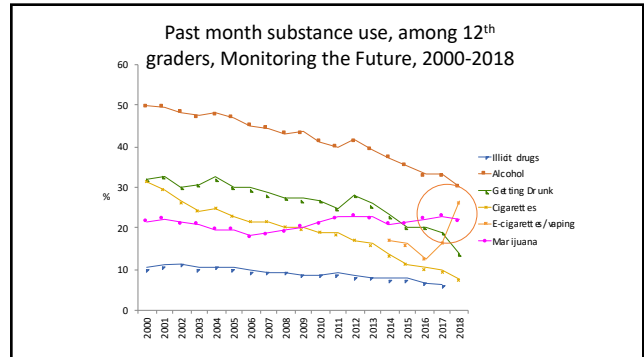
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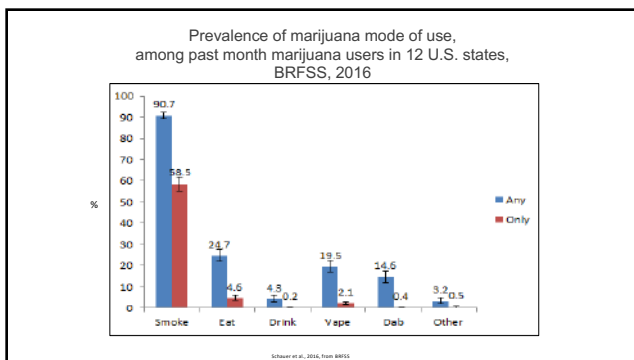
How is marijuana consumed?

15

Marijuana Products and Modes of Use

- Combusted products** (e.g., joints, pipes, bongs, bowls, blunts, spliffs)
- Vaporizers** (using electronic vaping devices, for oils or dry herb)
- Edibles** (e.g., brownies, cookies, candies)
- Drinks** (e.g., elixirs, syrups, hot chocolates)
- Dabbing** (using dab and oil rigs, hot knives)
- Other ways** (metered-dose inhalers, suppositories, pills, tinctures, etc.)

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Non-Medical/Adult Use States

	Year Passed (% support)	Retail marketplace open?
Colorado	2012 (55%)	January, 2014
Washington	2012 (56%)	July, 2014
Oregon	2014 (56%)	October, 2015 (through medical dispensaries)
Alaska	2014 (53%)	October, 2016
District of Columbia	2014 (65%)	No retail marketplace approved
Nevada	2016 (54%)	July, 2017
California	2016 (56%)	January, 2018
Massachusetts	2016 (54%)	November, 2018
Maine	2016 (50%)	Expected in Spring, 2020
Vermont	2018 (legislative)	No retail marketplace approved
Michigan	2018 (56%)	December 1, 2019
Illinois	2019 (legislative)	January 1, 2020 (through medical dispensaries)

* VT and DC have legal medical marketplaces, but no legal adult use marketplaces.

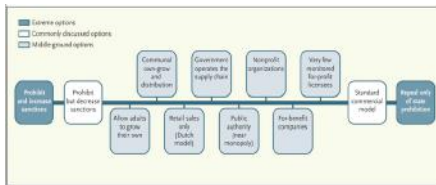
19



What policy variables likely matter most for safeguarding public health and safety, and how do they compare across U.S. states?

20

What regulatory scheme is chosen?



Caption: Kilmer & Recreational Cannabis – Minimizing the Health Risks from Legalization (2017) New England Journal of Medicine; 376 (8): 759-767

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Who regulates marijuana?



- Marijuana Regulatory Agency or Commission (MA, MI, NV)
- Depts. of Revenue/Taxation/Finance (CO, IL, ME, NV- until July of 2020)
- Dept. of Consumer Affairs (CA)
- Liquor/Alcohol/Beverage Control Boards (AK, OR, WA)
- Public Health (regulatory role CA); Agriculture (regulatory role in CA, IL)
- 6 states have advisory boards; rule making powers (AK, MA, NV, WA); advisory roles (MI, OR)

22

What are the taxes and where do they go?



- Retail excise taxes vary widely: ~10-15% (ME, MA, MI, NV) to 37% (WA)
- AK is only state with no user-based excise tax
- IL is only state with tiered tax based on THC content

→ What taxes fund (beyond the regulatory agency):

- Schools (CO, MA, MI, NV, OR, WA), Public health (AK, CA, CO, MA, OR, WA), Mental health/substance abuse (AK, CA, IL, MA, OR), Public Safety/Traffic safety (AK, CA, IL, OR), Research (CA, CO, MI, WA), Local Governments (CA, IL, MI, NV), Basic health/wellness fund (MA, WA) Roads (MI), Recidivism reduction (AK), Criminal Justice (IL)

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What's legal?

Amount

Type of products

Serving size and potency

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What is allowed to be in the products?

Key policy areas:

- Excipients/Diluents
- Flavors/Terpenes
- Other additives
- Solvents
- Contaminants

→ Product testing
→ Ingredient disclosure

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How are the products packaged?

Child-resistant packaging Do they appeal to children/youth

Plain packaging

26

How are the products labeled?

Universal Symbol Warning labels

Other considerations:
Font size, color, medical/health claims, endorsements

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Topics on Warning Labels in Adult Use States

	Keep away from children	Pregnancy/breastfeeding	Delayed intoxication	Driving/machinery/impairing	Addictive/dependence risk	General health risks	Unlawful outside of state	Smoking is hazardous
AK	x	x		x	x			
CA	x	x	x	x		x		
CO	x	x	x	x		x	x	
IL								
MA	x	x	x	x		x		
ME	x	x		x		x		
MI	x			x				
NV	x		x		x		x	
OR	x			x				
WA	x		x	x	x		x	x

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How is the market structured?

- License types
 - Producer/Processor/Retailer
 - Delivery
 - Event licensing
 - Onsite consumption
- Vertical integration
- Homegrow
- Local control

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What Requirements Exist for Retail Stores?

- Zoning setbacks
- Density caps
- Marijuana Only sales
 - No tobacco/alcohol
 - No paraphernalia
 - No other products
- Mandatory ID checks upon entry
- Sometimes co-located with medical
- Some states limit/restrict signage
- Curbside and/or online ordering

30


What information are people getting at the point of sale?

Daily Deals and Point of Sale Marketing...





vs

Posted warnings




Waping can be hazardous to your health



Colorado Department of Revenue



Budtender training



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Where are people allowed to consume the products?

Public and social consumption prohibited: ME, NV, OR, WA

Allowed but in violation of state law: MA

Allowed if locals allow (no state license): CA, IL

Allowed with statewide licensing: AK, CO, MI



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What advertising is allowed?

- **Setbacks:** In AK, CA, IL, ME, NV, WA: no advertising 1000 ft. from child/community-related locations
- **Retail store sign limits (#, time, size):** AK, MA, WA
- **Warnings on ads:** MA, ME, NV, OR, WA
- **Billboard restrictions:** CA, ME, WA
- **Some TV/radio/print/internet ads allowed** in all adult use states, w/audience restrictions
- **In all states:** cannot advertise health benefits, therapeutic effects, or make false statements; youth advertising prohibited (typically set by <30% of audience)



33


Social Equity



34

Impaired Driving

- Marijuana-impaired driving is illegal in all 10 states w/ adult use markets
- Five states (AK, CA, MA, ME, OR) have no per se laws in place for marijuana.
- MI has a zero tolerance policy.
- NV has a per se THC limit of 2ng/mL
- IL and WA have per se THC limits of 5ng/mL
- CO has "reasonable inference" for THC of 5ng/mL
- Policies on metabolites can differ



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Environmental considerations



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Reasons for varying and rapidly changing state policies?

- Learnings (from regulators, from industry, from public health)
- Politics and elections
- Situational changes (EVALI, COVID, etc.)
- Medical marijuana precedent

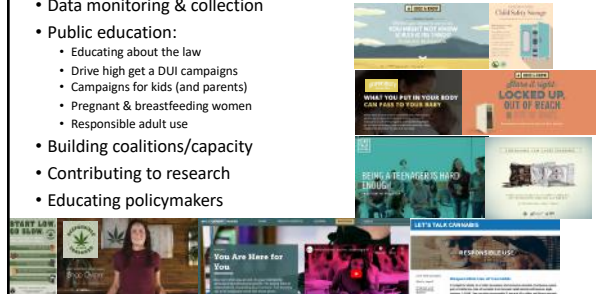
→ BUT: Copy & Paste phenomenon...



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What is public health doing?

- Data monitoring & collection
- Public education:
 - Educating about the law
 - Drive high get a DUI campaigns
 - Campaigns for kids (and parents)
 - Pregnant & breastfeeding women
 - Responsible adult use
- Building coalitions/capacity
- Contributing to research
- Educating policymakers



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Conclusions

- Still very early in this experiment
- Medical legalization sets a framework for adult use
- Few true best practices yet (but early lessons learned/recommendations)
- Important to look to other countries
- Look to other substance use policy, too – but adapt
- Regulating to protect public health and safety (may be at odds with other goals).

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Thank you!

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 206-819-9391



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Marijuana Legalization Workgroup Minutes
October 28, 2020
9:30 AM
Virtually via WebEx

Video can be found at: <https://www.youtube.com/watch?v=qzrEEpCETyU>

Attendees

Secretary of Agriculture and Forestry Bettina Ring
Secretary of Health and Human Resources Daniel Carey
Secretary of Public Safety and Homeland Security Brian Moran
Deputy Secretary of Finance Joe Flores
Holli Wood (Representing Attorney General Mark Herring)
Kristin Collins (Representing Tax Commissioner Craig Burns)
Colby Ferguson (Representing DMV Commissioner Rick Holcomb)
Charles Green (Representing VDACS Commissioner Jewel Bronaugh)
Caroline Juran (Board of Pharmacy)
Mike MacKenzie (VCU Wilder School)
Kristen Howard (Virginia State Crime Commission)
Nathan Green (Williamsburg-James City County Commonwealth's Attorney)
Jenn Michelle Pardini (Virginia NORML)
Travis Hill (Virginia ABC)
Ngiste Abebe (Columbia Care)
Dr. Sam Caughron (Charlottesville Family Wellness Practice)
Michael Carter (VSU Small Farm Outreach Program and small farmer)
Nour Alamiri (Community Coalitions of Virginia)
Richard Boyd (Virginia State Police)
Linda Jackson (Virginia Department of Forensic Science)
Heather Martinsen (Rep. Jennifer Faison, of the Va Association of Community Svcs Boards)

Secretary Ring called the meeting to order at 9:35 AM.

Brad Copenhaver called the roll.

Approval of Subgroup Meeting Minutes

Secretary Ring stated the minutes have been edited to identify staff with their titles and which secretariat they are with.

Minutes were approved by unanimous vote

Secretary Ring thanked everyone for their collaborative work and turned it over to Secretary Moran and Secretary Carey to add a few words.

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Secretary Moran stated this has been an excellent experience in such a short time frame and during a pandemic. He looks forward to hearing the recommendations. This is a long term process but the amount of work that has been doing in such a short time frame is remarkable.

Secretary Daniel Carey thanked Secretary Ring and Secretary Moran for their leadership. He stated that, as they work through this issue, it is key that all points of view are considered, there is thorough analysis and we keep our eyes wide open of what we are sure about and what we are unsure about. Continues to appreciate the relative certainty we have in the whole issue of legalizations. The work has been reflective of that complexity and nuance. This is not a simple topic and he looks forward to the recommendations.

Fiscal and Structural Subgroup Recommendations

Secretary Ring called on Charles Green, representing Dr. Jewel Bronaugh, and Travis Hill to give a report on the recommendations from fiscal and structural subgroup.

Green stated that the main item the subgroup looked at was the suggested regulatory structure. There seemed to be a general consensus that oversight and regulation of an adult use and medical marijuana program should be under one agency or an umbrella agency that covered both subject matters.

There was discussion about where other cannabis, such as industrial hemp, may fit in. At the last meeting he noted that the cultivation of industrial hemp is regulated by state departments of agriculture or USDA. However, the regulation of production and consumable products varies by state. It varies who regulates the manufacturing of food and beverage or dietary supplements of those states. There was discussion about oversight of those products from a consumer safety and knowledge standpoint.

They discussed the industry structure as related to the possibility of vertical integration. There were positive feeling towards the possible benefits of that structure, such as efficiencies that can be created. There are benefits of allowing but not requiring vertical integrations. It eliminates barriers to entry and possibly encourage participation of a more diverse set of stakeholders.

The next topic they discussed was licensing structure. They looked at examples from other states. Some states have an extensive list of available licenses while others have a more condensed license structure. Within the license categories many states segregate for example, in the grower category different sizes are licensed at different fee levels. Options like micro grower or craft cultivation licenses.

During their last meeting Travis Hill discussed ABC's challenges with having too many license categories. It can get confusing as to which activities are allowed. They also discussed options for blanket licenses.

It is important to have a clear and transparent license structure and it needs to consider social equity. There needs to be a measured approach to the initial licenses. It's easier to expand later than having it open ended and putting restrictions on later. There needs to be periodic evaluations of the program, so adjustments can be made.

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Mr. Green moved on to discussing taxation issues. In most states that have adult use program, the regulatory agency that runs the program is responsible for collection. In Virginia, where we have specialty taxes for very specific sectors, it is often the regulator of that sector that collects and taxation audits on a risk and random system. In a system like this, forward looking enforcement makes sure entities that are paying the taxes and primary regulator would conduct the collection and day to day.

There was discussion on program funding based on license fee and tax collected and what would be the best structure for funding operations of the program. They also noted the tax rate should be set so that the program is supported without encouraging an illicit market.

They discussed the possible agency organization for the responsible agency. The agency needs to be robust, well thought-out and have a strong management structure. They have examples and organizational charts from other states. There are a number of agencies that are complementary or continue to provide a support function. Care should be taken to make sure that expertise is not stripped out and given to primary regulator. Michael Carter made the point that social equity and inclusiveness and diversity should be a part of the hiring and staffing. The regulator should reflect values of social equity in industry.

Even with a primary regulator, support services from existing agencies and interagency coordination will be necessary. They recommended the consideration of a cannabis cabinet with agencies that will be affected as the program develops. It would form a formal or semi-formal structure of coming together to address issues and try to be as proactive as possible. The funding and startup of any regulator is going to need resources on the front end and not reliant on waiting for fees or tax revenue

He opened for questions.

Secretary Moran: To the taxation question, the workgroup recommends taxation at retail level. Is taxation exclusively at the retail level or is it intentionally left vague? Clearly, we will tax at retail level but recognizing there is growing and cultivation.

Green: From our research, the most prevalent tax was at retail level and there were fees collected for license at various stages. The fees were often used to run or fund the program. Taxes at the retail level were used for a variety of functions.

Ngiste Abebe: Another thing that came up was ease of collection, especially with the prospect of co-located medical and adult use. It gets more complicated when you collect taxes along the ways. At the plant stage you don't know if it is a medical and adult use plant.

Travis Hill: I would add, in the alcohol industry we tend to collect taxes primarily at wholesale level. It reduces tax payers and simplifies the approach. Where you put a tax in the system impacts how it gets passed on, who ultimately has to pay it and we have to be conscious of that. And the ease of collection.

Brad Copenhaver: There is still some ongoing work that is taking place to do some more economic modeling estimates of this potential industry. Mike Mckenize from VCU and the tax

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department work is doing some work with VEDP. That work is ongoing and is not ready to be presented but will be a part of the final report.

Legal and Regulatory Subgroup Recommendations

Jenn Michelle Pedini begin the presentation by stating that Virginia must allow for vertical integration. That is the only model we currently have and will have to be careful not to dismantle the only structure already in place when we add adult use.

The cannabis industry across the nation struggles with banking. States have to create patchwork solutions via in state banking options. That is something we will have to look closely at. That will be tantamount to success.

Equity is a popular topic now in the cannabis space and often looked at solely through the lens of licensing, as we discussed in great detail. Individuals who have been impacted by prohibition don't necessarily want to work in cannabis industry. Undoing the harms of prohibition is the priority. That will include efforts like expungement or further sealing of records, and could mean going further than the sealing associated with decriminalization legislation. Absent an expungement bill passed by the legislature, we will have to be creative with the solutions we are able to provide.

A social equity license is a component as well as providing access to resources for those communities historically impacted by marijuana prohibition. Providing reinvestment funds to those communities and monitoring the outcomes.

Local control is something that was of interest to the group. We've seen this play out in different ways across the country. More often than not there is the ability for local opt out. The group reviewed the provision currently in place for alcohol. In the case of alcohol, local opt requires a voter referendum. That is something we may want to emulate. We also don't want to allow businesses be relegated to certain communities.

We've seen where industrial area is where you see all the cultivation being done and we wouldn't want to have clusters burdening communities in Virginia.

This is touched on in health impacts as well but, we want to consider how products are regulated to ensure consumer safety. This means what is in the product and adopting industry standards for total content and serving sizes of an individual product and the total amount that may be dispense. As with the medical program, we'll want to apply the same safety standards for pesticide residues and other adulterants. We will want tamper evident packing and packaging that provides child safety mechanisms. QR codes are a great way for customers to see the retail establishment they are shopping in is legalized and regulated by the state. And, as with alcohol and tobacco, we want to make sure they are not marketed or appealing to children.

Personal cultivation is something we hear a lot about in Virginia since we have a rural area. Some states allow, some prohibit. Given the feedback we've heard, this is an important element for a program explored in VA. There is potential for issues related to cultivation, but this is

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typically something we would see in large scale operations for gray market sales. Adopting common sense standards that limit what can be cultivated for personal use would be ideal.

They moved on to discuss impaired driving. There is no science that supports a threshold for marijuana impaired driving. There is no a recognized per se limit because of the way THC is metabolized in the body. There are technologies being used to measure impairment as opposed to consumption. Staff heard from a company that specialized in that product. It provides an opportunity for VA to look holistically at impairment as opposed to new prosecutorial tools. Virginia should very quickly begin to collect more robust data about impaired driving as it relates to marijuana. If it is not done now, we will be a state that reports a drastic increase because we were not aggregating the data prior.

Impairment related to employment is critical. We need to look provide protection to employees who will potentially consume a product that is legal. This isn't a new topic and the state needs to consider what protections and rights we'd like to specify for employees and employers.

Health Impacts Subgroup Recommendations

Dr. Samuel Caughron reported that the subgroup has come up with a robust evaluation of the systems as they currently exist. There is really no consensus as the impact of public health and public safety in other states but there were a lot of recommendation. One of them is we need to be robust in our data collection to be able to get the data we need before we have legislation in place in order to realistically look at what the impacts are going to be.

Consumer safety is critical. Understanding and preventing harms and understanding what is responsible for use. The target is to prevent development of major substance issues and that directs itself to the 13-17 age group. They will be more impacted by potential advertising etc. Suggestions have been:

Require childproof and tamper-evident packaging whenever possible.

Consumer education at the point of sale.

Clear and standardized packaging with insert signage or QR codes.

Having trained people selling the products.

Using medical cannabis program as framework.

Making sure what you are getting what you think you are getting. Being able to test and make sure labs doing testing are consistent in what they are reporting is also key. To some extent we could also consider looking at the illicit market and diversions that may occur. Within the illegal market is where health issues will be present.

The amount of THC that an individual buy can vary by how it is given. We need to understand, to some extent, what people are getting. They may not know when they are buying. A per dose per serving per packaging or per sale limit is a consideration. The group strongly considered a tiered tax to disincentive high potency products—but potency caps can result in unhealthy additives which has been found in other substances.

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Cannabis use disorder is real and legalization will likely increase the demand for Substance Use Disorder treatment. We would like to see this added into the legislation to fund the kinds of support necessary for it. The behavioral health safety net is necessary to think about. It is already an issue. Illegal marijuana is already rampant but using tax revenue to invest in substance recovery is something that needs to be considered. Focus on behavioral health treatment and to invest in VA's Medicaid Addition and Recovery Treatment Services and community service boards. Support training for substance abuse identification for counselors, etc.

Nour Alamiri continued that while we are talking about legalization of adult use, we want to pay close attention to the potential impact on increased youth access. Early initiation of use increases the likelihood of problem use. One proven effective method is mandatory ID check at point of sale. Another is youth prevention efforts in community and school. This has been done with other substances through age appropriate SOL requirements.

We can also invest in support and education for those ages 21-26. We chose this age range because the national standard for age requirements is 21, however the ages between 21 and 26 is a vulnerable population. The brain is still developing and they are at high risk for use and misuse. We also want to limit proximity of dispensaries to schools and other youth focused places.

We want to minimize marketing to youth. One example could be not making it attractive with cartoons or leaf emblem. Marketing plays a big role in access. The common standard is that the audience for social media and billboards is 71% adults. However youth are still seeing it. All labeling should be standardized. Advertisements should be placed 1000 feet from schools and community centers.

The group wants to emphasize prevention and education; implementing public health campaigns to highlight negative implications for adult use and youth access. Increasing awareness that anyone can be victim of SUD or cannabis use disorder. Include risks for medical conditions, pregnancy and breast-feeding. Address potential interactions with other medications. We should invest in education of healthcare professionals and seniors. We want to identify vulnerable populations and tailoring it to the audience. Invest in holistic community supports and coalitions. As mentioned earlier, the group wants to emphasize the importance of data collection and emerging research.

Following up on what was touched on earlier regarding undoing the harms of criminalization. We want to ensure the benefits are equitable. We appreciated the importance of undoing past wrongs, but we also want to emphasize importance of making sure systems do not continue to be disproportionate. Recommendations include:

- Density caps to avoid over concentration of dispensaries in low income neighborhoods. Wealthier communities can be better to navigate zoning and other rules.
- Consider impact on evictions when setting policies.
- Target investments from taxation to those who are experiencing inequities of past criminalization of marijuana.

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We learned from Illinois that we should be including communities as part of the conversation so we are not creating for them but with them. Invest in diversion programs for justice involved population. We believe this will prevent cycle of recidivism. Monitor police activity data to be aware of disproportionate enforcement.

The group recommends maintaining VA's Indoor Clean Air Policy and include signage for designated areas of use and best practices like with tobacco use.

Catie Finley continued the workgroup presentation with a snapshot of presentations the group heard from data experts. As Gillian Schauer said, "there is a lot more that we don't know than what we know." In some areas there are not clear and comprehensive data on impact of legalization in other states.

What was agreed upon is the Cannabis Use Disorder is real and Dr. Thompson presented SUD impacts approximately 8.5 million Americans and a WHO reports says 10-25% of regular cannabis users may be susceptible to SUD. Early initiation of use is going to increase that.

Looking at data from SAMSA at HHS, approx. 1 in 10 will be addicted but if they starts before 18 it rises to 1 in 6. For reference, SAMSA data shows even greater percentage of alcohol abuse.

There are indications that adult use of the substance increases after legalization. In states that have legalized they have seen an uptick in young adults of daily or near daily uses---which can be important to look at. Dr. Thompson pulled a JAMA study from December 2018 that cited a moderate increase in use among youth in states that have legalized. We saw some general national data from 2002 – 2017, seeing uptick in adults and young adults in all states.

Another point of consensus with the workgroup was the benefits of bringing use into the light. There is some research that points to decreasing stigma under legalization could mean folks more likely come forward for treatment. Another consensus in the group, is that the public health costs of over criminalization and incarceration in Black and brown communities is a public health concern. Michael Carter cited that 53% of marijuana arrests are for Black and African Americans.

Data is not always what we want it to be in this area but those were some common themes.

She highlighted the more nuanced data they were presented:

When it comes to youth use, many presenters agreed prevalence stayed steady after legalization. However, nationwide a lot of other substance use is going down for that demographic. One presenter said there was an increase in teen use but overall, youth use consensus is prevalence stays the same but there are other factors that we need to look into.

We had a presenter for American College of Occupational and Environmental Medicine. They released a statement that said:

"States with legal recreational or medical marijuana are reporting an increase in fatal motor vehicle crashes involving THC."

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That statement is echoed in a Colorado report released in 2018. However, we also saw presenters who say when you look at correlations there is not a strong signal that there are increases with traffic fatalities involving marijuana.

Other areas where there seemed to be evidence in both directions is with opioids. There is some evidence and literature that folks are substituting marijuana for opioid use. They were not full randomized trials that confirmed that and looking back there are conflicting things if legalization reduces opioid use. Similarly, with gateway, we heard different statements about whether marijuana is a gateway drug. Dr. Schauer did say she did not find science behind it but there is science to support increase SUD if folks who use marijuana use other substances.

There is a need for data collection because we don't have clear consensus data on everything.

Discussion on Fiscal and Structural Subgroup

Dr. Caughron: If we consider letting individuals have a certain number of plants, how does that work?

Pedini: A number of states allow personal cultivation. Typically a number is set and it is for personal use only and not for retail.

Secretary Carey: One of the key points I took away was the importance of investing in making sure the infrastructure is there on the regulatory, monitoring and health side before the program goes live. I think as we enter this we want to do it very well and Virginia has been very thoughtful as it has embarked on new initiatives. I think not doing it well from the start and waiting until revenue comes in to then build structure is an important point the subgroup emphasized. I just wanted to applaud that. Perfection is not the goal but I think having robust resources and building infrastructure will be key.

Ring: That is true. We want to make sure it is done the Virginia way and done well. This will not be perfect from the start and will evolve if we do move forward. Appreciate the group being clear about having capacity building in place.

Pedini: Like to provide some context. As you may recall, the state did not afford us any resources to start our medical cannabis program and Board of Pharmacy did a wonderful job navigating that difficulty. With the expansion and adult use model we want to make sure we do have the resources from the beginning as opposed to working retroactively to support the program.

Secretary Ring: That can be challenging. Often our state agencies are called on to do that for various reasons. We want to make sure that we do our best to ensure the resources and expertise is in place.

Caroline Juran: I saw a recommendation to combine medical and recreational adult use program into a single or umbrella agency. I did see later some acknowledgement that expertise from other entities may be necessary to help ensure that the structure is being built appropriately. I want to note that, because we do have pharmacist, we will need to flush that out from a legal structure as to what is the role of Board of Pharmacy in a future regulatory oversight. While

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license the individual I'm not sure the Board of Pharmacy can uphold a pharmacist to a regulation we are not enforcing. We may not be able to have sanctioning or enforcement action. It is just as note as we work through any possible transitions or future regulatory structures. I am interested from a legal standpoint to make sure everyone has what they need legally to get their jobs done.

Ring: We know there are many nuances and discussions taken along the way. That will be captured in minutes and notes. That is an important piece to capture now so we don't lose that as we move forward.

Abebe: We have examples where, for example at a pharmacy inside of Kroger, The Board of Pharmacy can still monitor the pharmacist. We have precedent in other industries we can use to model for the future of Virginia's cannabis industry.

Brad Copenhaver asked if Mike Mackenzie or Kristin Collins would like to talk briefly about the process that we are looking at for economic modeling.

Mackenzie: We are working with VEDP and Department of Taxation. We are looking at estimates in other states where legalization or adult use has happened and the way those sales have broken down and estimating what we think sales might look like in Virginia and then tracing it backwards in supply chain that currently doesn't exist. It's important to note there are a lot of assumptions, in particular right now because we don't know exactly how the industry is going to look or how licenses will be limited or expanded. We are trying to come up with an understanding of sale estimates between 660 million to 2.5 Billion. What those impacts might look like or what the range might be. That is where we are with economic impact. The fiscal impact is a different calculation.

Kristin Collins: I can talk about the revenue impact. It's really difficult when we don't have specific data. What we have been doing is looking at a couple of other states that have more recently adopted of legalization and used population data and survey data on the number of users in state, even where it is illegal We've used that data to ratio. Two of the more recent states are Illinois and Michigan that we've been looking at. If Virginia were to adapt tax structure similar to these, here is a range of revenue in both an excise tax and the retail sales and use tax that would be collected. JLARC is going very specific detailed estimates and they have a consultants who has done this modeling in other states and has a very specific demand model built. The intent is we provide a more general detail estimate.

Caughron: Do we know how much the illegal market gets from sale of marijuana in VA?

Collins: No. that is part of the challenge. JLARC has been looking up information on that. Our estimate would not be able to be that specific because we do not have that information.

Abebe: On a quick search, Virginia counts for about 3% of the 60 billion illicit cannabis market in the US--about 1.8 billion in illicit cannabis sales in the Commonwealth of VA.

Brad Copenhaver asked Travis Hill to speak on ABC's experience with licenses as the decision making process may be similar.

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Hill: ABC started in 1934 we had 5 licenses and we got up to 170-180 different combinations from different business models and legislators passing bills to address specific business models. We created this market where very closely placed business in terms of structure had to obtain different licenses and it created confusion. We ended up reducing the number of licenses this past legislative session to try broaden the categories of what folks could do. For example, if a grocery store wanted to delivery and sell kegs they needed to get two piece of papers from the state. Instead we created one license that provides both services. As we approach licensing structure for cannabis we need to keep that in mind. Depending on how much you restrain activity under a license you will create need for multiple license and will create confusion. What you want to do is issue license to allow business to operate and provide services they feel they need to provide.

Secretary Moran: Jenn Michelle, you talked about the zoning and the avoidance of locating facilities in certain areas of the community. I'd like elaboration on that. Typically, it's a matter of local zoning, so what is state's role with respect to where you would site these locations? Is a retail selling marijuana similar to other retail or do they create a different zoning? In terms if cultivation, I've visited Colorado and seen a large grower and it was in an otherwise industrial area, and so if you could tease out the point you made.

Pedini: When we talk about concentration of cannabis retail and potentially even cultivation a good analogy would be a liquor store. We have communities that have a high concentration of liquor stores and then we don't see that in other communities. We would want to avoid replicating such a model that could ultimately be burdensome to those communities.

Moran: I agree. Not sure how the state does that versus local zoning. In terms of growers and cultivators, is it typically located in industrial zoning?

Pedini: Yes. Virginia has ample agricultural areas, rural areas where these cultivation facilities could potentially be located, but, of course, it's necessary they are accessible to trafficable areas for transport. To your question about different zoning, we already stepped in this with medical cannabis facilities. There are specific restrictions in place for those processors as it relates to locations near schools and clearly we would echo the same for any facility producing cannabis for adult or medical use. Ngiste may have more thoughts but other than providing that guidance in a regulatory capacity there were no specific zoning classifications.

Abebe: I'm not aware of a cannabis specific use permit. I think there have been instance based on localities, but we exist in pre-existing classes. For cultivation, those are typically in industrial area, which is better for cultivation zoning but trickier for patient access which is why we are excited about 5 additional locations. Instead of having patient come to a warehouse district.

What we have seen to help break apart our proximity restriction is a new retail site has to be x amount of feet from another existing cannabis site and it helps breaks up concentration.

One of the things I think is important—because we are talking about equity; we know when it comes to NIMBY-ism and the ability for a local community to organize to speak up, the ability is

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disproportionally in wealthier areas. And we want to make sure whatever standards are put in place are consistent so we are not unintentionally exacerbating disparities that already exist.

Moran: Another question for Jenn Michelle: You were involved in decriminalization bill last year. Do we have any data yet or did you all look for any data with respect to decriminalizations? That was supposed to bring an end to the incarceration and arrests and the disproportionate impact on the Black and brown population. Also the sealing of records. We are supposed to seal marijuana convictions. Was your group able to obtain any up to date information? And maybe Nate has anecdotal information.

Pedini: Are you asking about reduction in arrests and incarcerations?

Moran: Yes. Have we seen that? It is supposed to be eliminated.

Pedini: I'm sure we can submit FOIAs to request that information. It's worth noting that we have had follow up questions regarding incarceration. The decriminalization legislation did not provide direction on currently incarcerated individuals. We've received feedback from those involved cases prior to July 1 as to how it would be treated after July 1. There seems to be some confusion at the municipal level as to what the offense should be.

Moran: I think my office will have to work to get some of that data into this report to reflect the changes as of July 1. We were excited about that and hopeful it would eliminate the arrest, decrease incarceration and seal records.

Nathan Green: To answer the original question, no we don't have data. I can provide data for Williamsburg-James County and can talk anecdotally. Most offices started implementing the General Assembly's intentions well before July 1. Williamsburg was one of those places. All of pending marijuana cases between December 2019 and May 2020 were handled differently than they have been in the past. We found a code section that we felt did two things; modeled the idea of a civil penalty and it was a code section our clerk's office system recognized. When regular session ended we started amending all marijuana cases to smoking in car w/ a minor. That is a code section that carries a \$50 civil penalty. We started making those amendments, making individuals aware of the amendments and making defense attorneys aware that was our plan.

Starting in May, marijuana cases in our jurisdiction were handled in that way. My understanding is every commonwealth attorney's office may have done something differently with how they amended it but everyone started addressing cases differently prior to July 1 so someone from July 2 isn't treated differently than someone on June 30.

Anecdotally, I started to go to arraignments dates because as the summer went on we still had people charged with possession they were eligible for...but we were going to be making this amendment. Absolutely no one is being arrested for it. Anecdotally, I would say that no one is being charged. We have stopped seeing anyone come in on a summons for a possession of marijuana. Usually there are 4 or 5 on a docket and we are down to one every other week.

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Pedini: Record sealing did eventually begin. It was a little later than we intended and that process is still being executed by VSP and typically we only get marijuana arrest numbers once a year on the Crime in Virginia report but happy to work with your office to collect prior to that.

Moran: We'll look into that. That is something we will follow up on if we have time.

Nathan Green: There are people who are charged with new offenses since the General Assembly made their intentions clear but we also have a number of people that were charged and found guilty of marijuana possession within the past year and a large percentage are given 1st offender status; they can avoid a conviction by doing well on probation and doing education program and have the charge dismissed.

There are a number of people in that category where something went wrong, such as they had a probation violation and tested positive. Our office has started treating those individuals similarly to individuals charged presently. Have a number of people who were under first offender who were on probation when law change that are also getting the benefit of not being charged if they test positive but getting the civil penalty. And my understanding is most offices are handling it similarly. I've also been informed probation departments are no longer testing for marijuana use unless being specific ordered to by court.

Moran: The sealing delay was another victim of COVID pandemic and has been reinstated and we will promise to get as much information as possible to this group.

Jenn Michelle Pedini inquired about when they moved to the \$25 penalty, Nathan Green stated that they had already as of July 1. Pedini added that they are still getting reports that there is still testing being done weekly, and Green clarified he can only speak for it not happening in district 34.

Pedini: Brad and Catie, something we touched on early is distances. Should the state allow outdoor cultivation? There can be extraordinary difficulties when cannabis crops are located too close to each other. That has been handled differently from state to state but it's something that the state should consider; whether or not it chooses to provide guidance on proximity of cannabis crops.

Copenhaver: Yes, that is a concern and something we've dealt with on the hemp side. There is not an easy solution because the question becomes 'how do you take into account property rights and what someone can do on their own property'. What we have heard from ag stakeholders is that in most ag communities, communication between farmers happens pretty naturally. We'll have to look at this going forward. What are ways we can help increase the communication and make sure we know where these crops are and if there is going to be any cross pollination? It's a complicated issue that we've talked about and don't have an answer.

Charles Green: On the hemp side of things we like to follow the laws and other issues to prevent the state from coming in and setting restriction...in other states it's not just the across pollination issue. Land owners are aware of those issues...watching how other states handle this and adjudicate those type of issues.

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Caughron: When you say distance between providers, are you are talking about distance between plants?

Pedini: I was referring to distance between fields of cannabis plants that are being cultivated outdoors and the potential for cross pollinations.

Nathan Green: All the reports talk about youth and the delineation at that 21 year age mark. There was nothing in the report about what prosecutors are supposed to do with individuals possessing under the age of 21. In my mind I think there is a tobacco, alcohol and marijuana. There should be some consistencies and distinctions with these. Right now a 20-year-old in possession of alcohol, tobacco and marijuana has three different criminal sanctions and I ask us to consider some consistency there.

Pedini: The General Assembly has already reached consensus on this issue. 18-21 is the decriminalization measure. If they purchase in retail that is an infraction at the retail level but possession is possession and the legislature is clear, so we aren't looking to increase criminalization.

Nathan Green: To be clear, I am not suggesting increasing criminalization. Tobacco is treated differently than marijuana and tobacco is treated different than alcohol. Should marijuana be treated more like alcohol or more like tobacco? I don't know if we recognized the difference between possession of alcohol between someone who is 18 and someone who is 21. Are we making the same distinction with marijuana

Pedini: We will. Possession of marijuana up to 1 oz is a \$25 civil penalty and after 21 it would be legal and they would not have a penalty.

Alamiri: Question for Nathan Green. You all mentioned 18-21. What would happen to under 18 youth population? What would happen to them? I'm concerned about incarceration and potential impacts as they get older.

Nathan Green: At this point possession of marijuana under 18 is act of delinquency. The amount of remedies or steps the judge has to correct delinquency is fairly vast. A judge could issue detention order. I have not seen that. The judge could order community service, substance abuse treatment, or suspend a license.

Pedini: The legislature was presented with a comparative chart of a Child In Need of Services petition and delinquency. Delinquency affords more options than a CHINS petition.

Caughron: Is that record expunged at the legal age?

Nathan Green: Yes. They do it on calendar based on the birthdate. All of their juvenile record is expunged.

Health Impacts Subgroup Discussion

Alamiri: We had mentioned earlier making sure the policies instituted in terms of policing and law enforcement measures, remain consistent on the ground level and making sure there is no discrepancy between practices between municipalities.

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Specifically, this means making sure enforcement does not continue to be disproportionate. From a public health lens there can be unintended consequences on mental health for those Black and brown communities where, as the data shows, are being disproportionately being targeted. Making sure those practices stay consistent and patrolling measures are not disproportionate.

In our subgroup we discussed the important of ensuring mental health resources and support is affordable and accessible. Going into a legalized state, there is still opportunity for growth even before we get to that point. Making an investment in community boards, community coalitions and making sure those support resources are accessible to all.

Our concern was that marijuana legalization can't be a cure all, however this is an opportunity for us to be a leading force across the nation. Making sure our measures are thoughtful and our policies are comprehensive. If we can utilize tax revenue to reinvest in those communities, that would be an effective and sustainable measure to consider. We mentioned community reinvestment. What does that actually look like? It can seem 30,000 foot level but that investment would pay off in the long run in terms of substance abuse prevention. Investing money in education and housing. Having the community stakeholders at the table; we don't need to reinvent the wheel. There are community coalitions who have perfected their craft and investing in those organizations to support those communities would pay off in the long run.

Brian Moran: Bernie Cohen was my predecessor was a champion of the Clean Air Act. I tried to amend it myself when I was a legislature and things have changed around tobacco. Many of the reasons why we were successful in passing the Virginia Indoor Clean Air Act is because the dangers of second hand smoke dangers were science based. Other than the pungent order, what are its impacts? Can you speak to the dangers of second hand smoke?

Dr. Caughron: There is not that much information for second hand marijuana smoke, the biggest thing is potential bronchospasm associated with people who have asthma and lung problems. We don't have enough data to clarify if there is a lot of cancer associated with second hand marijuana smoke. The data simply isn't there.

Alamiri: I would add to that, on an environmental health level, having measures in place to designate areas where smoking is not acceptable or tolerated normalizes behavior. Without these measures people get sense they can smoke wherever and whenever. As it relates to youth seeing and being able to understand and access and normalize behavior can have unintended consequences. Making sure policies are clear and limits are put in place of distance from entrances or designated space would really help on the environmental health level.

Dr. Caughron: I think if we treat it the same way we do tobacco and there is no smoking in restaurants, etc, it doesn't take much for you to know marijuana is around as long as it being smoked. It doesn't mention it being eaten or other methods of consumption.

Ngiste Abebe: I think rules needs to account for patients who have medication on them, especially non smokeable formats, and the ability to take and maintain doses on a reliable schedule.

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We have a process for hookah lounges and cigar shops to facilitate responsible tobacco consumption in a social space. We have existing models that can be added to cannabis with the added factor for some folks, even patients, could be risking conviction if they have a cannabis tablet for pain management because of the nature of federal housing subsidies. There is a gap between state and federal policies.

Pedini: I agree with Dr. Caughron, it should be consistent with tobacco use. There should be a consideration for social consumption places or we will criminalize individuals who do not have access to an area where they can legally consume. Virginia will likely experience heavy travel related to cannabis as it would be novel in this area and we're a lot larger than DC--which does not provide for social consumption. We need to be able to provide solutions to mitigate what would be continued criminalization.

Secretary Carey: There is often a paralysis unless you have more and more data. Is there a top 5 data types the subgroup is looking for? I think about ER visits for intoxication secondary to cannabis use or DUI with cannabis.

Pedini: There are some bullet points in presentation but typically we'd look at ER visits, calls to poison control, DUID related to cannabis, and motor vehicle fatalities.

Secretary Carey: And that should be readily available to get baseline data.

Pedini: That is if we are applying the standard of testing universally, where that may be imposed post legalization and then you have that disparities data that isn't looking at reality

Carey: Maybe have data standards as we enter the program?

Pedini: Yes. We see in other states, they say post legalization cannabis related fatalities tripled but they didn't test data prior.

Finley: What we pulled for recommendation is from a presentation by the Prevention Council in Roanoke and they've been looking at this issue of data. The other thing include in our recommendation is good baseline data use rate and treatment data by drug.

Pedini: There was language that identified 'psychoactive cannabinoids', which was meant to include intoxicating cannabinoids. What we care about from a consumer stand point and already require in medical regulations is the ID of all primary cannabinoids. The concern is what is in there and what may or may not cause intoxication.

Secretary Ring turned it over to Brad to discuss next steps.

Copenhaver stated that staff will take all the recommendations and combine them with presentations, data and the conversations that they've had in minutes and videos and put together for a final report. They will work at secretariat level on drafting final report which is due Nov. 30. They will call or e-mail for clarification and additional information as they get into the drafting of the report.

Final Consideration of Recommendations

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Red: uncomfortable

Yellow: comfortable with some recommendations

Green: totally comfortable

Travis Hill: Would they need to state reason for concern if they say yellow?

Copenhaver: It would be helpful to express what the concern is so we can go back and make sure we reflect that in the final report.

Roll Call

Ring: Green

Joe Flores: Yellow. Would like to see it all in writing.

Carey: Green

Moran: Green

Holli Wood: Green

Kristin Collins: Green

Ferguson: Green

C. Green: Green

Juran: Green

Mike Mckeznie: Green

Howard: Abstain. Want to have crime commission input before making vote.

N. Green: Yellow with regards to the inconsistent treatment of individuals 18-21. Green to everything else.

Pedini: Yellow. Pending final report.

Hill: Green. Only call out is where the taxes are collected needs to be sorted out and examined.

Ngiste: Yellow, pending final report.

Caughon: Green

Carter: Did not answer roll call.

Alamiri: Between green and yellow, pending final report. Would like to read thoroughly how investment how in public health, education and prevention measures will be taken. From the presentation there seems to be emphasis on importance of but I'd like to see more specifics.

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Martinson: Yellow, because of unknowns around revenue and where it would be going. Prevention and education needs to be tagged. Really focus on time between any legislation that passes and implementation. States that have done this well have given sectors time to prepare.

Boyd: Yellow, pending final report.

Jackson: Green. The only place I'm yellow is the discussions around drunk driving that have been had.

Public Comment

Megan Dolecki

I am just hoping to speak on pre-employment drug testing. I am a registered cannabis patient and I was let out of my job due to.... I am fortunate to receive unemployment, Medicaid and other social services... prescription punted my dream job out of reach....not pass pre-employment drug screening. But it's not just my dream job that is...when I submit for unemployment benefits I must certify that....despite my prescription being medically sanctioned I'd lose unemployment benefits.

My auto loan is covered by unemployment insurance and my benefits from the VEC are a requirement for that insurance to cover payment I am unable to make and without those benefits, my loan falls to collection, my vehicle would be repossessed and my credit would be garbage. The monetary determination letter is also food assistance and subsidized childcare so I can go to medical appointments interviews. I wish my only concern was not getting hired back into the career path I perused prior to the pandemic. I fear the loss of our only vehicle in a city without robust public transit, I'm concerned about food security and all because of medication I was prescribed I'd like to see employment protection for medical cannabis parents just like me. And I know I'm not the only one.

Elly Tucker

I would like to thank panelist and participants for all the work you've done these past 4 months, it's been so interesting as a Virginia medical cannabis patient to learn about the process of having this possibly going for legalization and I would like to encourage you to keep working towards this, even with all the yellows because it is worth it. It has brought so much relief already to the Virginia medical cannabis community and now the next step needs to be the legalization. You are going a great job of finding all the issues that other issues related to legalization that other states have found out and we can benefit from them going before us. I also wanted to push for botanical cannabis because I know in the medical program we do not have access to that and that has been something a lot of have asked for because of the reliability, they know the dosage. Also we need more dispensaries; we drove from Charlottesville to Bristol, a 4 hour drive, for a one appointment and I know there will be more dispensaries and I do encourage you to keep dispensaries coming.

Paul McLean

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I want to commend everyone involved in this process, it's been eye opening and educational. I am founder of Virginia Minority Cannabis Coalition and it has been eye opening to see how Virginia is looking to not just create a new industry but build a new industry that has the ability and opportunity to grow organically within state policy. Mainly, I've commented at other meeting to let you know our organization has written several papers in regards to several topics that have been discussed. I have one paper I'd like to submit to be included in public comment section because it covers several components of what has been discussed in regards to creating a new industry that has entry points for social equity application to grow and expand outside their community in regards to funding, marketing experience. All those will all be instrumental in business thriving.

Brad, am I able to submit that to you through e-mail?

Brad confirmed it can be submitted he will include it as part of record. Anyone who would like to submit anything can submit using contact info on website.

Secretary Ring adjourned the meeting at 12:10 PM.



Virginia Marijuana Legalization Work Group

As required by
2020 Acts of Assembly Chapters 1285 & 1286

Third Meeting
October 28, 2020

AGENDA



Call Roll

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Legal and Regulatory Subgroup
Report

Approve Minutes of 9/16 Meeting

2

6

Health Impacts Subgroup Report

Approve Subgroup Minutes

3

7

Group Discussion

Fiscal and Structural Subgroup
Report

4

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Finalize Recommendations

Public Comment

9



Approval of Minutes

9/16/2020 Full Group Meeting
10/15/2020 Fiscal/Structural
10/20/2020 Health Impacts
10/20/2020 Joint Subgroup
10/21/2020 Legal/Regulatory
10/26/2020 Fiscal/Structural

Fiscal and Structural Subgroup Recommendations

Regulatory Structure

- Virginia should consider either putting its cannabis regulatory structure under one agency or an umbrella agency to cover both adult use and medical marijuana
- There has also been discussion about including regulation of industrial hemp and/or hemp-derived products intended for human consumption under this agency
- It was pointed out to the group that other states either regulate hemp cultivation via their department of agriculture or let USDA regulate it. There was some agreement that there is additional oversight needed on hemp derived products from a consumer safety standpoint.

Fiscal and Structural Subgroup Recommendations

Industry structure

- Virginia should consider allowing but not requiring vertical integration within the industry

Fiscal and Structural Subgroup Recommendations

Licensing Structure

- Virginia should consider a license structure that includes various steps of the industry supply chain, including but not limited to:
 - Grower
 - Processor
 - Distributer/Transporter
 - Wholesaler
 - Retailer
 - Delivery
 - Social Consumption/Hospitality

Fiscal and Structural Subgroup Recommendations

Licensing Structure

- Virginia should consider a social equity license category as other states, such as Illinois and Massachusetts have done
- Virginia should be very thoughtful about how to set up this license structure and should consider what will work best for businesses and be the easiest to understand
- Virginia should consider a measured approach for the number of licenses in each category at first and evaluate the program on an annual basis
- License fees should not be an insurmountable barrier to entry, especially with social equity licenses, but Virginia should consider what license fees would cover versus what a cannabis-specific excise tax would cover
- Virginia should consider the best way to have transparency in the licensing process

Fiscal and Structural Subgroup Recommendations

Taxation

- Virginia should consider taxation of product at the retail level, and the cannabis primary regulatory agency would likely be best positioned to collect this tax
- Taxation could include different levels based on the type of product
- A tax rate should be high enough to cover costs of the program to provide consumers with certainty that products are regulated and safe (e.g. free from adulterants) to consume and to cover any other revenue goals Virginia has—however, the tax rate should not be so high that it encourages a thriving illicit market

Fiscal and Structural Subgroup Recommendations

Agency Organization

- Virginia should build a robust agency structure with various functions to regulate a new legal adult use marijuana industry. This could include:
 - Licensing and registration staff
 - Auditing and Investigation Staff (law enforcement background)
 - Financial Analysts/Financial Processing
 - Data Analysts
 - Software provider: Seed to Sale Tracking System
 - Scientific or laboratory
 - Internal Support positions – (i.e. Human Resources, FOIA)
 - Areas to address outside of the primary regulator:
 - Tax Revenue Collections
 - Other Law Enforcement
 - Liaison Positions: pesticides, food safety, weights and measures

Fiscal and Structural Subgroup Recommendations

Agency Organization

- Virginia should look to other agencies, such as the Board of Pharmacy and Alcoholic Beverage Control, for guidance on how to best organize
- Virginia should create regulatory authority for the agency to establish a program and appropriate funding, as opposed to developing the program based on tax revenue and fees.
 - Recognition that up-front funding and established FTEs will be critical to start a program before license fees and tax revenues materialize
 - Consideration of a Cannabis Cabinet of agencies or Secretariats mandated to come together on a regular basis for updates and address challenges of program start-up to alleviate the potential “red tape” that could be experienced bringing multiple state agencies together working with different regulatory authority.
- The report should work with staff to develop cost estimates for establishing new agency structure, including relevant timelines

Legal and Regulatory Subgroup Recommendations

Regulatory Structure

- Virginia should consider either putting its cannabis regulatory structure under one agency or an umbrella agency to cover both adult use and medical marijuana
- Virginia should consider allowing but not requiring vertical integration within the industry

Legal and Regulatory Subgroup Recommendations

Banking

- Banking is a critical component of having a successful industry, from access to capital standpoint to banking services.
- Virginia should explore options to allow the marijuana industry to conduct business with financial institutions, including state-chartered banks and credit unions.

Legal and Regulatory Subgroup Recommendations

Social Equity

- Undoing the harms of criminalization should include expungement or sealing of criminal records
- Social equity licenses
- Assistance with access to capital and business planning
- How the entire regulatory scheme could affect barriers to entry into the industry
- Community reinvestment and monitoring with a disparity report

Legal and Regulatory Subgroup Recommendations

Local Control

- When possible, local input should be considered regarding where marijuana retailers and social consumption sites can operate.
- Virginia should also consider how businesses could cluster in certain areas or neighborhoods and potential externalities of zoning for these businesses.

Legal and Regulatory Subgroup Recommendations

Product Issues and Composition

- Virginia should consider regulating the composition of products, in addition to cannabinoid limits for serving sizes and whole products. This could include product composition safety measures, such as pesticide residues and other adulterants.
- Packaging requirements—tamper evident, with a way to verify they are consuming a legal and regulated product (e.g. QR codes), and educating consumers on using those codes.
- Prohibit marketing to children.

Legal and Regulatory Subgroup Recommendations

Personal Cultivation

- Some states allow personal cultivation, and there are substantial pros and cons. We should consider that this product is much more valuable than other controlled products, such as beer, that are allowed to be produced in home settings. There is also an element of personal danger and risk because of the electrical and insulation needs for indoor growing.

Legal and Regulatory Subgroup Recommendations

Impaired Driving

- There is not yet a simple, straightforward answer on how to deal with impaired driving. Some states use per se limits, and some use other methods to determine impairment. Virginia should continue to explore new technologies and methods in this space.
- Virginia could also work to collect more robust data about marijuana-related impaired driving on the roads of the Commonwealth.

Legal and Regulatory Subgroup Recommendations

Impairment related to employment

- This is also a complex question, but Virginia should consider the rights of both employers and employees when crafting policy around being impaired at work. Workplace safety is paramount, but Virginia should consider how policies could affect adults who are using a legal product.

Health Impacts Subgroup Recommendations

There is a lack of consensus on how marijuana legalization has impacted public health and public safety in other states. Additionally, information on the health benefits and risks of marijuana use is emerging.

- Begin collecting baseline data before the legal market opens (e.g. poison control center, emergency room visits, driving impairment, youth use rates, treatment data by drug.)
- Invest in both data collection and research.

Health Impacts Subgroup Recommendations

Consumer Education is Safety is critical for preventing harms and encouraging “responsible” use.

- Require child-proof, tamper-evident packaging. Include single serving packages whenever possible, as well as child-resistant packaging for multi-use products.
- Require consumer education at point of sale,
 - Includes clear and standardized packaging, inserts, signage, and a QR code.
 - Required training for retail associates.
- Using medical cannabis program as a framework, require third-party lab testing and consider reference lab (best practice learned from other states).
- To the extent possible, track movement into the licit market and diversion through a robust seed-to-sale system

Health Impacts Subgroup Recommendations

High amounts of THC may make individuals more susceptible to substance use disorder and individuals should have a clear understanding of THC amounts.

- Adopt per-dose/per-serving/per-package THC limits, as well as per-sale limits, being mindful of practical consideration for certain products.
- Strongly consider a tiered tax system, similar to Illinois, to disincentivize use of high potency products.
- Potency “caps” may result in higher levels of unhealthy additives in certain products.
- Make sure regulations are inclusive of all psychoactive cannabinoids (e.g. both THC-9 and THC-8).

Health Impacts Subgroup Recommendations

Cannabis Use Disorder is real, and legalization will likely increase and change the demand for substance use disorder treatment.

- Assess marijuana-related services in the current safety behavioral health safety net project and prepare for impact of legalization.
- Tax revenue should be used to invest in substance use disorder treatment and recovery services.
 - Focus on behavioral health treatment programs for justice-involved population.
 - Invest in Virginia Medicaid’s Addiction and Recovery Treatment Services (ARTS) and the community services boards (CSBs).
 - Support training for SUD identification and intervention for touch points (e.g. counselors, primary care physicians).

Health Impacts Subgroup Recommendations

Early initiation of use increases the likelihood of problem use, so we should focus on addressing youth impacts

- Require mandatory ID checks (most states have done).
- Increase youth-focused prevention efforts, both in communities and schools.
 - o Build off current behavioral health SOL requirement and include age-appropriate marijuana education.
- Invest in supports and education for individuals 21-26. The subgroup recognizes that the national standard for age requirements is 21, but also notes that of individuals 21-26 are vulnerable to both use and abuse (due to life stage, developing brain).
- Limit proximity of dispensaries to schools and other youth-focused places.

Continued on next slide

Health Impacts Subgroup Recommendations

Early initiation of use increases the likelihood of problem use, so we should focus on addressing youth impacts

- Minimize marketing to youth.
 - o Common standard is that audiences of billboards, social media, etc. must reasonably be expected to be 71% adults.
 - o Products not attractive to youth, e.g. no cartoons, leaf emblem on certain items.
 - o Standard packaging/labeling/THC symbol (see consumer safety above); packaging and products not attractive to youth.
 - o Advertisements must be a certain distance (e.g. 1,000 feet) from schools and community centers.

Health Impacts Subgroup Recommendations

Prevention and Education is critical.

- Implement public health campaigns to highlight negative implications.
 - Include awareness that anyone could be at-risk for substance use disorder.
 - Include risks for those with have certain mental health conditions and those are pregnant are breastfeeding.
 - Address workplace and driving impairments and interactions with other medications.
- Invest in education that includes youth (see above), but should also include healthcare professionals and seniors.
- Invest in holistic community supports and coalitions that address both economic supports and social determinants of health.
- Regularly review and update information given emerging research.

Health Impacts Subgroup Recommendations

Reform should address and, where possible, “undo” harms of criminalization

- Ensure benefits of legalization are equitable.
- Include density caps or similar mechanisms to avoid an over concentration of dispensaries in low-income neighborhoods, recognizing that wealthier communities are better equipped to navigate zoning and other rules.
- Consider impact on evictions when setting policies, especially for those in government housing. Social consumption sites provide everyone with a legal place to consumer marijuana.
- Target investments to those who are experiencing the inequities of past criminalization of marijuana.
 - Could use an model similar to Illinois grants – should include community stakeholder engagement, including minority institutions.
 - Could invest in diversion programs and services for justice-involved population, especially upon re-entry.
- Monitor police activity data to be aware of disproportionate enforcement.

Health Impacts Subgroup Recommendations

We should maintain Virginia's Indoor Clean Air Policy.

- Marijuana laws should be consistent with Virginia's Indoor Clean Air policies for tobacco.
- Similar to tobacco, identify distance from building and include signage for designated areas for use.



Group Discussion



Public Comment

2 Minutes for Each Commenter

Pre-registered Commenters First

Additional Public Comment After if Time Allows
Use "Raise Hand" Feature to get into the Queue
Or if Calling in, Press *3

Please Begin by Stating Your Full Name and
Organization



Virginia Marijuana Legalization Work Group

Public Comment

October 28, 2020

2:00



Adjournment



The Honorable Bettina K. Ring
Secretary of Agriculture and Forestry
Patrick Henry Building
1111 East Broad Street
Richmond, Virginia 23219

October 13, 2020

Dear Secretary Ring,

Thank you for the opportunity to provide input as Virginia evaluates legalization of adult use cannabis, implementing major criminal justice reform, and the development of a regulated and taxed system of cultivation and sale. The products we design and sell have one thing in common, they help people express themselves by gardening and growing plants. As the leading provider of nutrients, plant supplements, growing media, air filtration and lighting used for hydroponic and indoor growing, our company is unique in its ability to help people who choose to produce cannabis authorized under state-law.

With the legalization of hemp almost every state in the nations has elected to end prohibition of cannabis and adopt alternative means of regulating its production and distribution within their jurisdiction. Their ultimate objective is responsible production, distribution and consumption of cannabis and combating illegal drug abuse. There are now roughly 15,000 licensed cannabis businesses in the United States, 200,000 people employed in the industry, and more than 2 million medical cannabis patients served under these state laws.

Assuming the cannabis industry continues along its current growth trajectory, the total number of people employed in the field will reach 300,000 by next year, which matches the number of people employed by data processing and hosting companies, medical and diagnostic laboratories and ambulatory health care services.

Cannabis is creating a legitimate income stream for state and local governments. According to New Frontier Data, medical and adult-use cannabis sales generated \$745 million in tax revenue in 2017. By 2020, tax revenues from cannabis could grow to \$2.3 billion in legalized states. This past Spring Colorado officials celebrated tax revenues surpassing \$1 billion since the start of the regulated and tax adult use system.

At the state level we have an opportunity to learn from the successes and challenges of the states that have implemented adult use and medical cannabis programs. In states that allow for cannabis production, we support thoughtful regulatory programs that enhance the availability of cannabis, create stable economies and work to eradicate the illegal market for the product. This means setting up markets with fair licensing systems that provide opportunities for communities



historically impacted by criminalization of marijuana, are demand based and provide opportunities for large and small businesses alike. States should also honor the ability of consumers to participate in the industry by growing a limited number of plants annually for their own personal use and employing a sensible approach to taxation and regulation.

We would like to take this opportunity to offer suggestions relating to several issues that will arise as Virginia moves forward. This is by no means an exhaustive list and we will certainly be happy to provide additional input. In this document, we would like to offer our thoughts on topics such as:

- Equitable access to licenses;
- Fair taxation that creates a competitive marketplace;
- Permit personal cultivation with appropriate protections;
- Municipalities empowered to control time, place, and manner;
- Dept. of Agriculture oversight of plant cultivation; and
- Require odor control technology for indoor cultivation, manufacturing & consumption sites to reduce nuisance complaints
- Energy Use Limitations

Equitable access to licenses

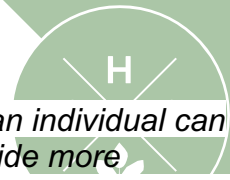
Small and medium size businesses dominate the world economy and according to the World Trade Organization small-and medium-sized enterprises represent over 90 per cent of the business population and 60-70% of employment. This is not different for the emerging cannabis economy and states are setting up their programs to support licensing structures in order to prioritize this type of market place and providing more opportunities for a diverse economy. Virginia should prioritize small and medium size businesses, not monopolies and should base the number of business licenses on consumer demand.

Suggested legislative language.

The department shall issue state license types for cultivators, retailers, testing facilities, processors and microbusiness.

Cultivation operations should be defined by sizes; class A marijuana grower authorizing cultivation of not more than 100 marijuana plants; class B marijuana grower authorizing cultivation of not more than 500 marijuana plants; and class C marijuana grower authorizing cultivation of not more than 2,000 marijuana plants.

A microbusiness is allowed to grow up to 150 cannabis plants, process cannabis into concentrates, edibles, or other infused products, package the finished products, and sell to adults who are over the age of 21.



States can promote diversity in ownership by limiting the number of licenses an individual can hold at one time. In addition, the state can limit the initial license sizes to provide more licensing opportunities for applicants and a more level playing field for startups. For 24 months after initial licensing the department may only accept applications for licensure: for a class A marijuana grower, retailers, testing facilities, processors and microbusiness from persons who are residents of Virginia.

Appropriate Taxation

While it is estimated that tax revenue in the U.S. from cannabis could grow to over \$2B in 2020, it is important that Virginia establish a tax rate that encourages the use of the legal cannabis market while simultaneously discouraging consumers from utilizing the illicit market. We believe Virginia can learn from the experiences of Colorado, Oregon, Washington and California as they established their own regulated taxed systems. After a state sponsored study verified that consumers were still frequenting the illicit market due to a high tax rate, the State of Colorado adjusted their tax rate lower. Colorado has benefited and recently surpassed one billion dollars in total tax revenues collected since adult use was legalized.

Personal Cultivation

We know that some of our consumers use our products to grow cannabis for their personal enjoyment or for the plant's medical benefits. Several states allow for personal cultivation at home or for cultivation in cooperative groups allowing them to share efficiencies of scale to produce the cannabis they desire for medicinal or personal consumption. This approach has proven successful in providing an affordable mechanism to obtain cannabis, allowing patients to grow the cannabis that best treats their conditions. It also facilitates safe production of plants containing only those inputs the grower desires. In several states where local governments still prevent licensed businesses from operating, personal cultivation provides a legal pathway to marijuana over continued solicitation of the illicit market.

Suggested legislative language:

Within a person's residence, possessing, storing, and processing any marijuana produced by marijuana plants cultivated on the premises and cultivating not more than 12 marijuana plants for personal use, provided that no more than 12 marijuana plants are possessed, cultivated, or processed on the premises at once; Plants must be kept in a locked space on the grounds of the private residence not visible from the public right-of-way.

Municipal Control

Overly-restrictive local bans and zoning rules have been used to limit market access and inflate costs. This both drives consumers to the illegal market and undermines the state-regulated system. This is why we believe states should ensure local governments allow state-licensed cannabis businesses to



operate in their jurisdictions. States should adopt measures that allow local governments to address legitimate public health and public safety issues while ensuring the illegal sales are not perpetuated in place of state authorized sales through overly-restrictive zoning requirements.

Local governments should be allowed to regulate time, place, and manner but not completely opt in or out of allowing businesses into their borders. Preventing licensed and regulated businesses from operating allows the illicit market to thrive. California is an example of this, 70% of municipalities still are not allowing licensed legal marijuana operations to operate in their borders. As a result, consumers continue to use illegal pathways to obtain marijuana products.

Department of Agriculture Regulation

The Virginia Department of Agriculture and Consumer Services is the lead state agency in the regulation of the agriculture industry. VDACS possesses the personnel and expertise to lead Virginia's effort to permit commercial and personal cultivation of cannabis. Experience in other states has shown us that the state agency overseeing agriculture is best positioned to handle oversight of cultivation due to their staff's experience working with crops, plant health experts, toxicologists, and other plant health professionals.

Odor Control

Odors from manufacturing and farming operations are common community concerns. Technology exists that can mitigate odors and eliminate complaints for many operators that set up their facilities with proper management and measures.

Suggested legislative language:

All cannabis operations shall be sited and operated in a manner that prevents cannabis odors from being detected offsite. All structures used for cannabis operations shall be equipped and maintained with sufficient odor mitigations systems to prevent cannabis odors from being detected offsite, as follows:

- 1. Each odor mitigation system used in a structure shall be sized appropriately for the volume of the room or rooms for which it mitigates odor emissions, and shall have a rated air flow capacity of cubic feet per minute that is equivalent to that volume, unless otherwise authorized by the department.*
- 2. Each odor mitigation system shall be maintained in working order and shall be in use at all times. Consumables, like filters, used by the odor mitigation system shall be replaced in accordance with the manufacturer guidelines, unless otherwise authorized by the department.*

Energy Use Limitations

Climate controlled agriculture uses complex and integrated systems to create the best growing environment for growers to produce healthy plants and maximum yields. Several well intentioned states have tried to implement energy efficiency standards, however, these restrictions for lighting



and dehumidification fail to account for the current state of technology and the biological factors required to produce healthy plants. Lighting manufacturers have made many advancements in this space and LED technologies are emerging that will help improve energy efficiency in indoor growing. If the state is concerned about energy efficiency impacts we recommend the state create a task force to evaluate and recommend steps to address these concerns as technology continues to evolve and statutes cannot nimbly evolve with.

We applaud the working group for taking the time to learn more about this issue and how Virginia can install major criminal justice reform while creating a new economy. As an American company with over 150 years of business experience, we have many unique insights about this emerging industry and would be happy to continue sharing those perspectives as you continue to consider legislation in Virginia.

Sincerely,

Brian Herrington
Director of Government Affairs

Appendix 4

Fiscal and Structural Subgroup—Meeting One Minutes

August 17, 2020

11:00 AM

Virtual Meeting

<https://www.youtube.com/watch?v=HdPSCqcgZnw>

Meeting Attendees:

Secretary Brian Moran

Deputy Secretary Brad Copenhaver, on behalf of Secretary Bettina Ring

Assistant Secretary Heidi Hertz (*taking notes*)

Assistant Secretary Catie Finley, on behalf of Secretary Daniel Carey

Jenn Michelle Pedini (Virginia NORML)

Commissioner Jewel Bronaugh (VDACS)

Kristin Collins (Tax Department), on behalf of Commissioner Craig Burns

Ngiste Abebe (Columbia Care)

Nate Green (Virginia Association of Commonwealth's Attorneys)

Dr. David Brown (Department of Health Professions, on behalf of Caroline Juran)

Mike MacKenzie (VCU Wilder School Center for Urban and Regional Analysis)

Michael Carter (VSU Small Farm Outreach Program and farmer)

Colby Ferguson (DMV), on behalf of Commissioner Richard Holcomb

Linda Jackson (Department of Forensic Science)

Richard Boyd (Virginia State Police)

Deputy Commissioner Charles Green

Joe Mayer (Tax Department)

David Barron (Department of Forensic Science)

Deputy Secretary Copenhaver began the meeting at 9:00 AM.

Select Subgroup Chair and Vice Chair:

- Co-chairs VDACS Commissioner Dr. Jewel Bronaugh and ABC CEO Travis Hill (Mr. Hill was not present at the meeting but had expressed interest in serving in this role)

Roll Call Vote: 9 yes, 0 no

- Unanimous in favor of two co-chairs

Group Discussion of Potential Policy Questions:

Deputy Secretary Copenhaver reminded the group of its charge: What are the fiscal implementations for the state if adult use marijuana is legalized? Where in state government will these regulations fall and who would be responsible for implementing a marijuana program?

The following is a summary of the discussion during the meeting regarding potential topics and policy questions that the members brought up.

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- Seed to sale tracking system- important for identifying markets (who is growing what, where)
- Types of positions for program oversight
- Agencies identified to take charge- umbrella agency/group established or multiple agencies with oversight
- Number of positions (FTEs) and costs associated with the positions
- Colorado, Oregon, California- various structures put in place, fee structure established some state programs have obtained state funding
 - Colorado: new agency established
 - Oregon: used existing agency structure, under liquor control commission (59 positions)
 - California: split model between agencies
- Additional states to review- Illinois, Massachusetts
- Other areas for potential oversight/regulation specifically for department of agriculture
 - Pesticides use/misuse
 - Food safety concerns
 - Weights/Measures and regulating scales
 - Plant tests, invasive species
 - Administrative support for other agencies involved
- Centralized regulator
 - Has allowed for 1 entity to continue to focus on cannabis compared to “shared” between agencies/groups having other things to focus on (ex. COVID19)
 - Provides dedicated time and effort
 - JLARC is exploring with contractor
 - DHP in favor of centralized regulator and sees role for overseeing medical marijuana program. Would capture funding for BOP through permit fees.
- VA Current status: BOP regulating medical cannabis and VDACS regulating industrial hemp, requires General Assembly to interface
- Fiscal implications- need to consider various funding mechanisms for positions and services that are related to the industry, some funding in states available through licensing and fees, need to consider services that are not fee-for-service (ex. Weights and measures)
- Fee structure
- Social equity lens related to fees- Provide capital to applicants (ex. Illinois set up model that reduced and waived fees to social equity applicants, state funding available.) Provide technical assistance for social equity applicants. Assist those that have been systematically disenfranchised through the previous process and policies.
- Adult use cannabis retail system- how will it look? Similar to state-run liquor distribution in VA (while operating under federal prohibition and impact on social equity participants) or privatized?
- Economic opportunity related to adult-use market.
- Locality-role- “opt in or opt out” to allow businesses within the locality, forego revenue generated, will have implications for state licensing
- Taxation rates on retail sale- considerations higher the tax rate the larger amount stays in black vs legal market, who is responsible for the tax? (Retail level), price sensitivity and

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demand which influences who purchasing the product. Important to determine what the demand would be in VA- monthly usage, assumptions about the black market, age restrictions, compared to surrounding states, what products subject to the tax? (Everything? Edible products only?)

- Tax revenues dedicated for other programming- Could the tax revenue assist individuals and entities impacted by the prohibition?
- Co-locating adult use and medical cannabis programs- prioritize medical use for supply while allowing for changes in medical products and use to allow for dose flexibility, product changes. Ex. Illinois “menu” for medical use vs adult use, some products are allowed for both, some only for medical use (through prescription). Applying the existing policy- medical would be treated differently than recreational.
- Tax impact- sales, demand, reduced costs of incarceration, reduced cost of enforcement. JLARC is also reviewing with consultant.
- Themes across both committees- recommendations from this group and health group will dictate which areas of the Code need to be addressed

Group Discussion of Stakeholder and Subject Matter Expert Engagement:

- Continue communicating with JLARC
- Hear from others states: Massachusetts, Illinois
- Share specific pros/cons of other state programs
- Should be thinking about what the final report should look like recommendations for moving forward? On the other hand, presentation of a list of things to be chosen from?
- **Secretary Moran:** We should look into other states and learn from them

Deputy Secretary Copenhaver told the group to be on the lookout for an email with further information about a future meeting—trying not to meet during the Special Session.

Public Comment:

- **Anne Leigh Kerr (Scotts Miracle Grow/ Hawthorne Gardening):** They are happy to participate and provide information that they have already collected.

The meeting was adjourned at 12:20 PM.

Appendix 5

Fiscal and Structural Subgroup—Meeting Two Minutes

September 11, 2020

1:00 PM

Virtual Meeting

<https://www.youtube.com/watch?v=3N7SqzAoQ8s>

Meeting Attendees:

Secretary of Public Safety and Homeland Security Brian Moran

Deputy Secretary Brad Copenhaver, on behalf of Secretary of Ag & Forestry Bettina Ring

Assistant Secretary Catie Finley, on behalf of Secretary Daniel Carey

Jenn Michelle Pedini (Virginia NORML)

Commissioner Jewel Bronaugh (VDACS)

Ngiste Abebe (Columbia Care)

Dr. David Brown (Department of Health Professions, on behalf of Caroline Juran)

Kristen Collins (Tax Department), on behalf of Commissioner Craig Burns

Michael Carter (VSU Small Farm Outreach Program and farmer)

Travis Hill (ABC)

Deputy Commissioner Charles Green

Joe Mayer (Tax Department)

David Barron (Department of Forensic Science)

Commissioner Bronaugh began the meeting at 1:00 PM.

Approval of August 17, 2020 Minutes

- Commissioner Bronaugh called for a vote to approve the minutes of the subgroup's last meeting on August 17, 2020.

Roll Call Vote: 9 yes, 0 no

- Unanimous in favor of approval of minutes

Guest Speaker: Steve Hoffman, Chair, Massachusetts Cannabis Control Commission

When Massachusetts first started in 2017, they reached out to states who had preceded them, and they were all very helpful—so happy to help serve in this role.

Massachusetts approved medical cannabis in 2012, and was overseen by the Department of Public Health. That department did a good job with regulations but it took a long time—first dispensary did not open until 2015. In 2016 voters approved 53-47% an initiative to legalize adult use, and it remains controversial. The MA legislature put a hold on the law, but finally passed it in mid-2017. That created an independent 5-person commission jointly appointed by the Governor, the AG, and the Treasurer. At first they just covered recreational, but in 2018 switched to regulating medical as well. As far as they know, MA has the only fully independent body that oversees marijuana. At the beginning, the commission had no office, staff, or funding. They had to go to the legislature to get funding.

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It works well as an independent body—they were able to move more quickly than the original medical regulations. They finalized regulations and started accepting applications for licenses in spring 2018 and had stores open in November. The regulations they developed closely mirrored the medical regulations, and now they have streamlined everything into one set of regulations. This is an effective structure.

One downside of being an independent agency is that because of the controversial nature of the topic, they are often on their own. Another downside was the difficulty to start up—no money, no staff, no office. Now 3 years into this, they have a staff of 75 people and an office.

Mr. Hoffman would advocate for a standalone agency that has both medical and recreational under its structure.

MA originally just had a 13% retail tax. The legislature increased that to 20%, including 3% for localities that host the retailer, 6.25% state sales tax, and a 10.75% excise tax. That has become a source of controversy. There are specific uses designated for the excise tax, but there has not been a lot of transparency in how that is used.

They are looking at alternative tax structures, such as weight-based and potency-based. KPMG was hired to help them do the analysis, and even though he could not share specific, they found that the revenue generated from different structures was about the same. The Revenue Department thinks that collecting as a sales tax is likely easiest.

Currently have 65 retail stores open and think they can get to 200 or 225. KPMG concluded now that the price of marijuana is inelastic, but when the market matures, the price will become more elastic. Legislature is considering raising the tax rate because of this.

Question from Sec. Moran: Our ABC has an enforcement arm. How does the MA independent commission handle enforcement?

Answer: They have 75 people on staff, and the biggest single group is enforcement: licensing, inspection, and enforcement. It is not a law enforcement operation—they can do fines, rescindments and suspension, and they can refer to other state law enforcement.

Q from Sec. Moran: Where do your revenues come from?

Answer: Every year, they need to get an appropriation from the legislature, and so far they have gotten what they've asked for. This year, they do not have a budget in place yet, and may not get one until October. Mr. Hoffman would not be surprised if they have to take some cuts. Budget is roughly \$16 million.

Q from Dr. Bronaugh: You mentioned social equity mandate—can you talk more about how you implemented that?

Answer: This has been difficult. The legislation has a diversity requirement and a more explicit mandate that states that those communities negatively impacted by criminalization are full

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participants in the new industry. There are some challenges with that because there are no definitions in the law. They brought in a sociologist to help them define this and even looked at the neighborhood level—ended up with a list of 29 communities disproportionately harmed. Also, full participation does not just mean employment, but it includes ownership as well. Implementing this has been an uphill battle though. People from those communities were allowed to apply for economic empowerment status, which makes it easier to apply. Also created a social equity program, which trains people in how to run a business and gave these folks priority as well.

Two biggest challenges: 1. Strong MA tradition of local rule—before the state can issue a license, the city or town must issue an agreement first. And no localities have the equity mandate. 2. Funding is also a large challenge. Banks are not lending for this industry, so many equity applicants cannot get the necessary capital. They have been pushing to use some of the excise tax to get a fund to provide low or no-interest loans to these folks. Illinois has mirrored a lot of the MA mandates, but they have actually designated some funding to go to that.

Q from Michael Carter: Is grower supply all coming from in state?

Answer: Everything is in state because there is no interstate commerce allowed. They have a seed to sale tracking system. When a plant becomes 8 inches tall, it gets an RFID tracking tag, and that identifier stays with that all the way through retail. This ensures that everything sold in state was grown in state, and also ensures that nothing grown in state is sold out of state. The DOJ Cole Memorandum said that they are not going to interfere with states who choose to do it, given that no one under 21 can legally purchase, no criminal enterprises make money, and there is no diversion of product across state lines. Jeff Sessions rescinded this memo and is letting the state US Attorneys decide how to handle. MA is not a great agricultural climate, so the prices there are much higher. Most production is done indoors, which is resource intensive and expensive. MA has aggressive environmental rules for that reason.

Group members can email additional questions to staff and they will share with Mr. Hoffman.

Guest Speaker: Chief Justin Nordhorn, Chief of Enforcement, Washington State Liquor and Cannabis Board

Powerpoint from WA is attached.

WA was one of the first states in the nation to legalize, and this was done through a voter initiative. But there were some gaps because of this. WA system was modeled after alcohol control with different levels. Manufacturers or processors cannot have an interest in a retail store. Not vertically integrated like many states are.

Implemented a 37% tax on final cannabis sales, and it is much easier to do the tax collection at the retail level.

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They have a licensing division and had a 30 day window at the beginning, but that presented a lot of challenges. They are now up to 550 licenses but had over 2,000 applications. Some communities got left out because of this, and they are exploring ways to fix that.

They also have enforcement, and the WA agency covers cannabis, alcohol, and tobacco, but they found that it takes much longer to inspect cannabis. So they have a specific team doing enforcement of cannabis, and this has been really important.

They have a traceability system, and there is no one right way to do traceability. Even if the federal government fully legalizes, it would still be good to have the traceability system, just like for some other agricultural products.

They have a residency requirement for licensees, but have branched out to allow out of state investment to some degree. Have 3 state-chartered banks and many credit unions who do business with the industry, and this has been good. Because it is more cash-based, they have seen more robberies of these businesses in general. WA does not allow for online sales now, but is considering changes that.

Number of licenses: around 2,000 total in wholesale, retail, and other. Washington does not allow for home-grows or home delivery.

Have seen growth in the marketplace and revenue collections since they started—slide 14. There is still an illicit market in WA, but unless it's a very big operation, not a lot of focus on prosecution that. During COVID-19 pandemic, they have seen increased sales, perhaps because people are shifting away more from illicit market due to safety. Revenue projections continue to increase—slide 15.

Slide 18 has a snapshot of price per gram in Washington State.

There has been a lot changes to licenses—ownership of businesses, floorplans, and other things to get competitive advantage. So staff has to process these change requests. The largest grow they have is 30,000 square feet, which takes a few hours to inspect. For enforcement, they have about 60 licensees per officer as a target. They are looking at standing up another unit to primarily handle education to licensees. Another thing to consider is the ancillary issues that come up, such as human trafficking.

Question from Ngiste Abebe: Have you all seen any challenges with enforcing the high tax rate, especially as it could push people to the illicit market?

Answer: The illicit market will likely always exist, but we are not seeing cross border sales from Oregon, which has a lower tax rate. The tax rate does bring up the cost, but there are also a lot of safeguards that consumers want as well. For example, they have tested illicit product, and it had high pesticide residues. They have good tax compliance.

Question from Travis Hill: Did you have any crossover with your agents because you have both liquor and cannabis?

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Answer: At first they took a generalist approach, but they have switched to have more of specialty focuses. But they have the flexibility to cross over if necessary.

Q from Travis Hill: 34 officers dedicated to cannabis?

Answer: Yes, 34 line officers. 5 teams across the state.

Q from Michael Carter: How were the credit unions incorporated?

Answer: It was a challenge, but they worked with our state agency that regulates financial institutions to get that established—easier for those who do not do business across state lines. They have also licensed money transmitters, which is a closed-loop system that allows people to use a credit or debit card—not widespread yet.

Send any other follow up questions to staff to get to Chief Nordhorn and Washington State.

Guest Speaker: Charles Green, Deputy Commissioner, Virginia Department of Agriculture and Consumer Services

Deputy Commissioner Green presented on conversations VDACS staff has had with two other states, Colorado and Oregon, to get an idea of how their regulatory structures are set up and how responsibilities are shared. This presentation is not from these states, but it is based on what VDACS learned from them. This presentation is also attached, along with a presentation shared by Colorado and an org chart for Colorado.

The first thing they asked were about the timelines for legalizations. Both states took a long time from the first stages to full legalization, but once a successful referendum was passed, they proceeded very quickly to get the first stores open.

General observations and Ideas for Getting Started: Consider a “Cannabis Cabinet” of agencies or Secretariats mandated to come together on a frequent basis to update one another and address the challenges of a start-up program. Grant emergency or expedited regulatory authority for agencies, specific to adult-use issues. APA can take too long for start-up. Recognize that up-front funding and FTE’s will be needed to start a program before license fees and tax revenues materialize, and Massachusetts was a good example of this today.

Example: CO budget is currently \$ 22.2 million; Oregon budget for biennium is \$24.7 million Don’t forget FTE’s and funding for support agencies that will have essential regulatory or other functions. Some aspects of social equity can be addressed by license fee schedule and license types. Example: craft cultivators, hospitality / delivery; limits on vertical integration or scope of ownership.

Colorado—Adults (21 years, up) can possess up to 1 oz of marijuana. Colorado issued rules regarding equivalency calculation for concentrates and edibles. Residents and visitors need a government issued ID to purchase. Individual adults are allowed up to 6 plants (3 mature plants)

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for home-grow. Retail sales are through state licensed entities, and localities may have stricter requirements.

Oregon—Adults (21 years, up) can possess up to 1 oz of useable marijuana (flower). Different allowances for edibles and liquids. Purchase limit seems to differ from possession limit for concentrates, edibles, etc. Residents and visitors need a government issued ID to purchase. Individual adults are allowed up to 4 plants for home-grow. Retail sales through state licensed entities. Localities may allow / restrict retail sales but cannot ban personal possession.

Colorado: Marijuana Enforcement Division (MED)—MED is a Specialized Business Group in the CO Department of Revenue. MED issues licenses for: Cultivators, Product Manufacturers, R&D Facilities, Transporters, Testing Facilities, Retail Stores, and soon to be Delivery and Hospitality. MED responsible for seed-to-sale tracking system. Fairly complex fee schedule based on initial application, business type / size, or renewal. Not only are businesses licensed but all individuals working in those businesses are licensed (or credentialed). Notes indicate some 3,000+ businesses and 40,000 individuals (annually).

Oregon: Liquor and Cannabis Control Board (OLCC)—OLCC is a state agency that regulates alcoholic beverages and recreational marijuana. OLCC issues licenses for: Producers, Processors, Labs, Research, Wholesalers, and Retailers. OLCC responsible for seed-to-sale tracking system. Fairly complex fee schedule based on initial application, business type / size, or renewal. Not only are businesses licensed but all individuals working in those businesses are licensed (or credentialed). Notes indicate some 4,000+ businesses and 58,000 individuals. Not sure if there is a cap on number of producer licenses at this time.

Internal Organization of Primary Regulator—Licensing and Registration Staff, Auditing / Investigation Staff, Some with law enforcement powers, Financial Analysts / Financial Processing, Data Related Position(s), Both internal analysis and interaction with seed-to-sale software provider, Scientific or Laboratory Related, Liaison Position(s) (Example of one FTE at Oregon Dept of Agriculture). Other Considerations: Internal support workload (HRO, FOIA, Financial Processing). Staffing needs tended to be underestimated in the beginning.

Seed to Sale Tracking is Key to Good Oversight—Makes most sense for system to be housed with the primary regulator of retail sales. Example CA houses this function with the Department of Ag, but CDFA only licenses cultivators RFID / bar code technology used to track material from individual seedling all the way to retail sale. Service providers usually charge lead state agency a modest flat contract rate but generate revenues from sale of RFID tags / labels to licensed businesses. All businesses pay a monthly fee (\$40 for METRC) for technical support. This is key to preventing inversion / diversion and for reconciling tax collections. Access to the system is needed for partner agencies. Training for private businesses is important so they correctly input information.

Areas to Address Outside of Primary Regulator—Data sharing arrangements of seed-to-sale system with other agencies, tax revenue collections, law enforcement, other regulatory functions, pesticide regulation, investigation and enforcement, note: VDACS conducts 75-200 pesticide investigations per year, Food safety regulation and inspection, note: VDACS currently inspects

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13,000 food establishments with an average frequency of less than once annually, weights and measures certification, Estimated thousands of scales in industry from trim to processing to retail sales, banking services for industry, input from localities (land use, zoning, etc), environmental or resource uses issues, water use, energy use, waste materials.

Question from Travis Hill: is seed to sale the responsibility of one entity—accounting for where that product is throughout the supply chain?

Answer: Yes. A primary agency issues an RFP and that agency contracts with a service provider for that service. And that agency is in charge of that system and liaises with other agencies that may need access. Primary regulator is looking for inversion or diversion and accounting for the product.

Q from Travis Hill: So that primary regulator is generally the enforcer?

Answer: That's what it seemed to be in CO and OR.

Ngiste Abebe: We already have seed to sale in Virginia's medical program, so it would be good to have on the same platform. We also use the platform to monitor performance and supply/demand as well—management tool.

Charles Green: We have heard that many licensees use functionalities in those systems for those purposes.

Q from Michael Carter: Because this is an illegal substance, was there any discussion about acquiring seeds?

Answer: Every state has basically said that the seeds “appear” in the state with the first established growers. Many states pointed to the Cole Memorandum.

Jenn Michelle Pedini: That is how Virginia's medical program works.

Q from Secretary Moran: Is the purpose of the seed to sale regulation also to control quality and THC levels and/or to track the various taxation points?

Answer: It is really more materials tracking and inventory tracking throughout every stage—looking for anomalies that would show inversion/diversion, making sure it is taxed properly at every level, and control of adulterants and other materials.

Ngiste Abebe: Seed to sale fundamentally has its roots in federal prohibition, as states needed to show that no product was crossing state lines, but it has expanded to cover other uses. From a company standpoint, it also allows companies to demonstrate that they are being good corporate citizens.

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Group Discussion

Dr. Bronaugh: We have some time for subgroup discussion. Our role at some point will be to make some recommendations around the structure and fiscal implications. So, let's open it up to common themes or considerations we need to take into account when thinking about establishing in Virginia. What are some lessons learned from other states? One example is getting some upfront funding from the General Assembly rather than relying on fees to stand up our program. Also, what else do we want to know more about?

Jenn Michelle Pedini: Agree with need to have legislative consideration for FTEs—our medical program was started with no funding from state, which has been a challenge. Primary goal should be to incorporate our own regulatory structure. It is good to look at other states, but we also have a structure already in place.

Ngiste Abebe: We talked a little about social equity here, and that is relevant to this group and Legal and Regulatory. In Virginia, for our medical program, there were steep fees to get a license. For initial funding, we could look at the existing medical structure to have fees to get into the recreational business to start up. What are the initial costs for year one when we are just trying to get the application process set up? Look at ideas for reducing barriers around access to capital—example in California, some cities have set up business incubators. There are not a lot of cannabis lawyers or accountants. Also, looking at tax structures and some of the issues around the federal 280E—some states that came up early with very high tax rates and disincentivized participation in a legal industry. Remember that Virginia is next to DC, which already has a large gray market presence.

Dr. Bronaugh: Is Illinois an example of a state that has done good things with social equity?

Ngiste Abebe: Yes, and there is also the Minority Cannabis Business Association. We reached out to Toi Hutchinson from IL, but she was not available at this time. But we can maybe get her or someone else from the program to present.

Travis Hill: Would definitely support having that conversation. We really need to define what is covered under social equity and addressing all the issues. For example, if someone wants to move from the illegal market to the legal market, how can we help facilitate that?

Ngiste Abebe: Thinking about where does tax revenue go—the people impacted by cannabis prohibition are not just those who are future cannabis entrepreneurs, so let's think of ways to help build equity for all those affected.

Travis Hill: A question for Jenn Michelle—were you talking about what we currently do for medical or about the general Virginia regulatory structure writ large? What are our medical structures in place now? Let's build on the learnings we have already experienced.

Jenn Michelle Pedini: Was specifically speaking to the medical cannabis program, but we also have the hemp model in VDACS. Ultimately we could theoretically have three silos, and we don't want to have to legislate pathways between them. So perhaps we could have some sort of

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umbrella agency in which these three can operate and collaborate. Dr. Brown could probably offer insights into the Board of Pharmacy, and Ngiste could offer the perspective of our medical processors.

Dr. Brown: I could do a phone call with you Travis to catch you up on our program. We want something that gets rid of the silos that could exist.

Dr. Bronaugh: A process question for Brad—what is our report supposed to be, recommending a specific structure or some structural options?

Brad Copenhaver: It could go either way. If we are in this process and we realize that there is a structure that will work best for Virginia, we can call that out. But we also need to provide some options to the General Assembly.

Jenn Michelle Pedini: It would be helpful to be briefed by JLARC on what they are exploring.

Brad Copenhaver: We had some conversations with JLARC early on, but we need to follow up.

Jenn Michelle Pedini: From a social equity perspective, Illinois is one of the states that is called out specifically in the JLARC provisions.

Dr. Bronaugh: Can Brad talk about next steps moving forward.

Brad Copenhaver: Next full group meeting will be September 16 at 9:30 AM. We will have a couple more presentations from national folks in that meeting. At that work group meeting, we will also have reports from each sub group as a mid-point check in. There seems to be a demand from additional input from experts, so we can have an additional meeting like this one. Our plan is to try get the minutes and presentations put together quickly, so everyone can see these before the Wednesday meeting. Other than that, it is going to be up to the work group to think about how we feel about our progress. Staff has a lot of good information and can start framing out the bones of a report. As the group feels we need additional information or to cover an additional topic, just let us know.

Travis Hill: One question we need to tackle is the status of the enforcement agents. Are they law enforcement? What will their powers be? Are they enforcing just marijuana or will it be across the board? Are these questions for us or for the Legal and Regulatory subgroup?

Brad Copenhaver: That is something that both subgroups will need to have discussion about. The responsibilities of the agents is a separate discussion but relates to what agency they are housed in.

Public Comment:

- Kay Hamlin, Hemp Research Group—Look at states who have taken a legislative route, such as Massachusetts and Illinois, and we should look at what these models have done with equity. Vertical structures create the greatest barriers to entry. Do we know how many counties and cities in Virginia are on the list of being most impacted? Virginia is in

Appendix 5

a good position to build on what works already. There is a lot of opportunity to work with localities. As we move forward, please look for solutions on the Catch-22. There are 800 people who have participated in the Department of Corrections agribusiness programs—keep them in mind for FTEs for our program and also that we give priority to these folks who have expressed interest in getting into agribusiness.

- Michael Krawitz, Veterans for Medical Cannabis Access—note: see attached document with Mr. Krawitz’s full public comment.

Travis Hill adjourned the meeting at 3:04 PM.



Cannabis Legalization

Implementing the world's first system of legally growing, processing and retailing cannabis.

Washington State Liquor and Cannabis Board (WSLCB)

September 2020



Overview

- Agency Objectives
- Laws and Rules
- Federal Enforcement Guidelines
- Components of Regulations
- Revenue and Allocations



I-502 Key Elements

- Legalized system of producing, processing and retailing cannabis for adults age 21 and older
- Decriminalizes possession of
 - 1 ounce of useable cannabis for smoking
 - 16 ounces in solid form
 - 72 ounces in liquid form
- Taxation
 - Imposes excise tax rate of 37 percent on final cannabis sales
- Public Safety and Education
 - Establishes a THC bloodstream threshold for cannabis DUI's
 - Limits on store locations, advertising and number of outlets
 - Earmarks revenue for healthcare, research and education



Agency Objective

Public Safety

- Create a tightly controlled and regulated cannabis market

Agency Role and Responsibilities

- Create a 3-tier regulatory system for cannabis
- Create licenses for producer, processor, and retailer
- Enforce laws and rules pertaining to licensees
 - Inspections
 - Traceability system
 - Compliance checks
- Collect and distribute taxes/fees



Federal Enforcement Guidelines

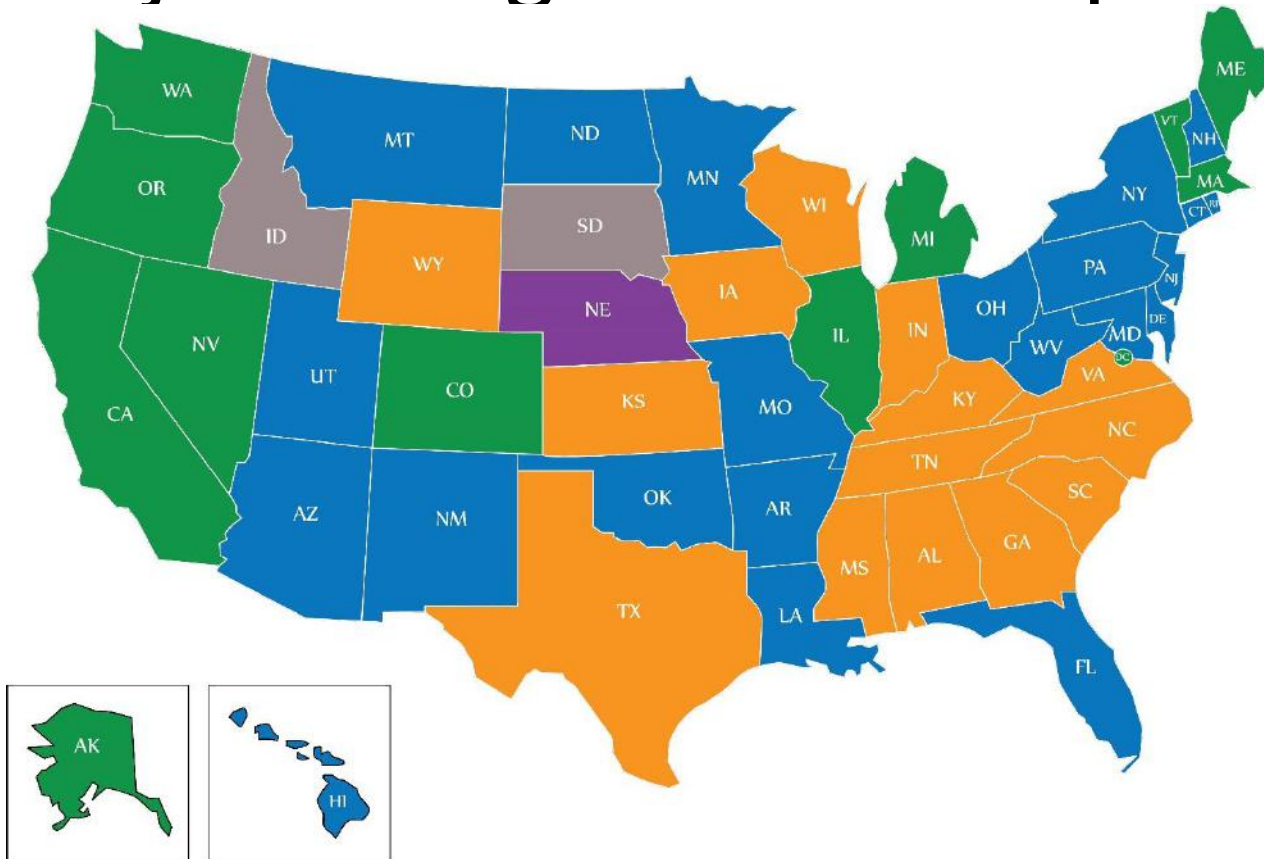
In addition to Washington's laws and rules, the Department of Justice issued eight enforcement guidelines for cannabis businesses known as the Cole Memo. The guidelines were separate from Washington's and enforced at the discretion of the US Department of Justice. The Cole Memo was later rescinded but Washington continues to uphold and enforce the spirit of these enforcement guidelines.

Eight Guidelines

1. Preventing distribution to minors.
2. Preventing the revenue from going to criminal enterprises, gangs and cartels.
3. Preventing the diversion of cannabis from states where it is legal to other states.
4. Preventing state-authorized cannabis activity from being used as a cover or pretext for the trafficking of other illegal drugs or other illegal activity.
5. Preventing violence and the use of firearms in the cultivation and distribution of cannabis.
6. Preventing drugged driving and other adverse public health consequences associated with cannabis use.
7. Preventing the growing of cannabis on public lands and the environmental dangers posed by cannabis production on public lands.
8. Preventing cannabis possession or use on federal property.



Marijuana Legalization Map 2020



Green: Fully legalized

Blue: Medical only

Purple: Decriminalized

Grey: No legal program

Orange: CBD only



Marijuana Consultant

BOTEC

- Contract with BOTEC Analysis Corporation to provide technical expertise
 - Project Leader is Dr. Mark Kleiman, CEO BOTEC, Ph.D. Public Policy, Harvard Kennedy School
 - Dr. Kleiman teaches public policy at UCLA.
 - Expert in many aspects of criminal and drug policy, including probation and parole, incarceration, and cannabis policy.
 - Co-author of the book *Marijuana Legalization: What Everybody Needs to Know*.

BOTEC Team Leads

1. Product and Industry Knowledge
Matthew Cohen, Founder and CEO, Trichome Intelligence
2. Product Quality Standards and Testing
David Lampach, President, Steep Hill Lab.
3. Product Usage and Consumption Validation
Dr. Beau Kilmer, Ph.D., Senior Researcher, RAND Corp.

Comparing Notes with Colorado

- Ongoing dialog with Colorado and other states



Licensing Requirements

Licensing Requirements

- Criminal history investigation
 - All parties, including spouses
 - FBI background checks
- Financial background investigation
 - Identifies source of funds
- Six-month residency requirement
 - Entity must be formed in Washington State
 - Demonstrate at time of application
- Property must be more than 1,000' from: schools, child care centers, transit centers, game arcades, libraries, playgrounds, public parks.

Traceability System

- A robust and comprehensive software system that traces product from start to sale. Licensees must report significant milestones and changes to the LCB's traceability system which allows the LCB to monitor and track any plant or product at any time.



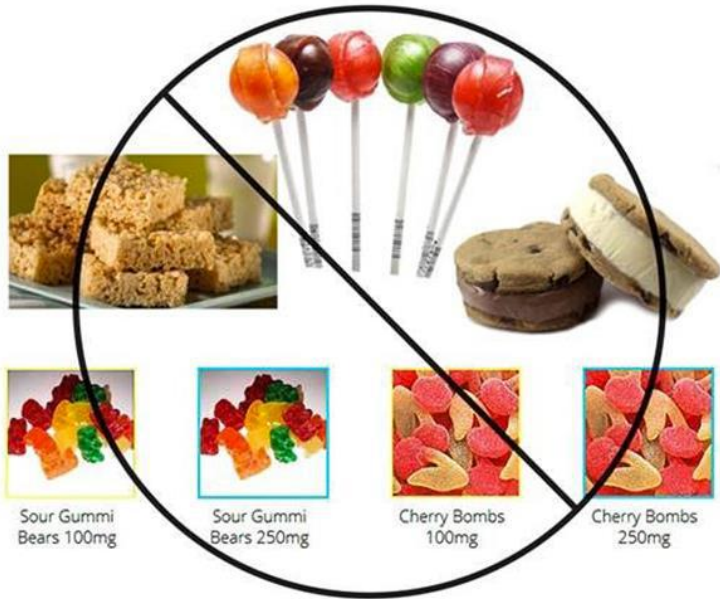
Consumer Safety

Strict Packaging and Labeling Requirements

- Limited servings and concentration per package
 - Servings are individually wrapped
 - Homogenized to ensure uniform THC concentration
- Warning labels
- Universal symbol identifying it as a product containing THC
- Net weight
- Usage warnings (specific warning for ingestible foods and/or liquids about effect delays)
- Upon request
 - Third party lab that tested lot and results
 - All pesticides, herbicides, fungicides found in product

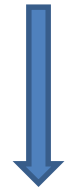


Consumer Safety



← Edible Products Not Allowed

Sample Label Mock Up



Warning: This product has intoxicating effects and may be habit forming. There may be health risks associated with the consumption of this product. Should not be used by women that are pregnant or breast feeding. This product may be unlawful outside of Washington State. Marijuana can impair concentration, coordination and judgment. Do not operate a vehicle or machinery under the influence of this drug. For use only by adults 21 and older. Keep out of children.

Caution: When eaten or swallowed, the intoxicating effects of this drug may be delayed by two or more hours.

Resinator Blend

60% Sativa / 40% Indica



PURE CO₂
EXTRACTED
CANNABIS



TwoLeaf
Blends for Every Occasion



100mg THC
10 Capsules (10mg THC each)

Lot#6334414900001234
10mg Active THC per Serving
Contains 10 Servings
Net Weight 5000mg
Mfg Date: 02/08/2017
Best By: 02/08/2018
Retail UBI#603344149

Ingredients: Organic Fractionated Coconut Oil, CO₂ Extracted Cannabis Oil.

No pesticides were used in the production of this product.

THIS PRODUCT CONTAINS MARIJUANA

Mfg. by TwoLeaf Group UBI#6344149



Consumer Safety

Product and Label Approval

- All cannabis infused products must be approved by a panel of Board staff to determine if the product and/or packaging is especially appealing to children.

Lab Tested and Approved

- All lots tested by independent accredited labs
- Established and uniform testing standards

Store Signage and Product Warnings

- No minors allowed in stores
- Required product and usage signs within stores



Licenses

Issued as of Aug. 21, 2020

Wholesale

- Producer: 146
- Producer/Processor: 942
- Processor: 233

Retail

- Retailer: 485
 - Medical Endorsements: 279

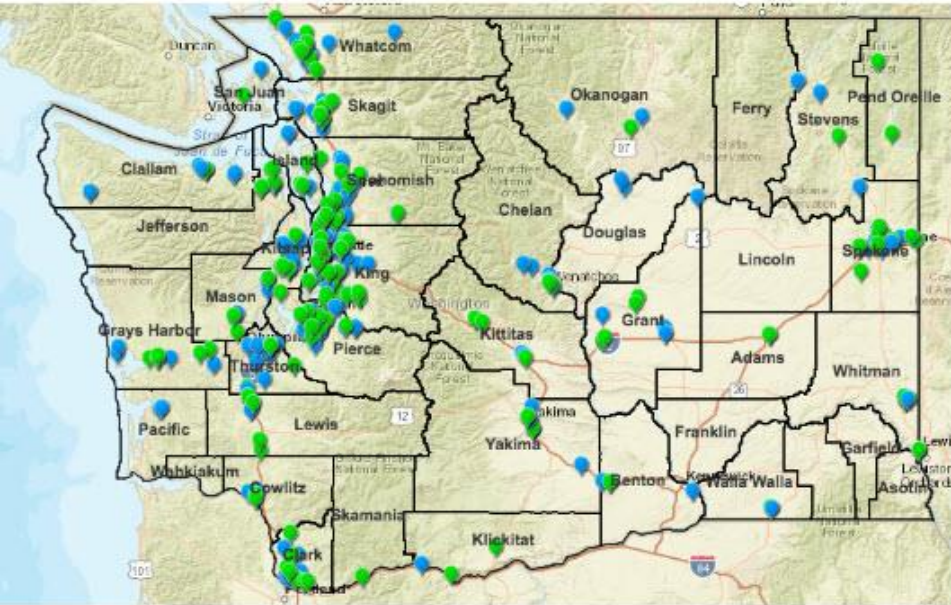
Other

- Transportation: 13
- Research: 1

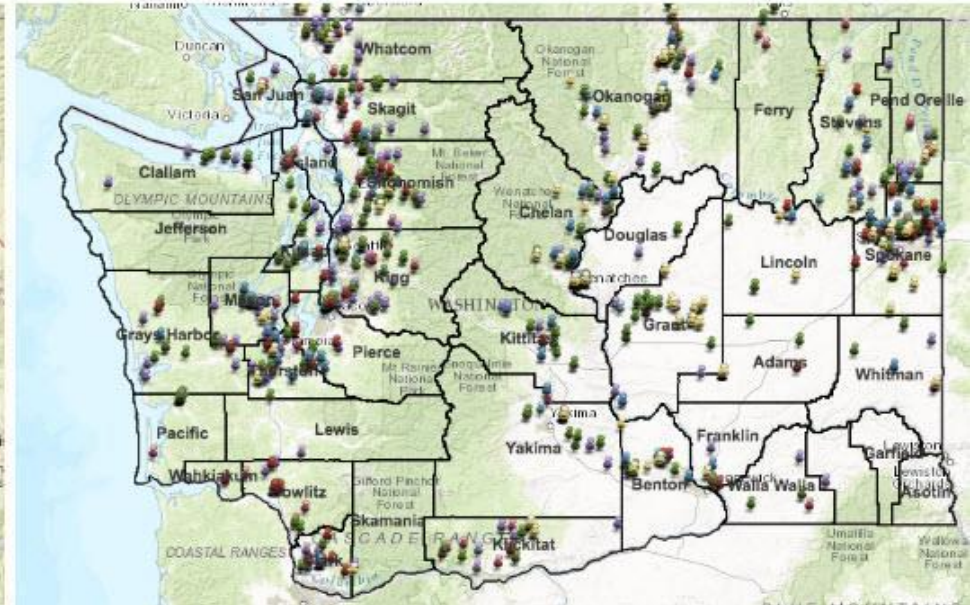


Licensed Locations Continued

Retail Locations



Producers/Processors





Retail Sales/Excise Tax

(in millions)

<u>Fiscal Year</u>	<u>Retail Sales</u>	<u>Excise Tax</u>
2015	\$175.4	\$64.9
2016	\$501.9	\$185.7
2017	\$850.8	\$314.8
2018	\$978.4	\$362.0
2019	\$1,055.1	\$390.4
2020	\$1,207.0	\$446.6

*In addition, DOR collects Retail Sales and Business and Occupation taxes



Revenue Projections

Initial excise tax forecast projections (2013)

FY 2015	\$36.3 million
FY 2016	\$80.0 million
FY 2017	\$119.8 million
FY 2018	\$160.2 million
FY 2019	\$193.5 million

Current excise tax forecast projections (June 2020)

FY 2015	\$64.9 million (actual)
FY 2016	\$185.7 million (actual)
FY 2017	\$314.8 million (actual)*
FY 2018	\$362.0 million (actual)
FY 2019	\$390.4 million (actual)
FY 2020	\$446.6 million
FY 2021	\$458.1 million

* Medical cannabis was incorporated into the regulated adult use market.



Washington State Liquor and Cannabis Board

Estimated Net to Distribute		\$352,319,189	\$368,096,730
Agency	For	FY 18	FY 19
Dept. of Social and Health Svcs.	Prevention and reduction of substance abuse	\$27,786,000	Shifted to HCA
Dept. of Health	Marijuana education and public health program	\$9,761,000	\$9,764,000
University of Washington	Research on short- and long-term effects	\$227,000	\$227,000
Washington State University	Research on short- and long-term effects	\$138,000	\$138,000
WA Health Care Authority	Basic Health Trust Fund Account	\$216,160,000	\$194,000,000
	Contracts with community health centers	\$17,616,000	\$46,191,000
Supt. of Public Instruction	Drop-out prevention	\$513,000	\$515,000
General Fund		\$80,118,189	\$117,261,730



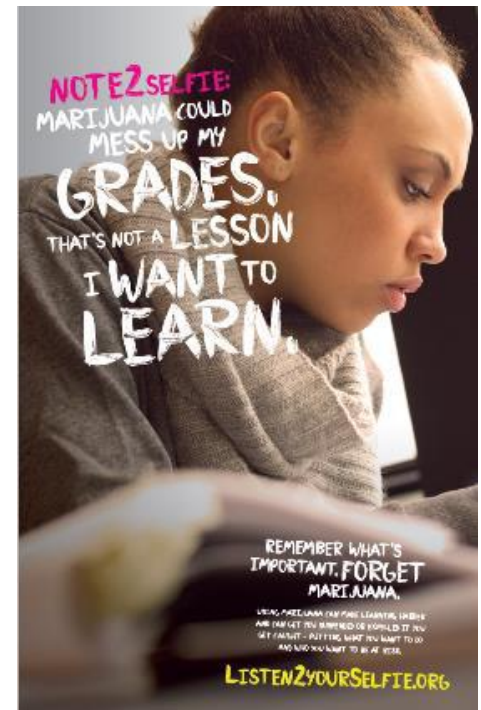
Examples of Funded Activities

DSHS – Substance abuse prevention and treatment

- Increase in youth treatment services
- Increased support for and expansion of community- and school-based services
- Grants for community-based services for prevention
- Training in Life Skills and other prevention and treatment programs
- Tribal Prevention and Treatment grants

DOH

- Media-based educational campaigns
 - Parents and other adult influencers
 - Youth
- Marijuana and Tobacco community grants
 - General population
 - Priority populations (African American, Latino/Hispanic, Asian/Pacific Islander, American Indian/Alaska Native, and LGBTQT)
- Marijuana Hotline
- Tobacco cessation services

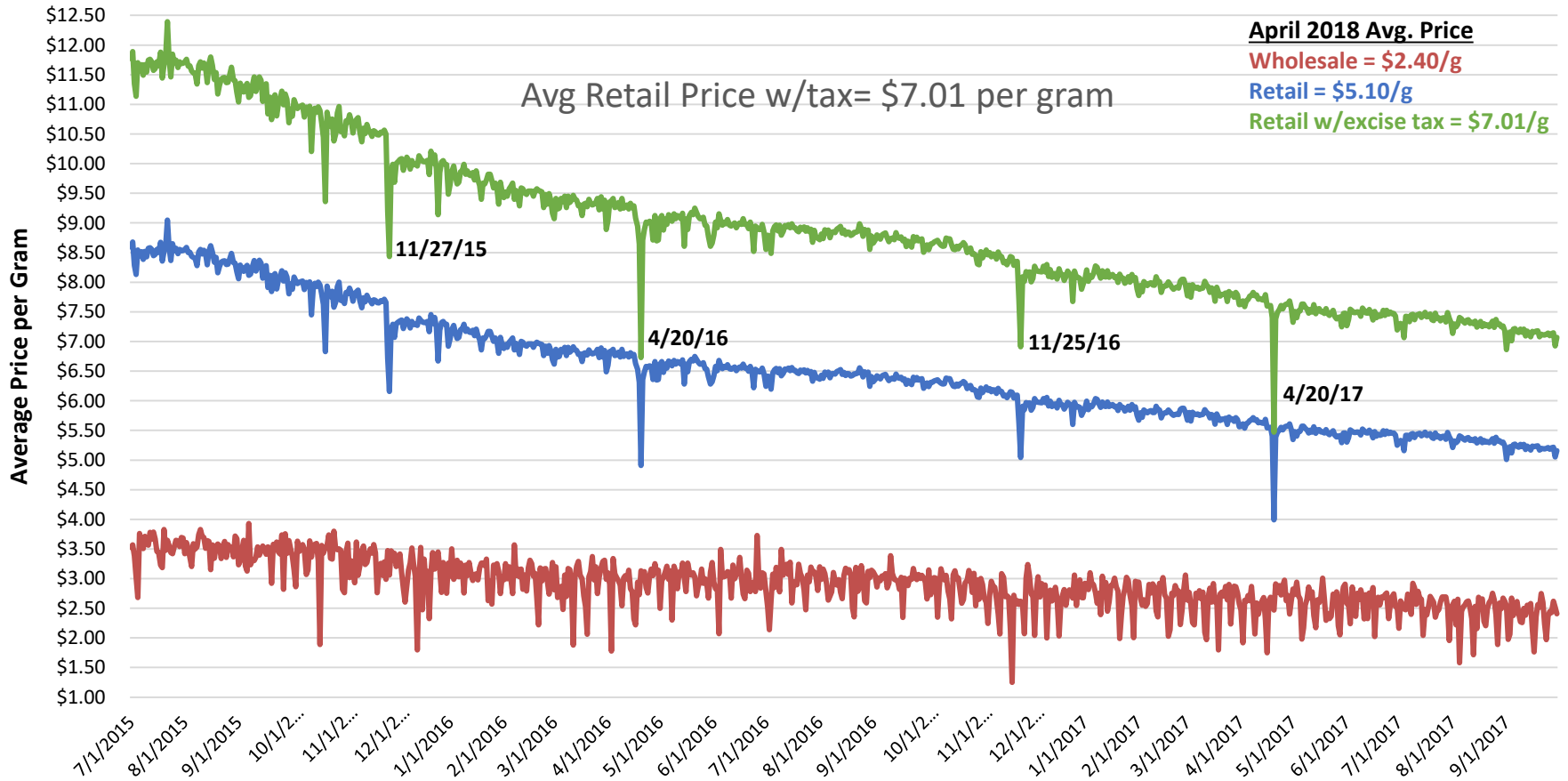




Average Price per Gram Sold

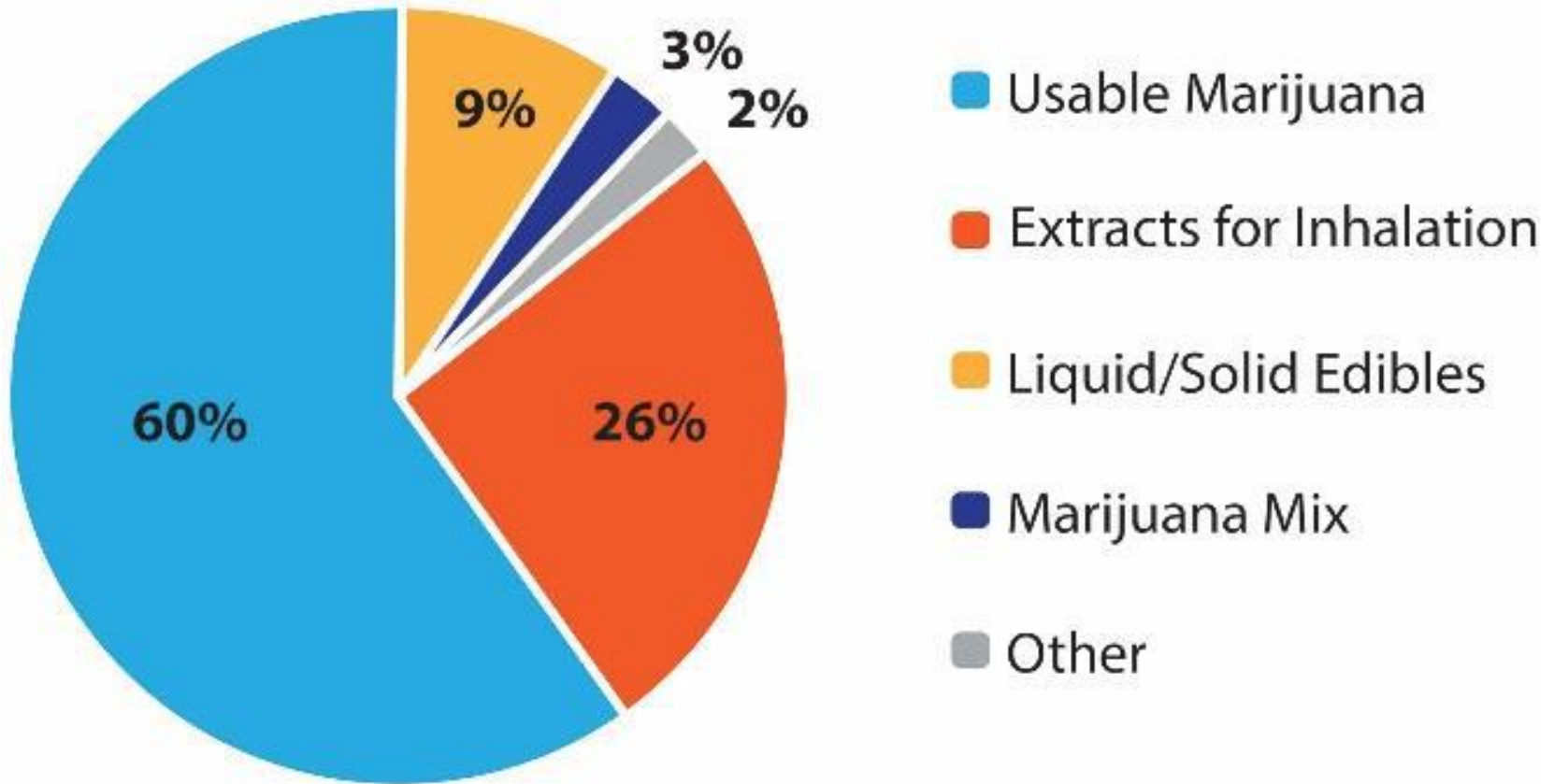
Wholesale vs. Retail

— Wholesale Avg. \$/g — Retail Avg. \$/g — Retail Avg. \$/g (with excise tax)





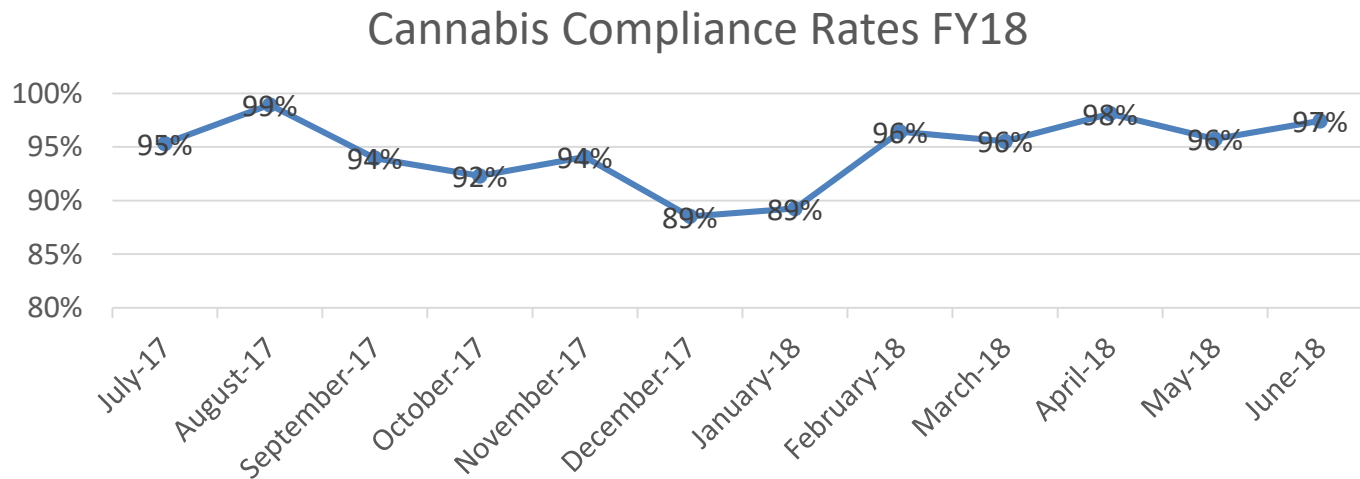
Sales by Product Type (%)





Compliance Checks

- The WSLCB regularly conducts compliance checks of retailers licensed to sell cannabis.
- Compliance checks are proven tools to reduce the sale of cannabis to minors.
- Investigative aides assist officers with compliance checks. These individuals are from 18 to 20 years old. They must either present their true identification or none at all if asked by a clerk.
- Marijuana retailers have a 94 percent compliance rate of refusing sales to minors, which compares favorably to the 83 percent compliance rate in the alcohol industry.

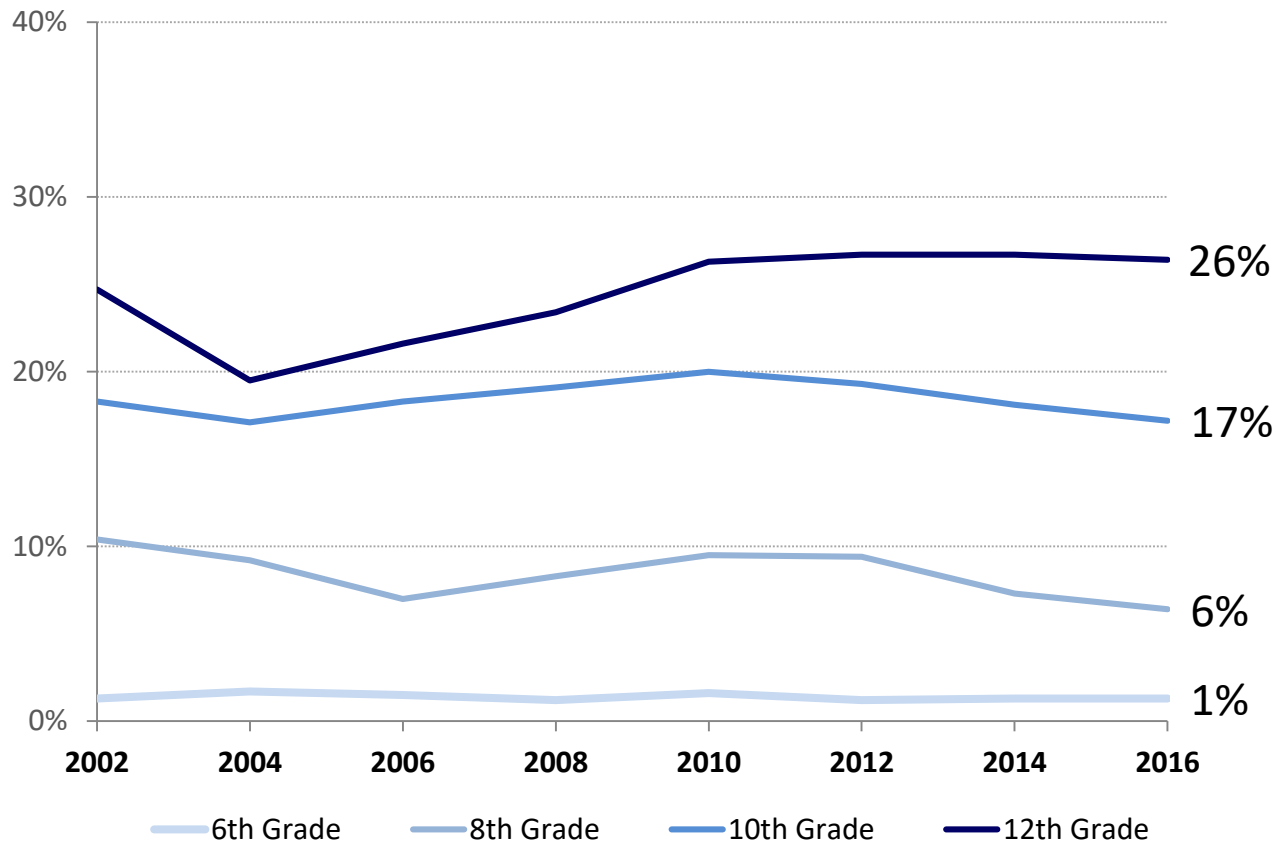




Youth Marijuana Use: Past 30 Days

Used marijuana/hashish during the past 30 days?

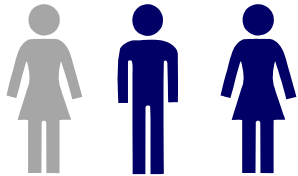
Year	10 th Grade Marijuana Use
2002	18%
2004	17%
2006	18%
2008	19%
2010	20%
2012	19%
2014	18%



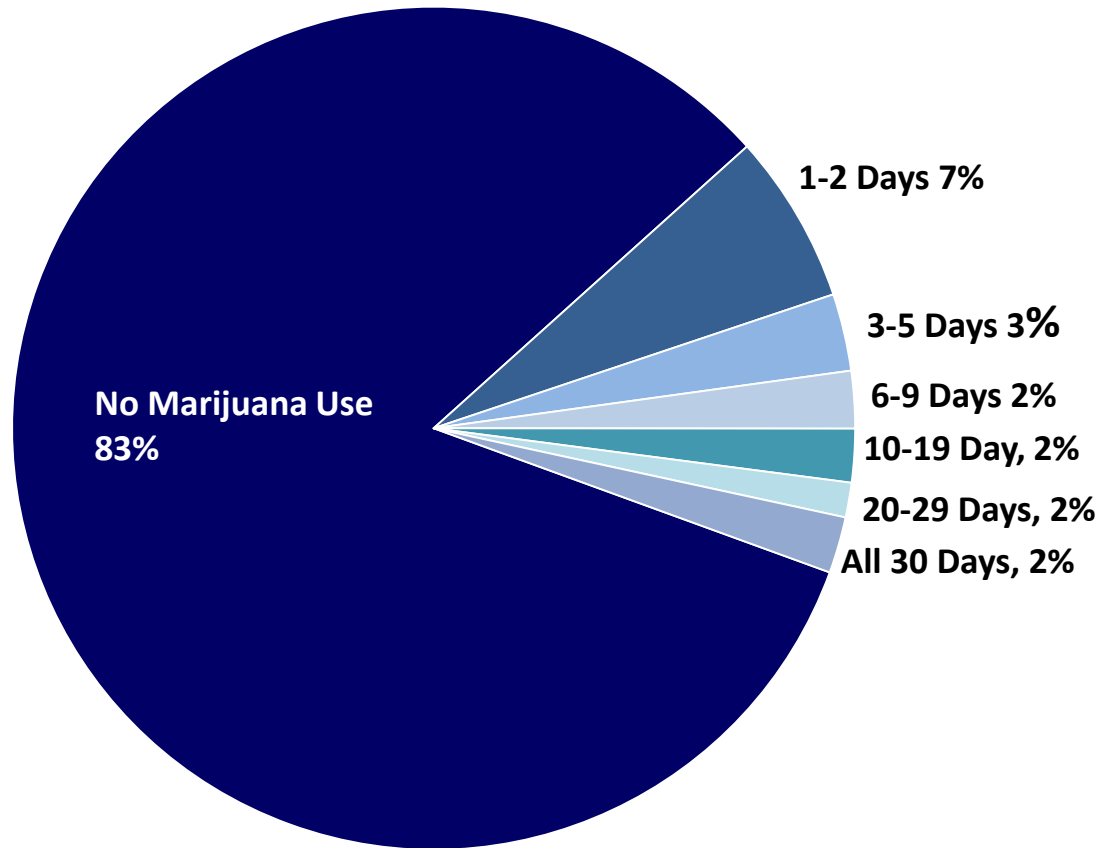
Source: Washington Healthy Youth Survey - 2002 through 2016



10th Grade Level of Marijuana Use

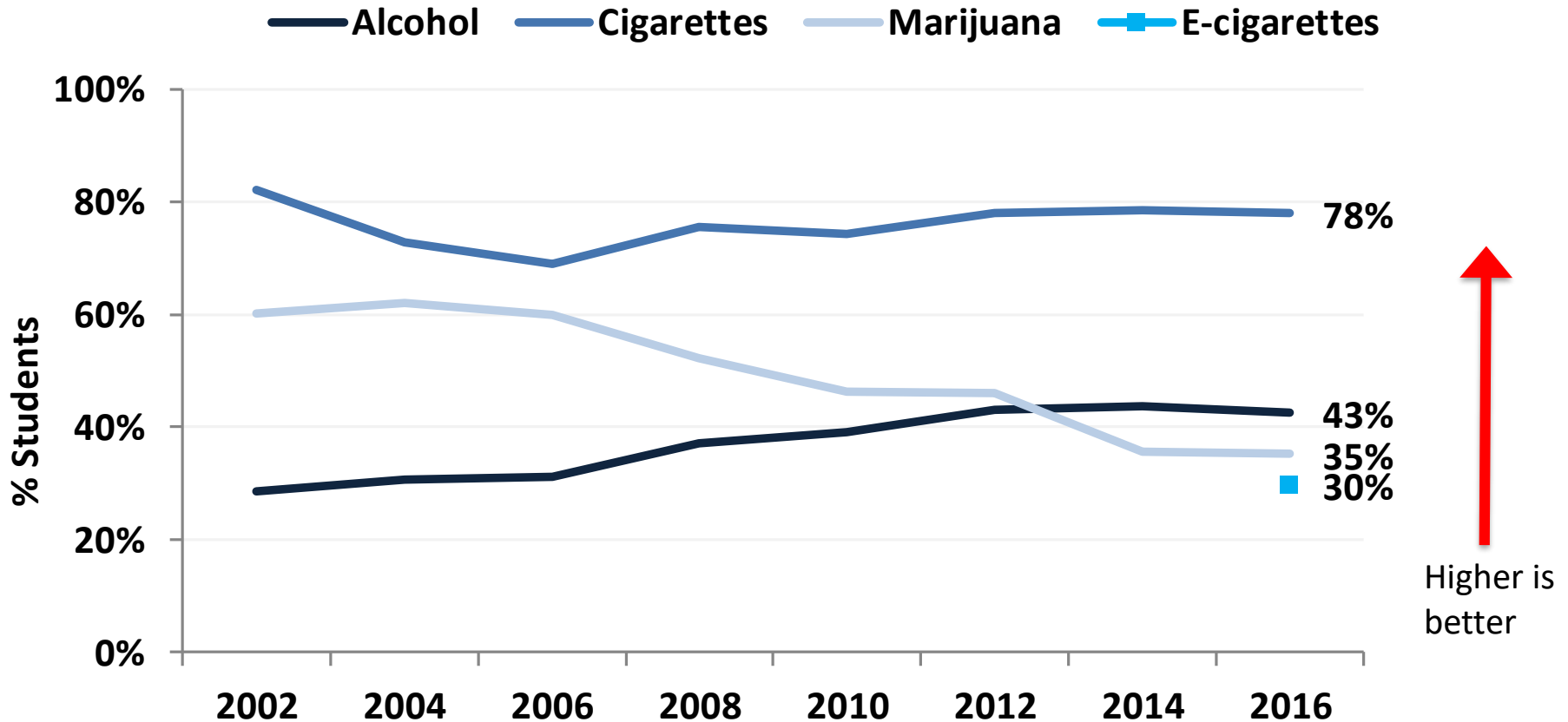


Among 10th graders who used marijuana in the past 30 days, almost 1 in 3 used for 10 or more days



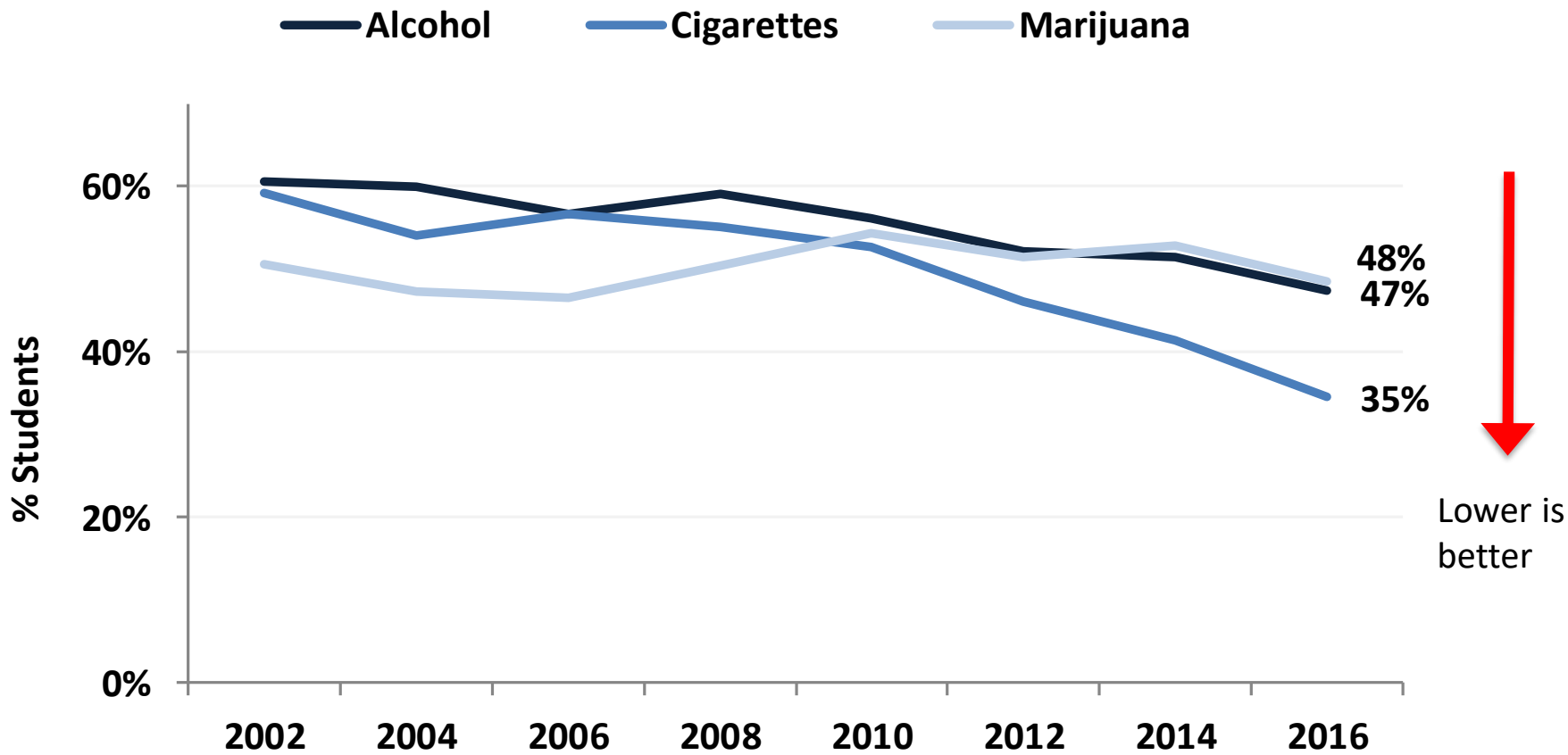


Perceived “Great Risk of Harm” from Alcohol, Tobacco, and Marijuana Use: 10th Graders



Source: Washington Healthy Youth Survey, 2002 - 2016

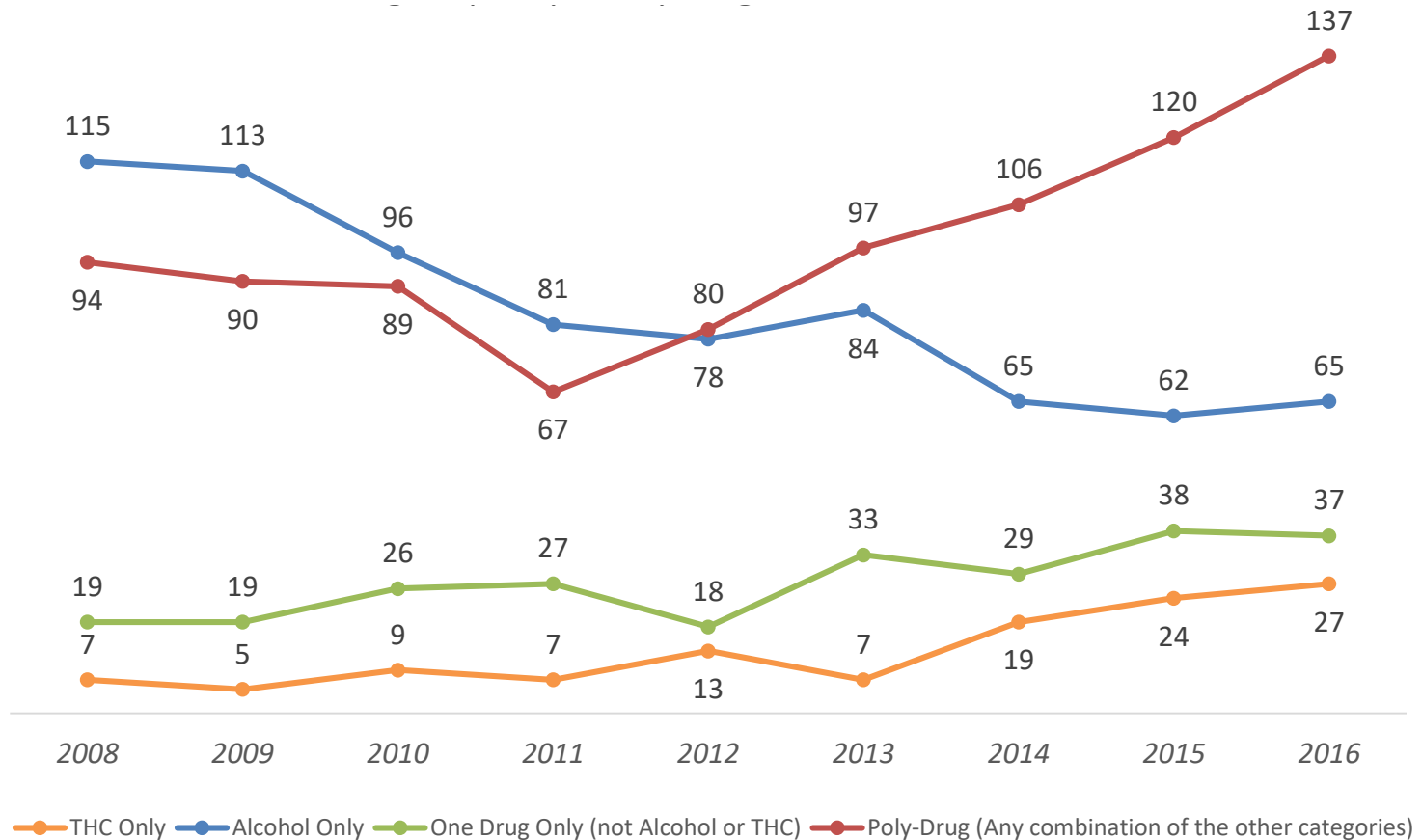
Youth Perceptions about Ease of Availability:



Source: Washington Healthy Youth Survey - 2002 through 2016

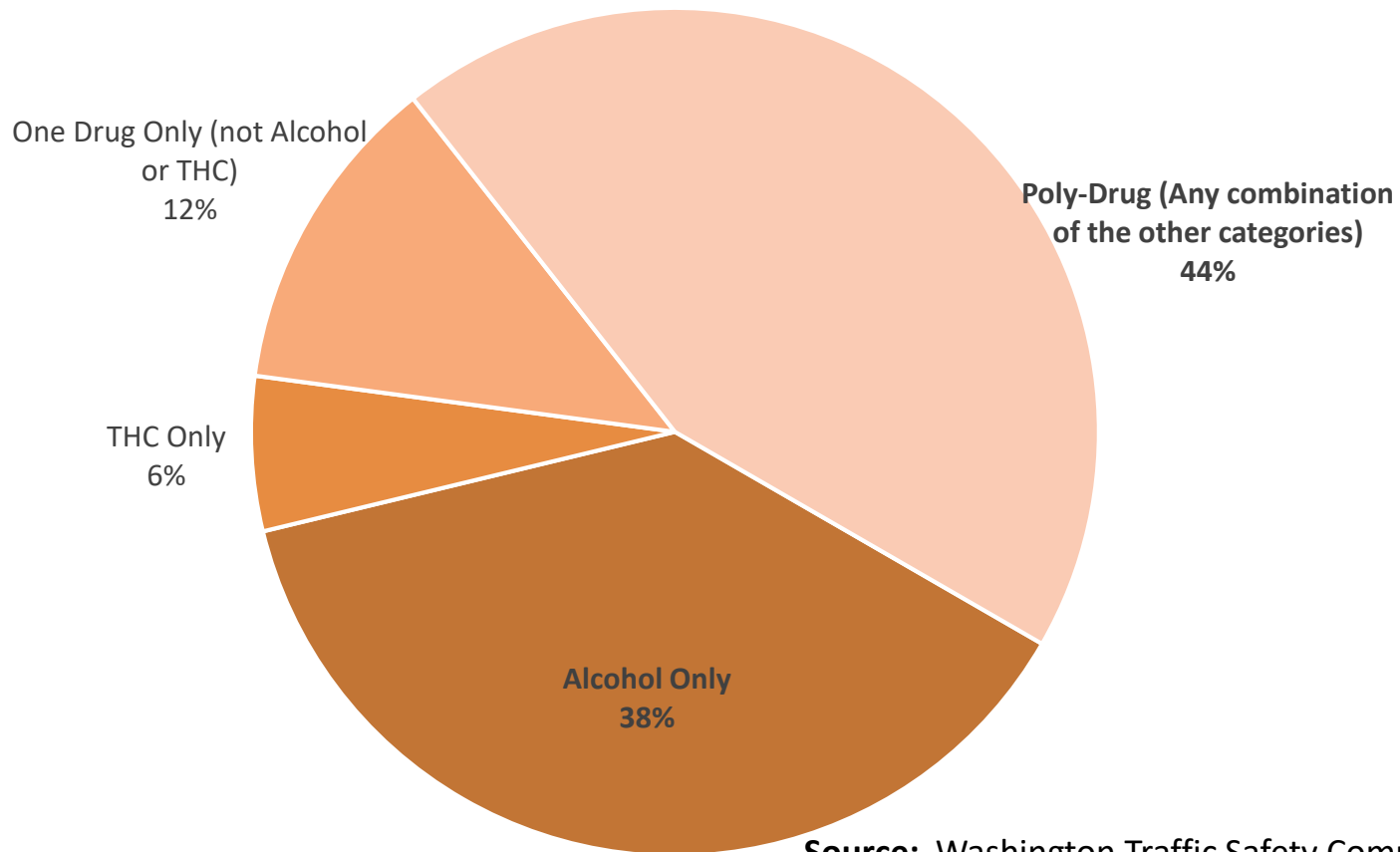


Rising Frequency of Poly-Drug Drivers in Fatal Crashes





Alcohol and Poly-Drug Use in Fatal Crash Involved Drivers, 2008-2016



Source: Washington Traffic Safety Commission



Advertising Restrictions

All cannabis advertising and product labels sold in Washington may not contain any statement, or illustration that:

- Is false or misleading;
- Promotes over consumption;
- Represents the use of cannabis has curative or therapeutic effects;
- Depicts a child or other person under legal age to consume cannabis, or includes:
 - Objects, such as toys, characters, or cartoon characters suggesting the presence of a child, or any other depiction designed in any manner to be especially appealing to children or other persons under legal age to consume cannabis; or
 - Is designed in any manner that would be especially appealing to children or other persons under twenty-one years of age.

No licensee shall place or maintain a cannabis advertisement within one thousand feet of the perimeter of a:

- school grounds,
- playground,
- recreation center or facility,
- child care center,
- public park,
- library,
- game arcade admission to which it is not restricted to persons aged twenty-one years or older;
- On or in a public transit vehicle or public transit shelter; or
- On or in a publicly owned or operated property.



Tribal Compacts

- Wilkinson Memo extended the enforcement priorities of the Cole memo to Indian Country allowing for tribal cannabis operations. Like the Cole Memo, it was rescinded.
- The state enters into compacts with tribes regarding cannabis as it does for alcohol, tobacco, etc.
- The purpose and intent of cannabis tribal compacts is to address its production and processing, and its retail sale in Indian Country.
- The state currently has 16 compacts with the tribes within Washington State , and is in active negotiations with additional tribes:



Current Challenges

Conflicts with Federal Law

- Doesn't change federal law
- Schedule 1 Controlled Substance
- DOJ rescinded the federal guidance causing uncertainty
- Research and development is suppressed

Bans and Moratoria

- Court ruled that because I-502 was silent on bans/moratoria that cities/counties can ban cannabis businesses

Public Health

- EPA and federally regulated pesticides

Banking

- Dept. of the Treasury allows banks to do business with cannabis licensees



... Challenges

Advertising

- Complaints about advertising are increasing
- 2017 legislature further restricted advertising
 - Prohibited sign spinners
 - Prohibited cannabis leaves on signage, logos, etc.
 - Allows local governments to be more restrictive than state law.

Pesticides

- Contracted with state Dept. of Agriculture to test for illegal pesticides
 - First of its kind in the nation
 - Random and complaint driven samples
 - 75 samples per month



Looking Ahead

- **Benefit – Cost Impact of Legalized Marijuana**
 - Benefit-cost analysis performed by Washington State Institute for Public Policy
 - Broad impact of policy change in Washington State
 - Reports due: 2015, 2017, 2022, 2032
- **LCB and WSDA Pesticide Testing Agreement**
 - First of its kind in the nation
 - First tests in January 2017
 - 75 tests per month covering spectrum of 100 pesticides



Staying Connected

- Visit the Marijuana webpage -- lcb.wa.gov
 - Interactive dashboard (maps, relevant data, updated weekly)
 - Factsheets
 - FAQs
 - Timelines
- Mailing list, approximately 13,500 subscribers
- Public hearings on rules are posted on website and publicized
- Media attention -- AP Top 5 story of 2012, 2013, 2014

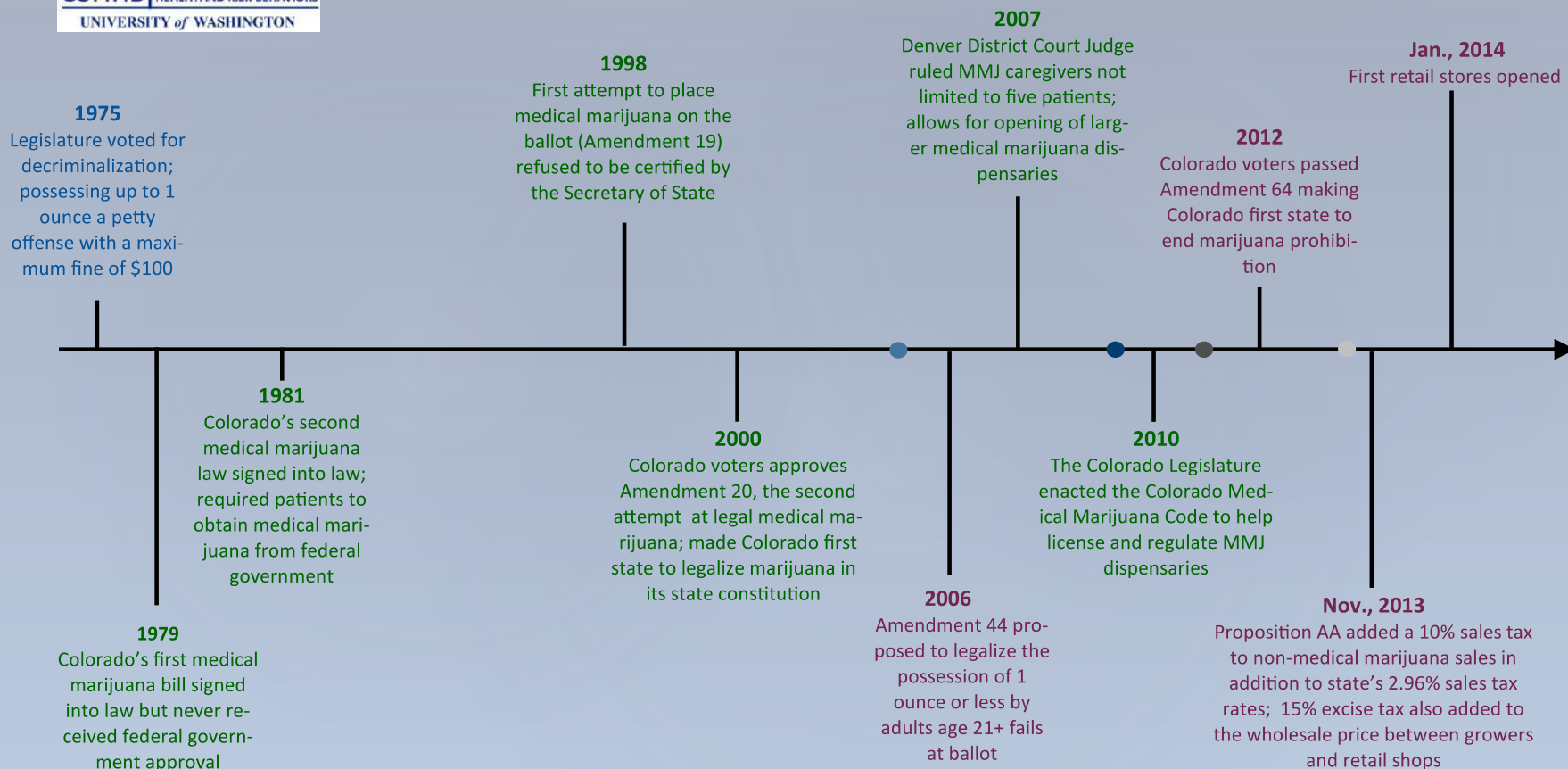


Thank you

Conversation With Two Adult Use Marijuana States: Colorado and Oregon

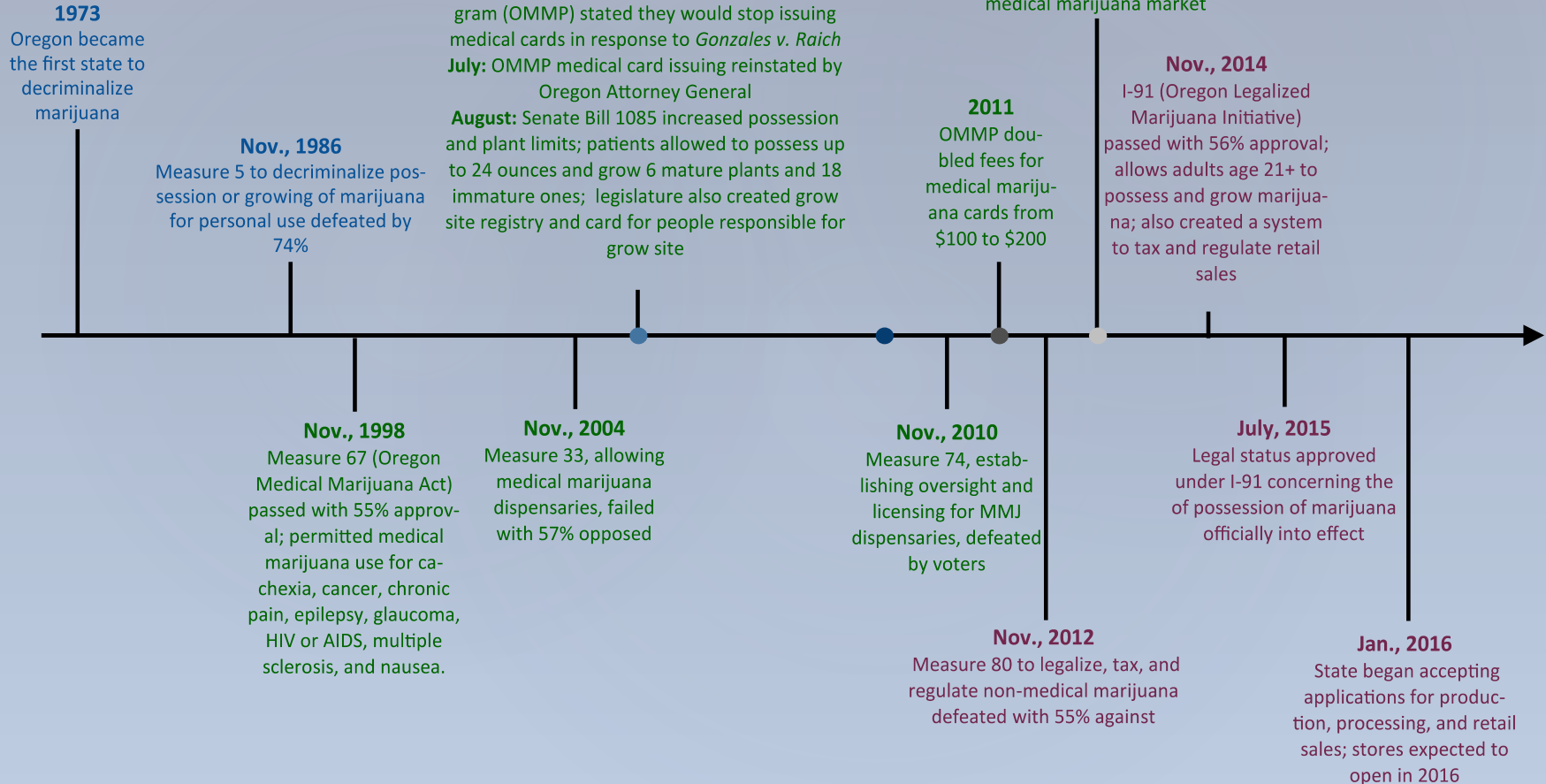
MARIJUANA POLICY TIMELINE: COLORADO

Published May, 2016



MARIJUANA POLICY TIMELINE: OREGON

Published May, 2016



Ideas for Getting Started

- Consider a “Cannabis Cabinet” of agencies or Secretariats mandated to come together on a frequent basis to update one another and address the challenges of a start-up program
- Grant emergency or expedited regulatory authority for agencies, specific to adult-use issues. APA can take too long for start-up.
- Recognize that up-front funding and FTE’s will be needed to start a program before license fees and tax revenues materialize
 - Example CO budget is currently \$ 22.2 million; Oregon budget for biennium is \$24.7 million
- Don’t forget FTE’s and funding for support agencies that will have essential regulatory or other functions
- Some aspects of social equity can be addressed by license fee schedule and license types
 - Example craft cultivators, hospitality / delivery
 - Limits on vertical integration or scope of ownership

Colorado

- Adults (21 years, up) can possess up to 1 oz of marijuana. Colorado issued rules regarding equivalency calculation for concentrates and edibles
- Residents and visitors need a government issued ID to purchase
- Individual adults are allowed up to 6 plants (3 mature plants) for home-grow
- Retail sales through state licensed entities
- Localities may have stricter requirements

Oregon

- Adults (21 years, up) can possess up to 1 oz of useable marijuana (flower). Different allowances for edibles and liquids
- Purchase limit seems to differ from possession limit for concentrates, edibles, etc.
- Residents and visitors need a government issued ID to purchase
- Individual adults are allowed up to 4 plants for home-grow
- Retail sales through state licensed entities
- Localities may allow / restrict retail sales but cannot ban personal possession

Colorado: Marijuana Enforcement Division (MED)

- MED is a Specialized Business Group in the CO Department of Revenue
- MED issues licenses for: Cultivators, Product Manufacturers, R&D Facilities, Transporters, Testing Facilities, Retail Stores, and soon to be Delivery and Hospitality
- MED responsible for seed-to-sale tracking system
- Fairly complex fee schedule based on initial application, business type / size, or renewal
- Not only are businesses licensed but all individuals working in those businesses are licensed (or credentialed)
 - Notes indicate some 3,000+ businesses and 40,000 individuals (annually)

Oregon: Liquor and Cannabis Control Board (OLCC)

- OLCC is a state agency that regulates alcoholic beverages and recreational marijuana
- OLCC issues licenses for: Producers, Processors, Labs, Research, Wholesalers, and Retailers
- OLCC responsible for seed-to-sale tracking system
- Fairly complex fee schedule based on initial application, business type / size, or renewal
- Not only are businesses licensed but all individuals working in those businesses are licensed (or credentialed)
 - Notes indicate some 4,000+ businesses and 58,000 individuals
 - Cap on number of producer licenses at this time??

Internal Organization of Primary Regulator

- Licensing and Registration Staff
- Auditing / Investigation Staff
 - Some with law enforcement powers
- Financial Analysts / Financial Processing
- Data Related Position(s)
 - Both internal analysis and interaction with seed-to-sale software provider
- Scientific or Laboratory Related
- Liaison Position(s)
 - Example of one FTE at Oregon Dept of Agriculture
- Other Considerations
 - Internal support workload (HRO, FOIA, Financial Processing)
 - Staffing needs tended to be underestimated in the beginning

Seed to Sale Tracking is Key to Good Oversight

- Makes most sense for system to be housed with the primary regulator of retail sales
 - Example CA houses this function with the Dept of Ag but CDFA only licenses cultivators
- RFID / bar code technology used to track material from individual seedling all the way to retail sale
- Service providers usually charge lead state agency a modest flat contract rate but generate revenues from sale of RFID tags / labels to licensed businesses
- All businesses pay a monthly fee (\$40 for METRC) for technical support
- Key to preventing inversion / diversion and for reconciling tax collections
- Access to the system is needed for partner agencies
- Training for private businesses is important so they correctly input information

Areas to Address Outside of Primary Regulator

- Data sharing arrangements of seed-to-sale system with other agencies
 - Tax revenue collections
 - Law enforcement
 - Other regulatory functions
- Pesticide regulation, investigation and enforcement
 - VDACS conducts 75-200 pesticide investigations per year
- Food safety regulation and inspection
 - VDACS currently inspects 13,000 food establishments with an average frequency of less than once annually
- Weights and measures certification
 - Estimated thousands of scales in industry from trim to processing to retail sales
- Banking services for industry
- Input from localities (land use, zoning, etc)
- Environmental or resource uses issues
 - Water use, energy use, waste materials

HOSPITALITY
HB 19-1230

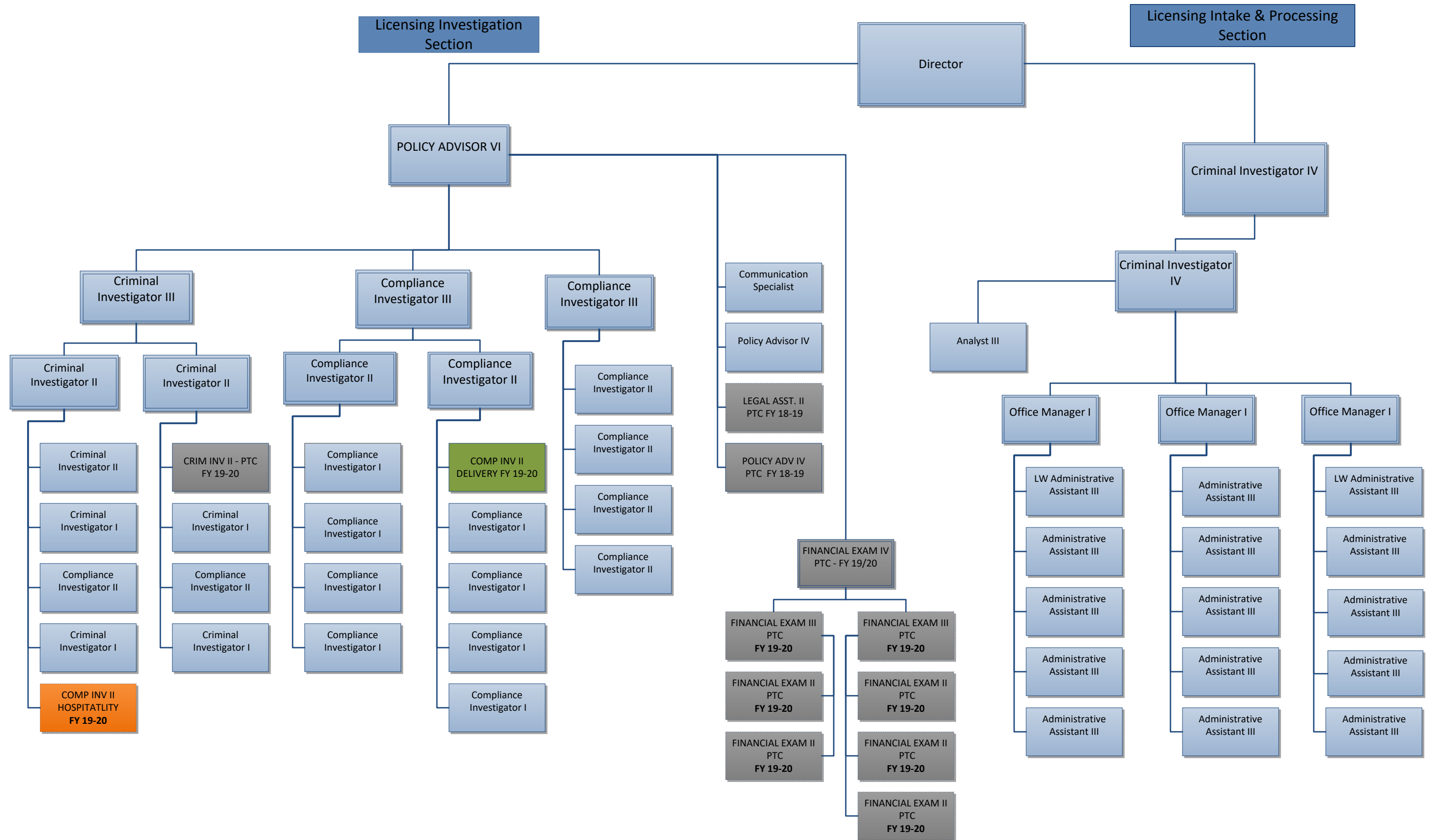
DELIVERY
HB 19-1234

PTC
HB 19-1090

SUNSET
SB 19-224

DECISION ITEM

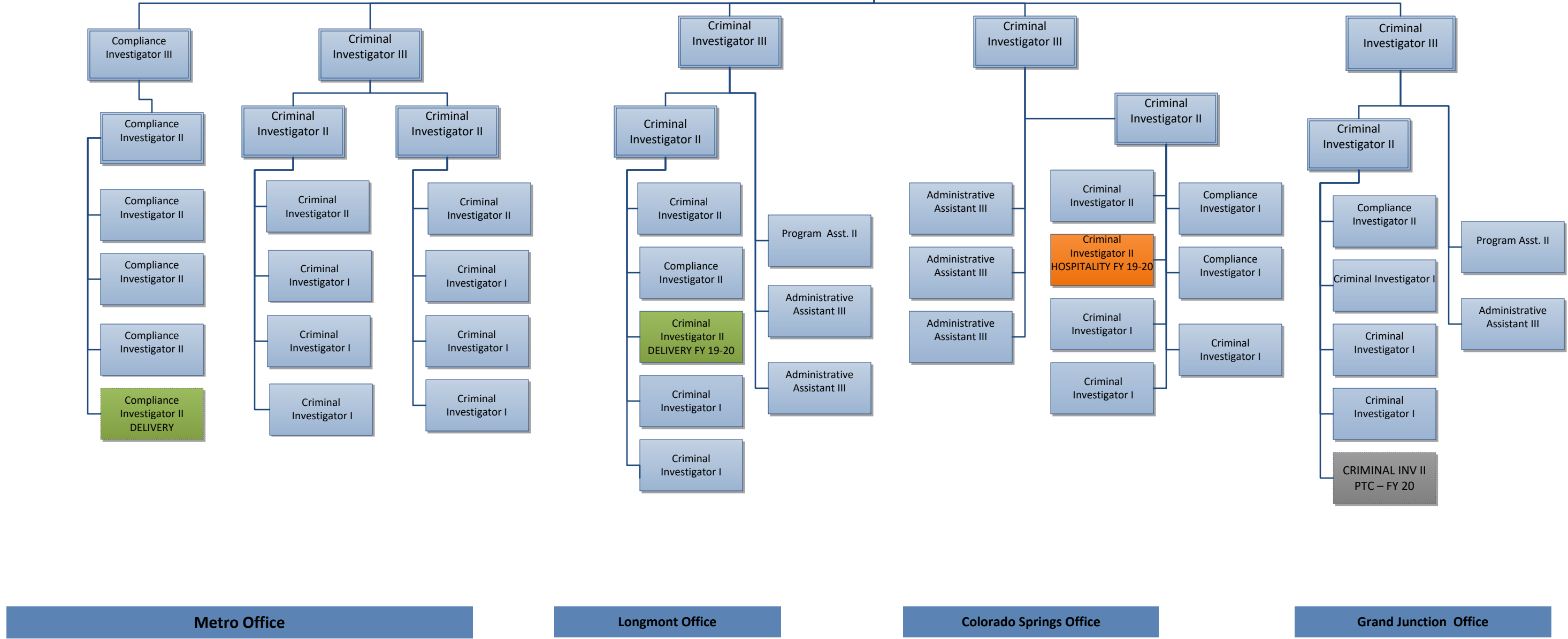
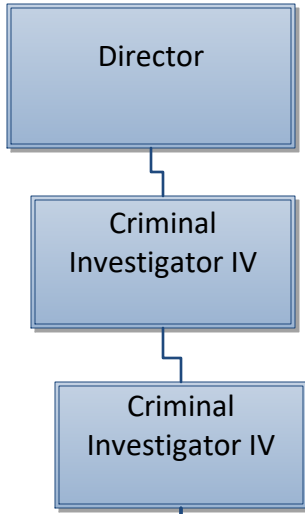
Marijuana Enforcement Division Staff Plan – January 2020 Current



Marijuana Enforcement Division
Staff Plan – January 2020
Current

DECISION ITEM HOSPITALITY HB 19-1230 DELIVERY HB 19-1234 PTC HB 19-1090 SUNSET SB 19-224

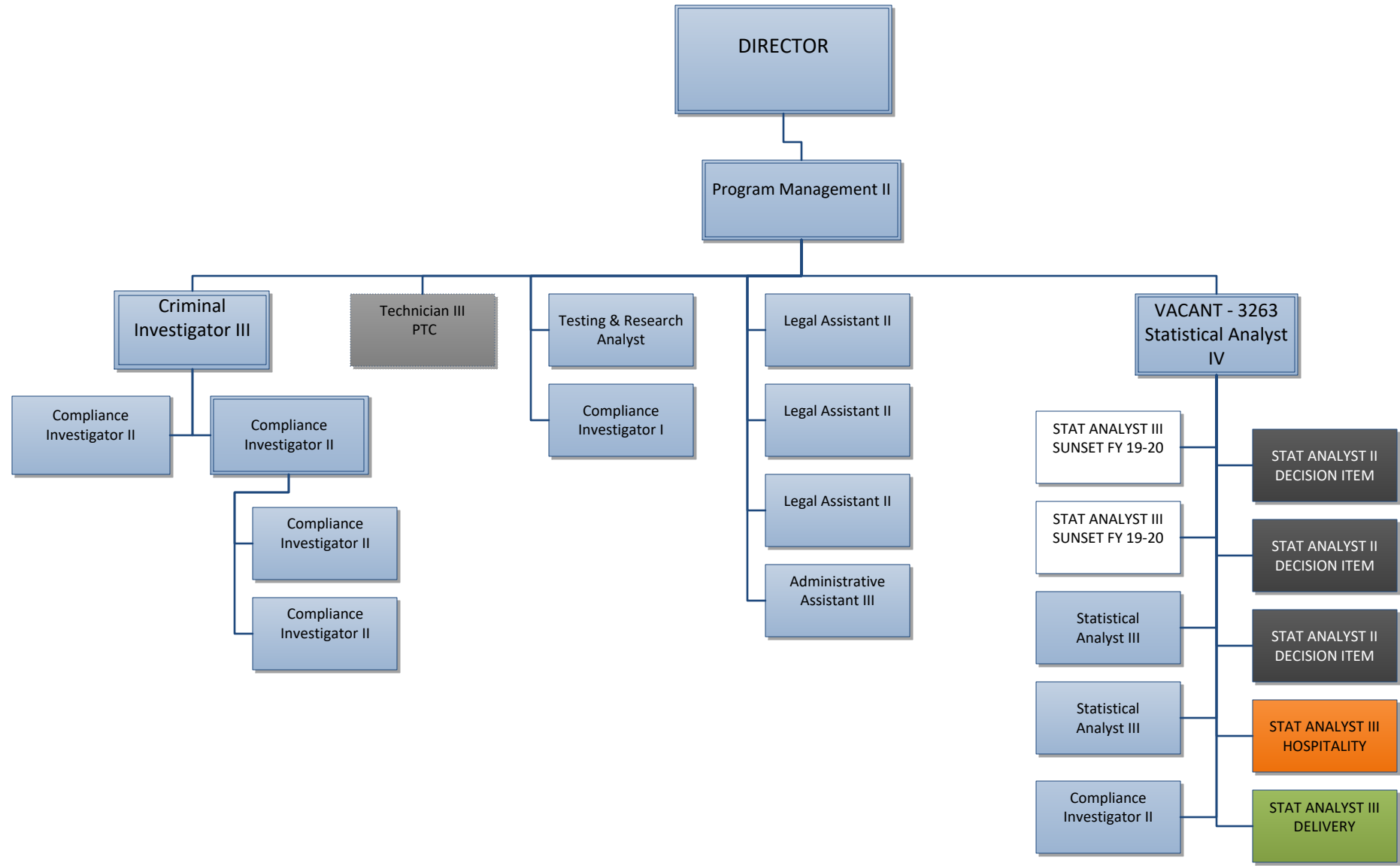
Investigations



Marijuana Enforcement Division
 Staff Plan – January 2020
 Current

Analysis, Planning, and
 Administrative Actions

DECISION ITEM	HOSPITALITY HB 19-1230	DELIVERY HB 19-1234	PTC HB 19-1090	SUNSET SB 19-224
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Marijuana Enforcement Division
Staff Plan – January 2020
Current

ADMINISTRATION

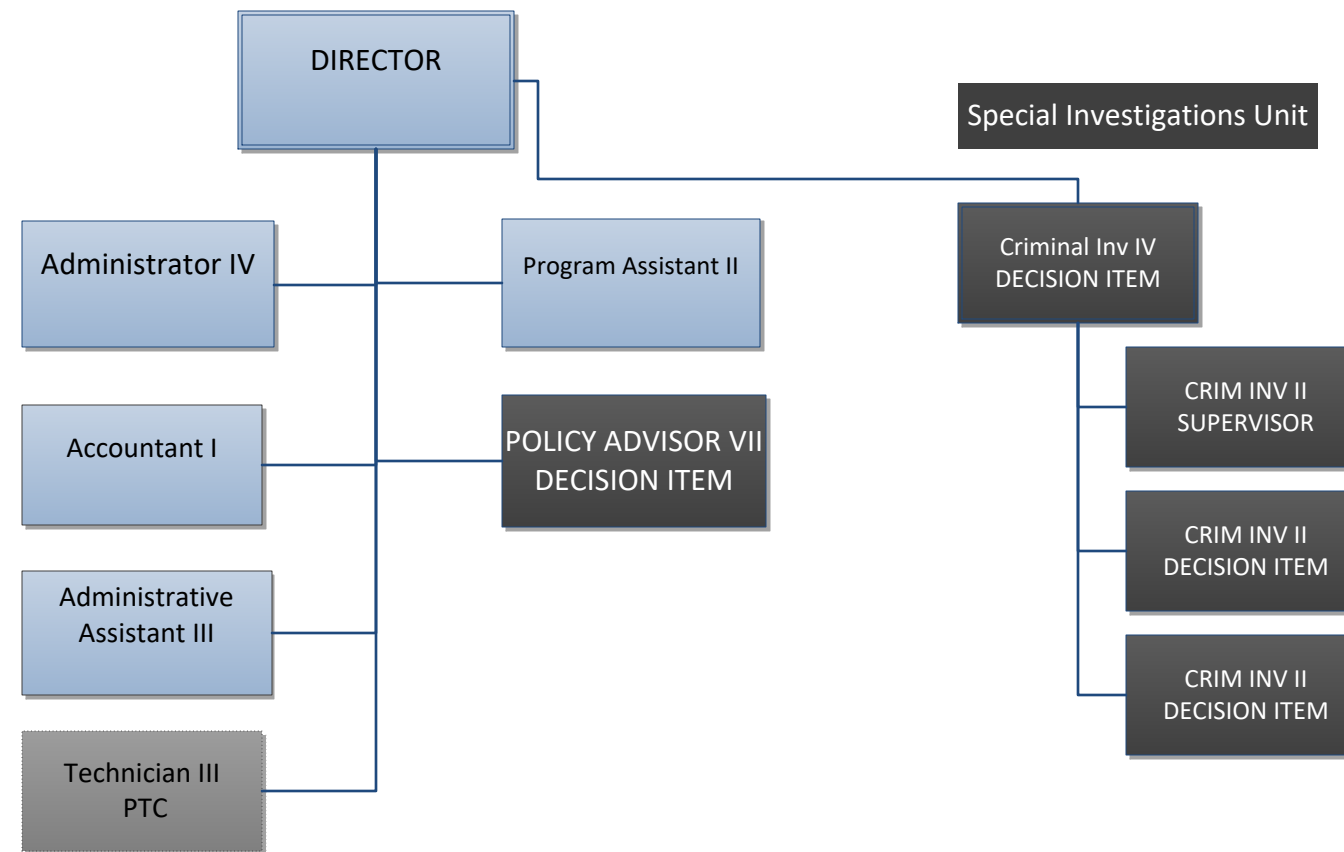
HOSPITALITY
HB 19-1230

DELIVERY
HB 19-1234

PTC
HB 19-1090

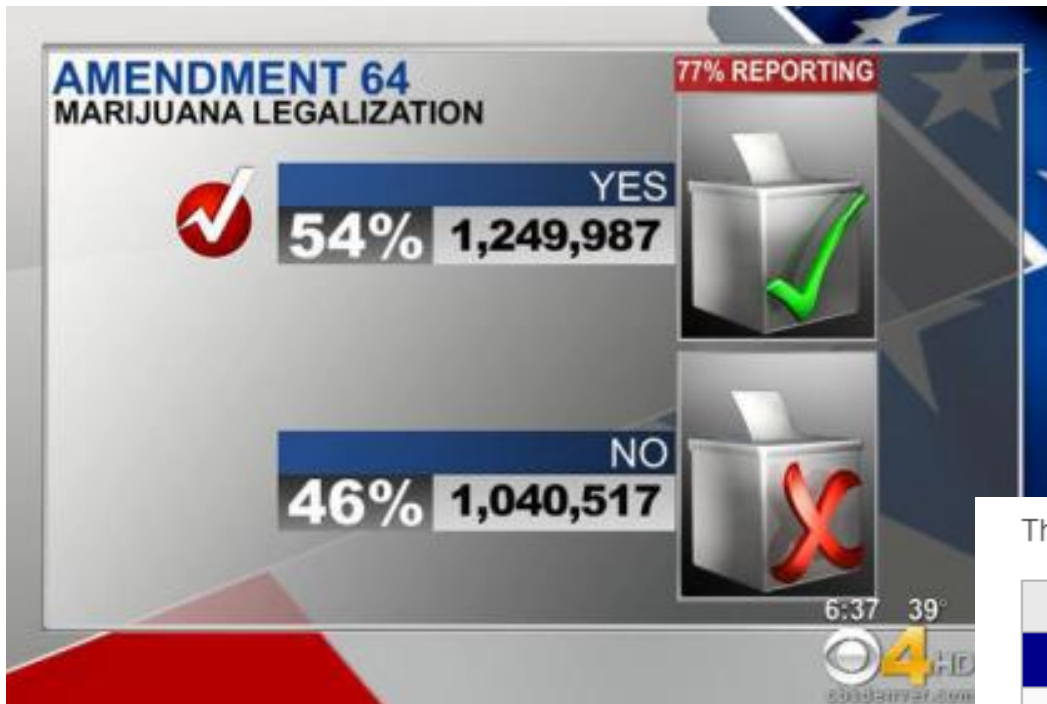
DECISION ITEM

SUNSET
SB 19-224





Colorado Voters spoke in 2012



The following are **official** election results:

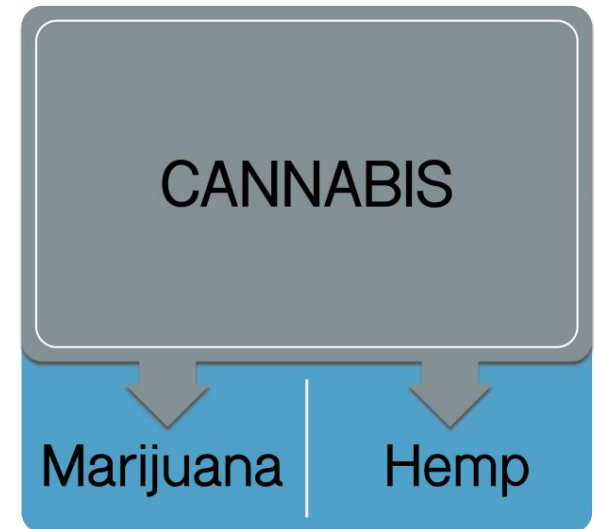
Colorado Amendment 64		
Result	Votes	Percentage
✓ Yes	1,383,139	55.32%
No	1,116,894	44.68%

Results via Colorado Secretary of State

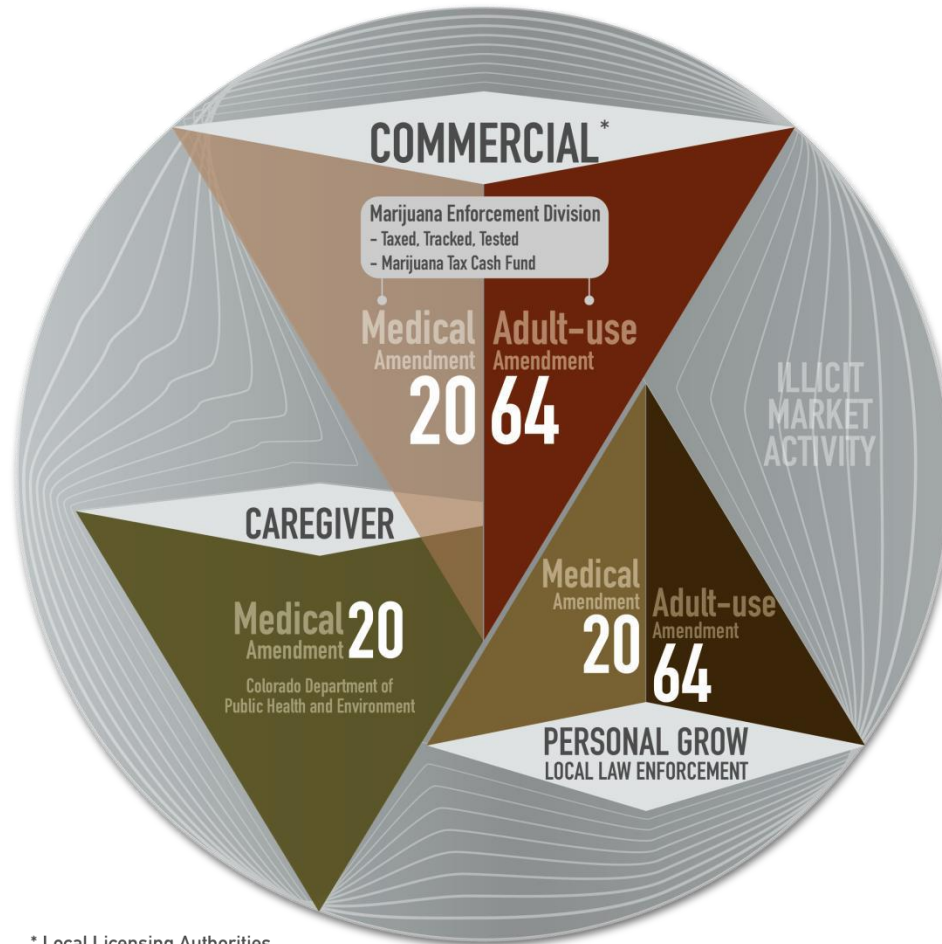
Source: <https://denver.cbslocal.com/2012/11/06/no-on-64-concedes-colorado-votes-in-favor-of-pot-legalization/>

Why is it so complicated?

- Illegal substance under Federal law
 - Cole memo priorities remain relevant
- Limited federal oversight
 - FDA, EPA, NHTSA, etc.
- Innovative, dynamic industry
- Lack of historical science and research
 - Federal role diminished
- Dual licenses required, both state and local
- Industrial hemp cultivations are regulated by the Colorado Department of Agriculture.
- CBD derived from industrial hemp used in food and beverage products are regulated by the Colorado Department of Public Health and Environment



Marijuana Landscape in Colorado

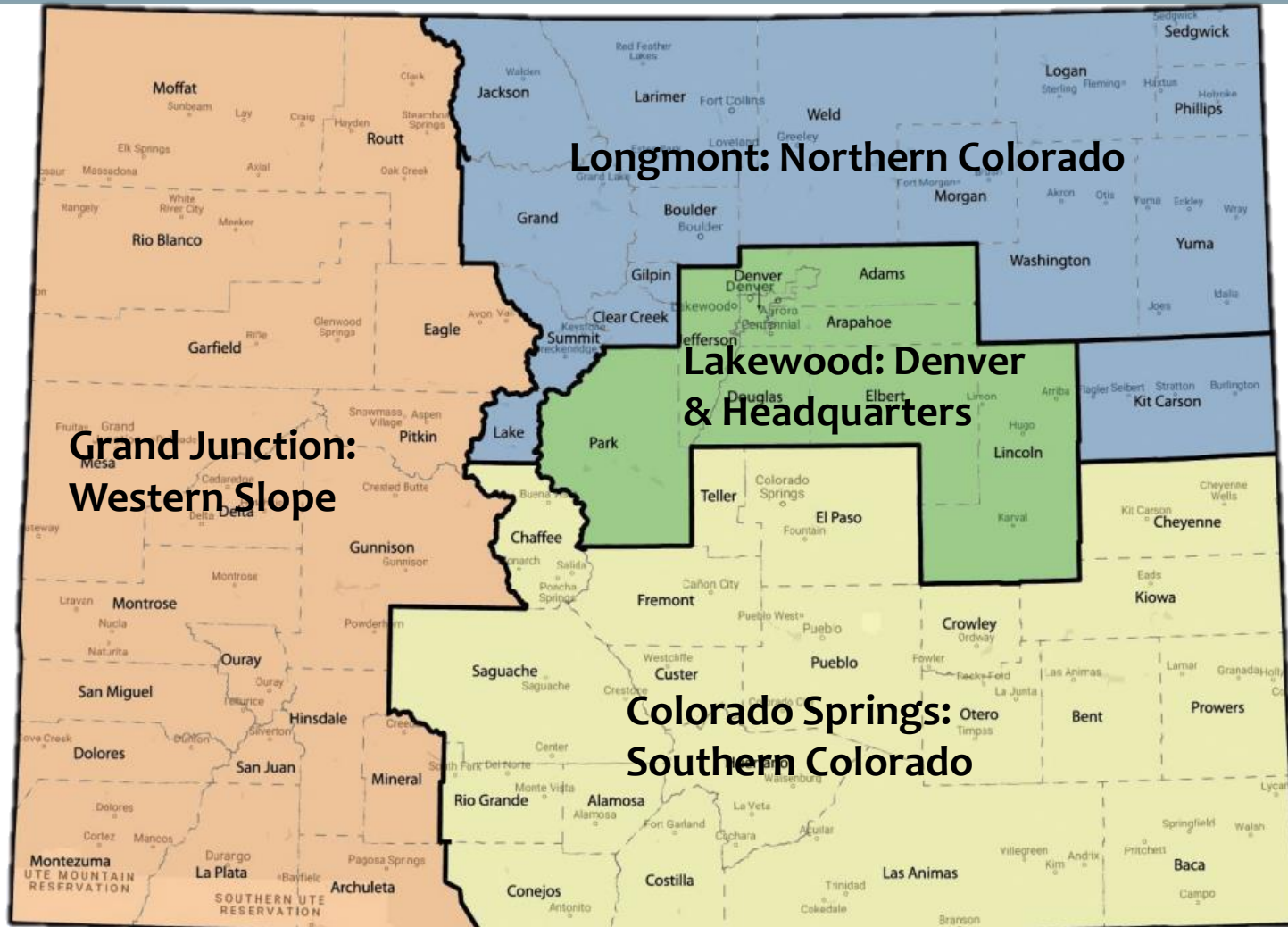


* Local Licensing Authorities

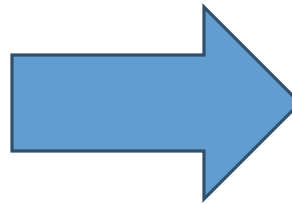
Who we are.



Where we are.



What we do.



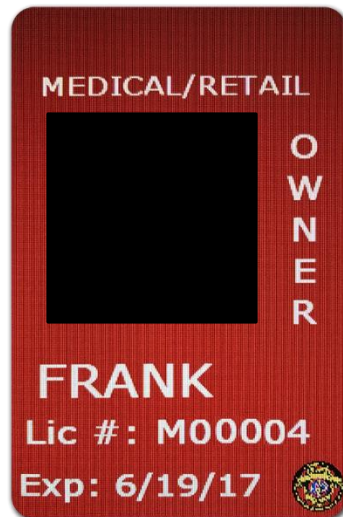
**TRACKED,
TAXED, TESTED**

Licensing Basics

1. MED issues licenses for both legal regulated marijuana businesses and marijuana employees.
2. Business applications include:
 - A completed [Regulated Marijuana Business License Application](#)
 - All applicable [Findings of Suitability \(Natural Person or Owner Entity\)](#) Applications
 - Supporting documentation
 - Payment
3. Owner and employee applications must include:
 - A completed [MED Employee License Application](#)
 - Identification
 - Fingerprints for criminal background check
 - Payment
4. Businesses must renew their licenses every year. Owners renew every year. Employees renew every two years.
5. Of note - new disqualifiers for licensure include:
 - Criminal history prohibitions for licensure have a reduced timeframe (from 5 to 3 years) during which a felony conviction will be considered a disqualification (including deferred sentences).

People

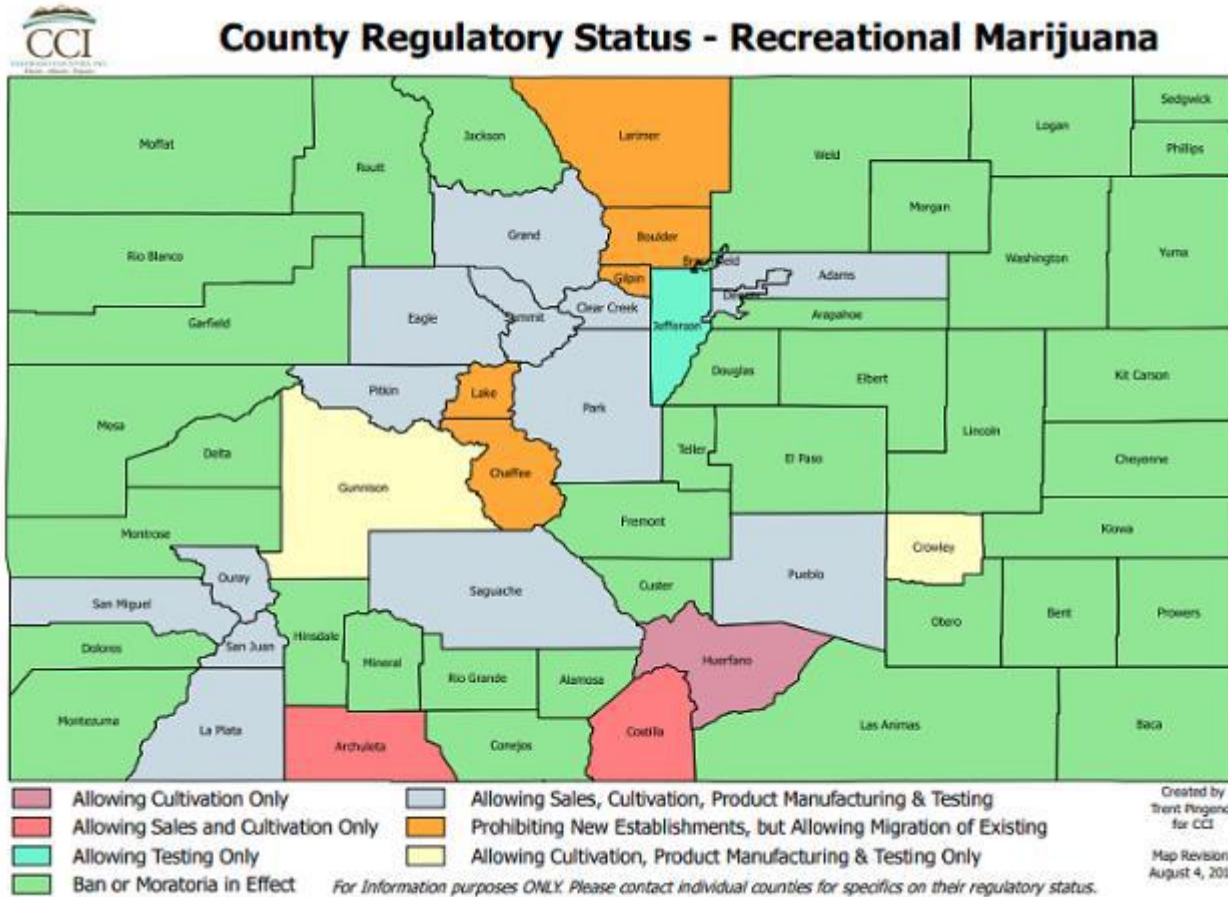
Occupational License Type	Number of Licenses (as of August 3, 2020)
Owners	1,732
Employees	39,642
TOTAL:	41,374



Places



Map of Local Jurisdictions



Colorado Counties, Inc.

Local Jurisdictions

- According to the Colorado Municipal League, there are 272 cities and towns in Colorado and 64 counties. Of these 336 local jurisdictions, 108 have opted in to legalize either medical marijuana, retail marijuana or both.
- While this is fewer than 1/3 of all jurisdictions, the most populated areas of Colorado have generally opted-in:
 - Denver, Aurora, Boulder, Colorado Springs as some examples
- For a list of all jurisdictions that have allowed commercial, regulated marijuana businesses, please see this list:
 - <https://drive.google.com/file/d/1GcdE3drg3xf74ix48ZsSME2sorEw2-go/view>

Number of Licenses

As of August 3, 2020, there are **2,760** licenses approved across the state.

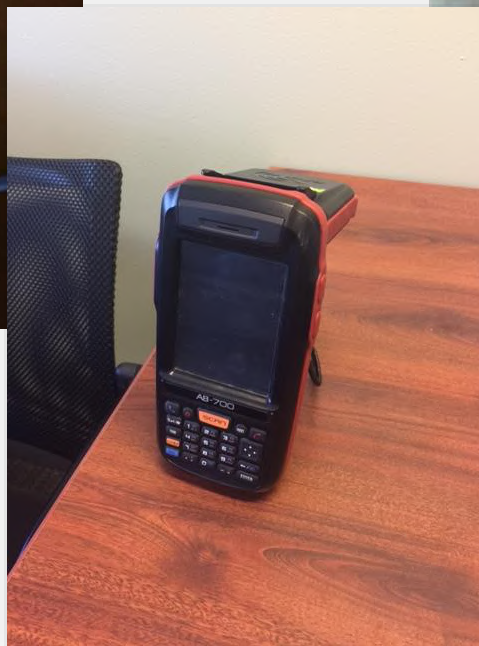
License/Permit Types	Medical Licenses	Retail Licenses
Stores	439	597
Cultivations	466	703
Infused Product Manufacturers	217	284
Testing Facilities	10	11
Operators	7	9
Transporters	7	10
Hospitality Establishments	n/a	3
R&D Facility	1	n/a
Delivery Permits	4	n/a
Totals	1,143	1,617

Plants

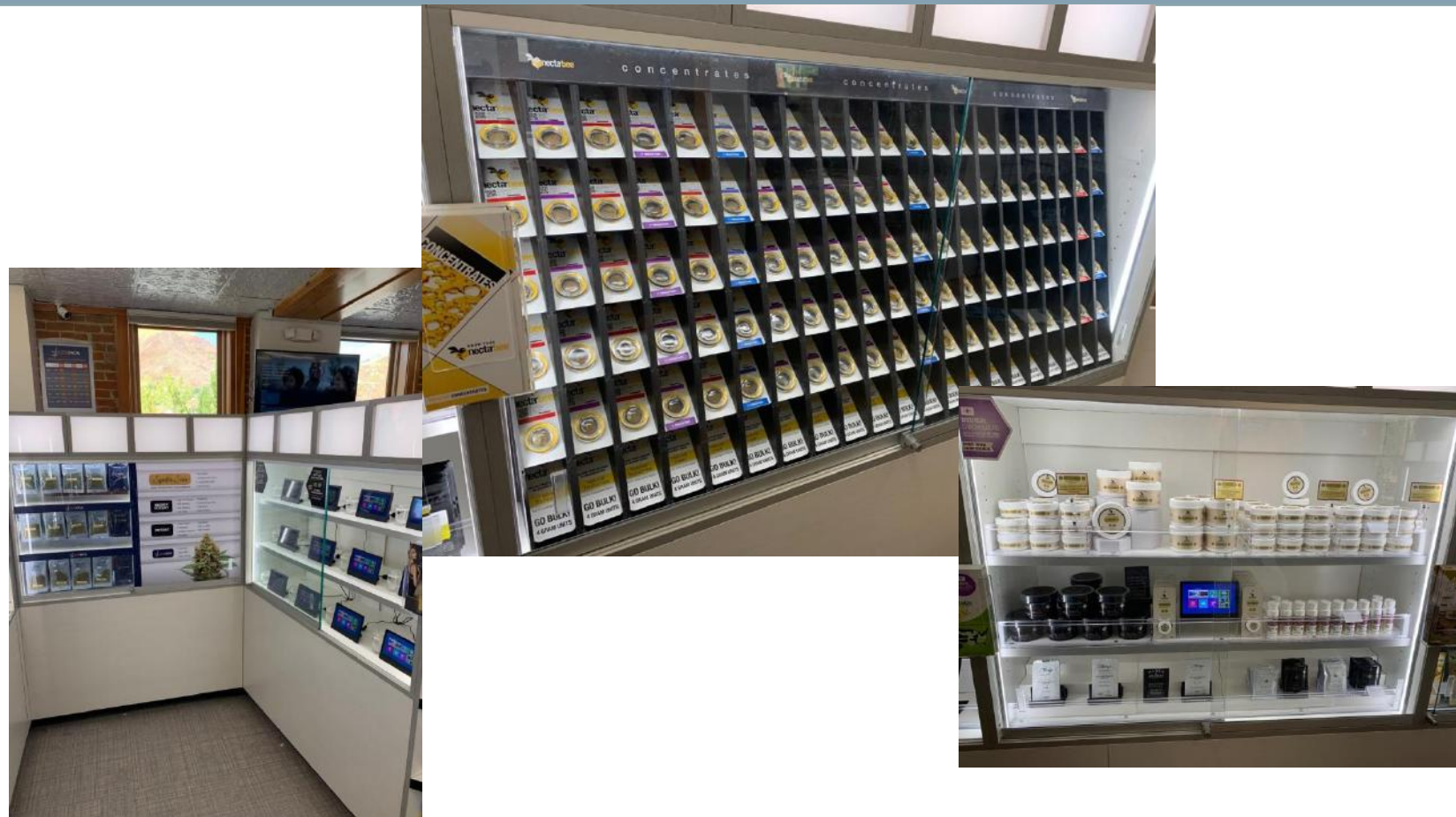


Colorado.Gov/Revenue

TRACKED, Taxed and Tested



Products



Source: TGS

Packaging and Labeling Requirements

- Child-resistant packaging is critical
- Putting only the most critical pieces of information on a label to prevent “white noise” effect. For example
 - Warning statements
 - Potency statement
 - Harvest/production batch numbers
 - Universal Symbol



Additional Public Safety Priorities

- Advertising
- Enforcement / underage compliance checks
- Edibles legislation
- Production management/limits
- Waste removal
- Restrictions on purchase amounts (looping)
- Restrictions on hours of operation
- Consumption prohibited on any licensed premises
- 24 hour video surveillance requirements

**PROHIBITED
EDIBLE SHAPES**



Tracked, Taxed and TESTED

Marijuana testing: including plants and products:

- Potency
- Homogeneity
- Pesticides
- Contaminants
 - Residual Solvents
 - Microbial

Of note:

- All marijuana testing labs must be ISO-accredited as of 1/1/19.
- Labs may elect to go through process validation
- MED aligns with Federal guidelines whenever possible



Image Source: https://www.rm3.us/assets/news-ncia-policy-council-testing-policy-report_final.pdf

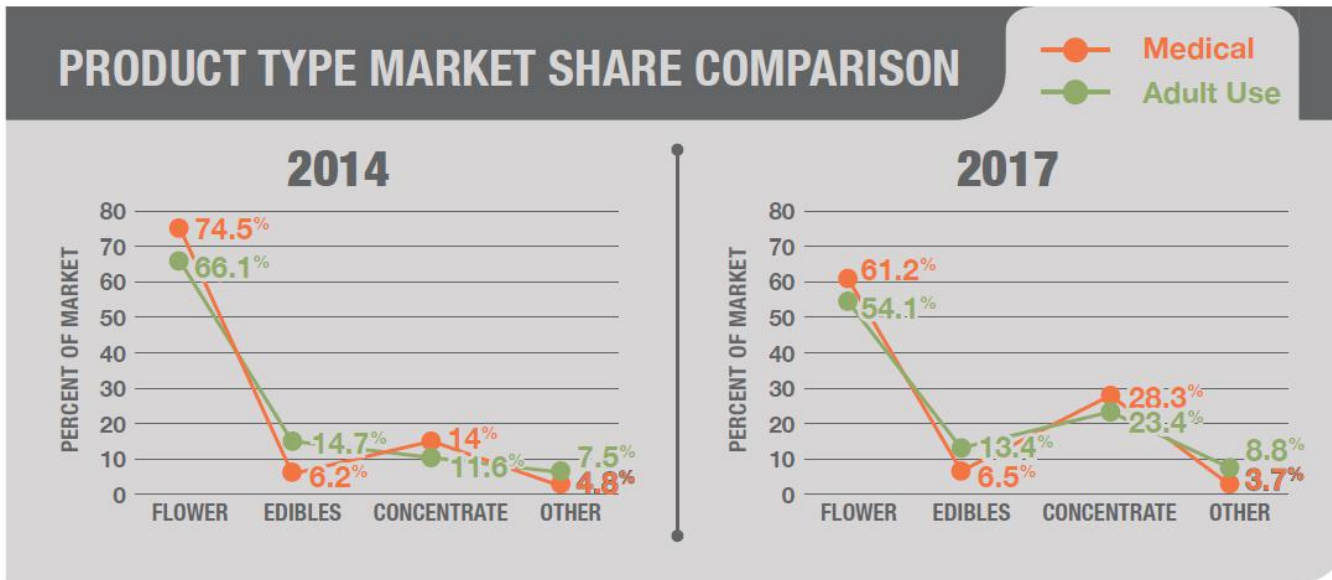
Data Collection & Production Management



TOP 10 OPERATORS

23.1%
OF TOTAL MARKET

HIGHLY COMPETITIVE MARKET



2019 Compliance and Criminal Investigations

Investigation Information

Table 16: Investigations Conducted by MED as of December 31, 2019

Investigation Type	Total Number of Investigations
Business Background Investigation	322
Change of Location Investigation	76
Change of Ownership Investigation	764
Change of Trade Name Investigation	64
Individual Background Investigation	517
Modification of Premises Investigation	386
Non-Qualified Sales Check Investigation (Percent Passed)	604 (97%)
Regulatory and Criminal Investigation	1,755
Renewal Investigation	4,098
Targeted Compliance Inspection	436

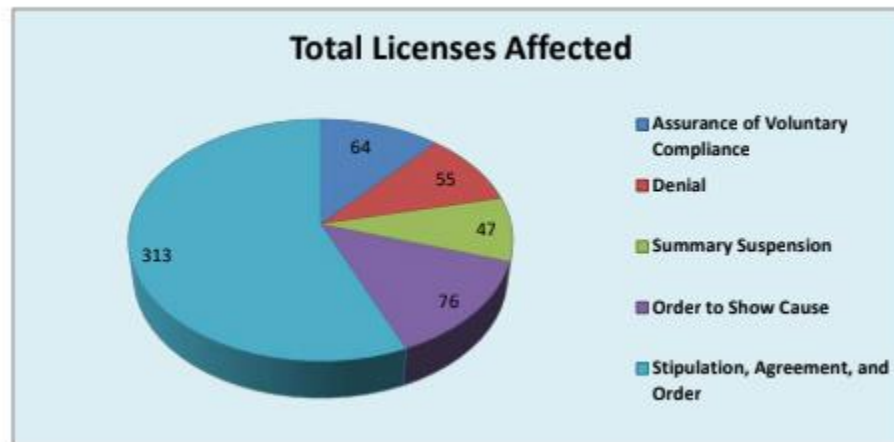
2019 Administrative Actions

Colorado Marijuana Enforcement Division: 2019 Annual Update

Table 17: Licenses Included in Administrative Actions as of December 31, 2019 (Multiple licenses may be included in a single Administrative Action)

	Medical Stores	Medical Cultivations	Medical MIPs	Medical Testing Facilities	Adult Use Stores	Adult Use Cultivations	Adult Use Product Manufacturers	Adult Use Testing Facilities	Owners or Occupational Badge Holder	Total Licenses Affected
Assurance of Voluntary Compliance	8	12	3	0	6	5	3	0	27	64
Denial	1	3	0	0	0	3	0	0	48	55
Summary Suspension	6	8	1	0	6	7	1	0	18	47
Order to Show Cause	1	3	1	1	8	12	1	1	48	76
Stipulation, Agreement, and Order	38	43	2	1	39	30	5	1	154	313
Totals	54	69	7	2	59	57	10	2	295	555

Volume of Administrative Actions by Type as of December 31, 2019 (Table 17)



Violations

1. License Violations Affecting Public Safety – Most Severe

- E.g. Unauthorized sale; permitting diversion; possessing marijuana from an unauthorized source; misstatements and omissions in METRC
- Penalties: Suspension; Fine – up to \$100,000; Revocation; Restriction

2. License Violations

- E.g. Failure to keep or maintain business records; minor clerical errors in METRC; packaging and labeling violations that do not have an immediate impact on public safety
- Penalties: Verbal or Written Warning; Suspension; Fine – up to \$50,000; Restriction

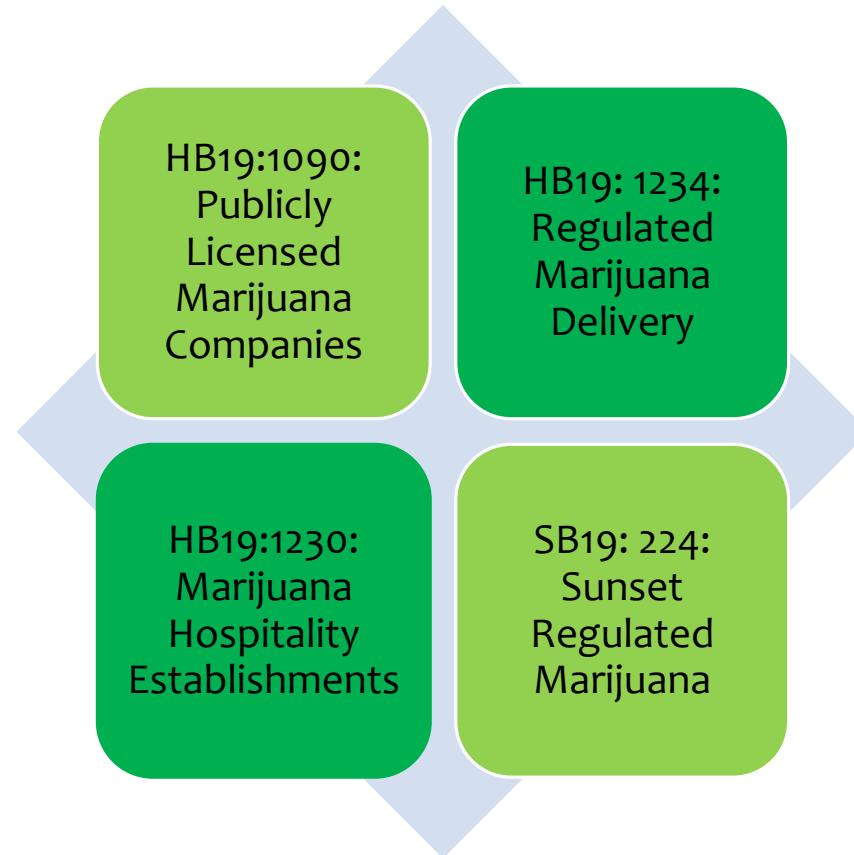
3. License Infractions

- E.g. Failure to display badge; unauthorized modifications of the premises of a minor nature
- Penalties: Verbal or Written Warning; Suspension; Fine – up to \$10,000; Restriction

Aggravating and Mitigating Factors

1. History of Violations
2. Good Faith Measures to Prevent
 - Supervision
 - Training
 - Standard Operating Procedures
 - Responsible Vendor Training Designation
3. Past Compliance Checks
4. Corrective Actions
5. Willfulness and Deliberateness
6. Circumstances Surrounding the Violation
 - Self-Reported
7. Owner or Manager Involvement

Landmark 2019 Legislation



1090 Basics

- Creates new ownership and investment definitions (Controlling Beneficial Owner; Passive Beneficial Owner; Indirect Financial Interest Holder).
- Permits certain publicly traded corporation ownership of regulated marijuana businesses as defined in 1090.
- Permits use of certain private investment vehicles for marijuana businesses (Qualified Private Fund).
- Amends ownership/investment disclosure and suitability requirements.
- Incorporates Federal securities terms and concepts.
- MED had specific rulemaking authority in the bill.
 - Rules include exemptions to requirements for suitability and change of owner applications.
- The bill included a safety clause and applies to applications made on and after November 1, 2019.

New Ownership Terminology: 1090

- **Controlling Beneficial Owner (CBO)**
 - Controls the Medical or Retail Marijuana Business (includes Executive Officers and directors)
 - Directly or indirectly owns $\geq 10\%$ of the Medical or Retail Marijuana Business, or
 - Qualified institutional investor holding $> 30\%$ of the Medical or Retail Marijuana Business
- **Passive Beneficial Owner (PBO)**
 - Not otherwise a Controlling Beneficial Owner or in control
 - Directly or indirectly owns $< 10\%$ of the Medical or Retail Marijuana Business, or
 - Qualified Institutional Investor owning $\leq 30\%$ of the Medical or Retail Marijuana Business
- **Indirect Financial Interest Holder (IFIH)**
 - Contract counterparty (lease, secured/unsecured lender, etc.)
 - Not yet converted permitted economic interest holder (prior to January 1, 2020)
 - Commercially Reasonable Royalty agreement

Suitability: 1090

- **Scope:**
 - *Criminal character or record*
 - Fingerprint criminal history record check to verify the applicant is not statutorily disqualified from being issued or holding a license because of a felony conviction or deferred judgment.
 - *Licensing character or record*
 - List of all Colorado DOR licenses held by the applicant for the previous 3 years.
 - List of all DORA licenses held by the applicant for the previous 3 years.
 - List of any marijuana business license held by the applicant from another State, U.S. Territory, District of Columbia or country.
 - Disclosure of any civil lawsuit involving the applicant and any regulated marijuana business.
 - *Financial character or record*
 - Disclosure of sanctions, penalties, assessments, or cease and desist orders imposed by a securities regulator other than the SEC.
 - Disclosure of 180 days account statements for any applicant acquiring 10% or more of the Owner's Interests in a regulated marijuana business.

Suitability Exceptions: 1090

- **Suitability Exemption:**
 - Only exemption is for a person who possesses an Owner License that has not been suspended or revoked in the preceding 365 days.
- **Exemptions to Change of Ownership Application:**
 - Entity conversion – no new CBOs. E.g. Colorado LLC to Colorado Corp.
 - Change of entity jurisdiction – no new CBOs. E.g. Colorado to Delaware.
 - Reallocation of Owner’s Interests among existing CBOs – no new CBOs.
 - Passive Beneficial Owner:
 - A person licensed prior to August 1, 2019 that is becoming a CBO, or
 - A person who will remain a Passive Beneficial Owner after the change.
- Change of Executive Officer or Member of the Board of Directors.
 - Suitability application required 45 days after becoming Executive Officer or member of the Board of Directors.

COVID-19's effect on marijuana businesses

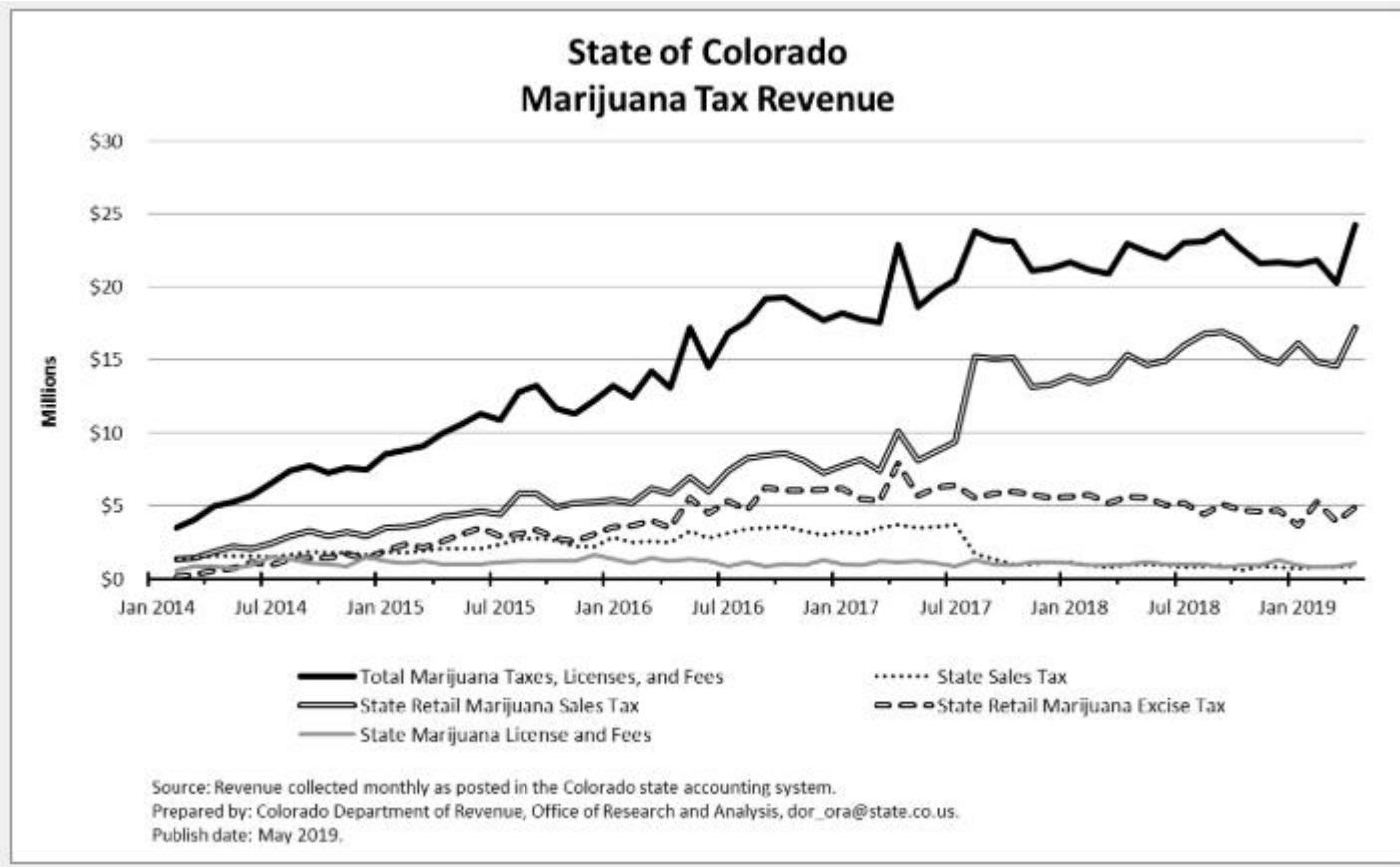
- Regulated marijuana businesses were designated as critical by Governor Polis, and were able to stay open (with caveats) during the Stay at Home order.
- Key COVID-19 Executive Orders and Emergency Rules* (including, but not limited to):
 - Online sales for retail marijuana
 - Allowance for “curbside” pick-up
 - Allowance for modification of premises to accommodate social distancing best practices without prior approval
 - Allowance of consumers and employees to wear masks
 - Automatic 30 day extension for certain business licenses

*COVID-19 [Emergency Rules](#) and [Industry Bulletin](#).

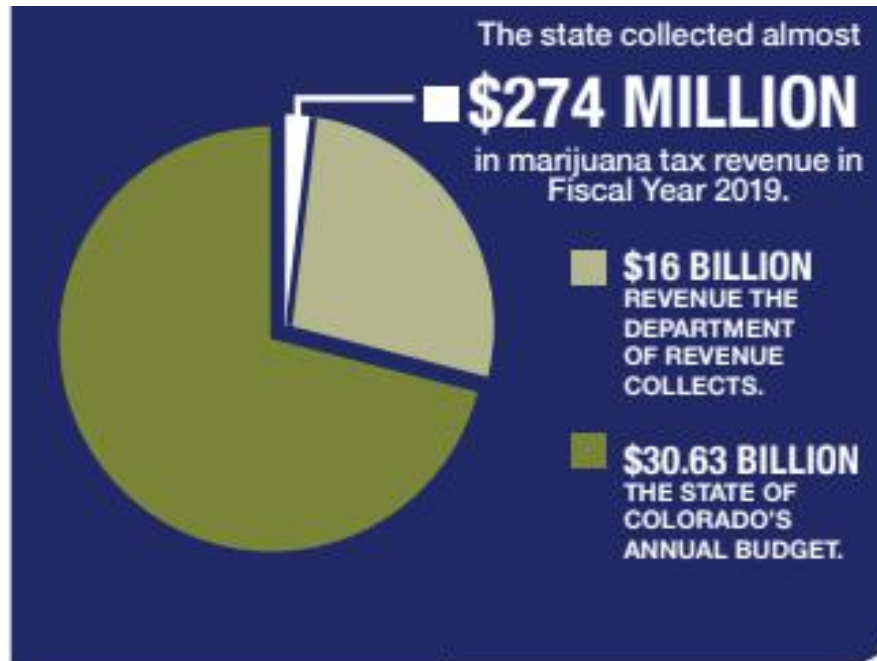
Sales, Revenue and Taxes



Tracked, TAXED and Tested

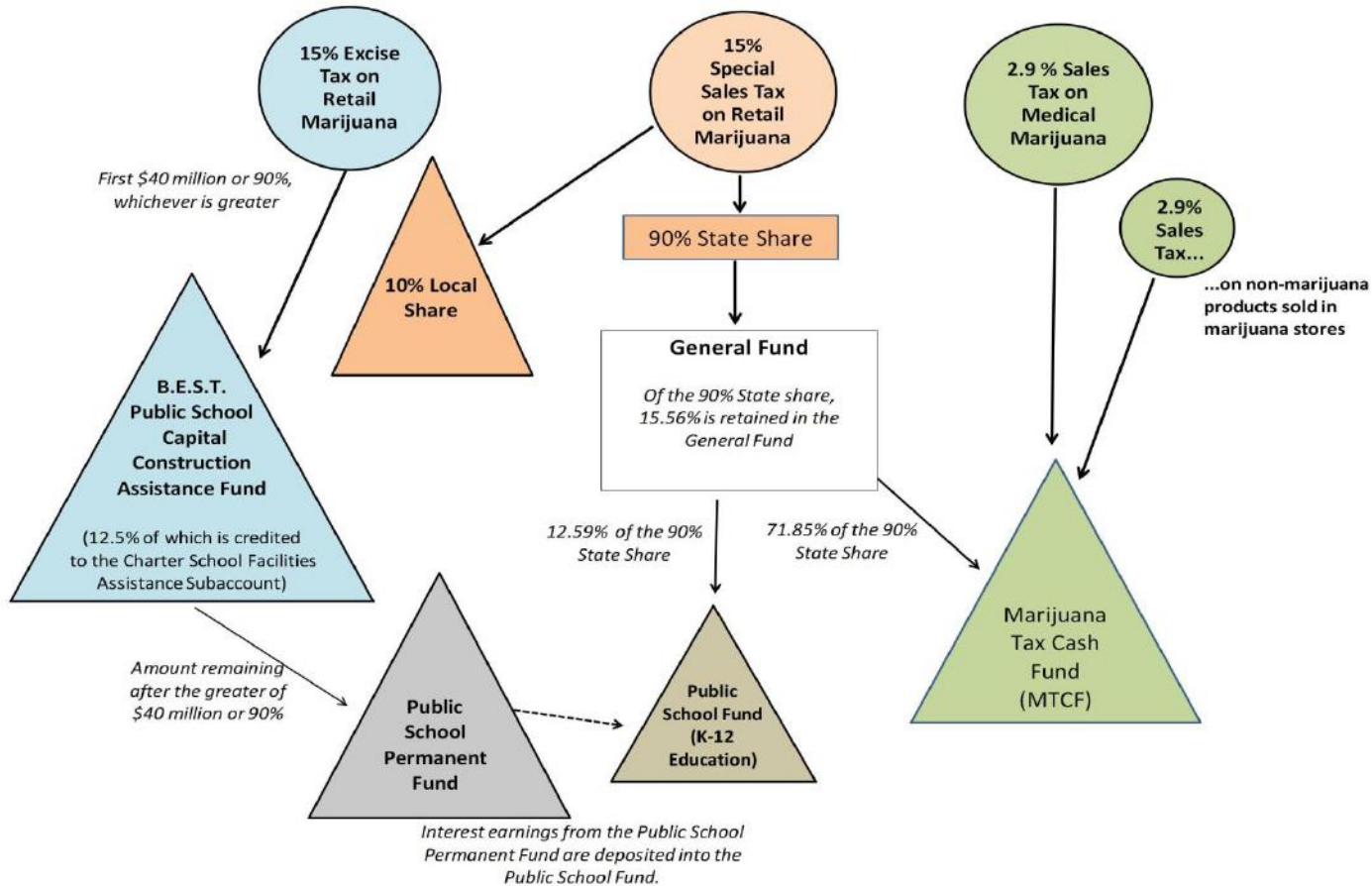


Marijuana Sales and Tax Revenue



Marijuana Tax Structure

Distribution of Marijuana Tax and Fee Revenue for FY 2018-19



For more information...

- MED mid-year and annual updates:
www.colorado.gov/pacific/enforcement/med-updates
- Department of Revenue's 2018 annual report:
www.colorado.gov/pacific/revenue/annual-report
- 2017 Market and Demand Study:
www.colorado.gov/pacific/enforcement/marijuana-related-reports-studies
- Marijuana monthly sales reports:
www.colorado.gov/pacific/revenue/colorado-marijuana-sales-reports
- Marijuana monthly tax revenue reports:
www.colorado.gov/pacific/revenue/colorado-marijuana-tax-data
- MED's Use of METRC Performance Evaluation:
http://leg.colorado.gov/sites/default/files/documents/audits/1925p_evaluation_of_dors_use_of_marijuana_inventory_tracking_data_august_2019.pdf

Contact Us

Travis Haley

Investments & Transactions

Marijuana Enforcement Division



www.colorado.gov/revenue/med

720-361-7083 | travis.haley@state.co.us

Thank you



Appendix 6

Fiscal and Structural Subgroup—Meeting Three Minutes

October 15, 2020

1:00 PM

Virtual Meeting via Webex

<https://www.youtube.com/watch?v=pOErYF8Y4Ck>

Meeting Attendees:

Secretary of Public Safety Brian Moran

Asst. Sec. of Health and Human Resources Catie Finley, on behalf of Secretary Daniel Carey

Jenn Michelle Pedini (Virginia NORML)

Commissioner Jewel Bronaugh (VDACS)

Kristin Collins (Tax Department)

Ngiste Abebe (Columbia Care)

Nate Green (Virginia Association of Commonwealth's Attorneys)

Dr. David Brown (Department of Health Professions, on behalf of Caroline Juran)

Kristen Collins (Tax Department), on behalf of Commissioner Craig Burns

Mike MacKenzie (VCU Wilder School)

Michael Carter (VSU Small Farm Outreach Program and farmer)

Colby Ferguson (DMV)

Dr. Sam Caughron (Charlottesville Family Wellness Practice)

Travis Hill (ABC)

Joe Mayer (Tax Department)

Charles Green (VDACS)

David Barron (DFS)

Richard Boyd (VSP)

John Welch (VSP)

Deputy Secretary of Public Safety and Homeland Security Nicky Zamostny

Staff:

Deputy Secretary of Agriculture and Forestry Brad Copenhaver

Jacquelyn Katuin, Policy Advisor to Secretary Moran

Commissioner Bronaugh began the meeting at 1:05 PM.

Approval of August 17, 2020 Minutes

- Commissioner Bronaugh called for a vote to approve the minutes of the subgroup's last meeting on September 11, 2020.

Roll Call Vote: 11 yes, 0 no

- Unanimous in favor of approval of minutes

Guest Speaker: Caroline Juran, Executive Director, Virginia Board of Pharmacy (BOP)

The BOP oversees the Pharmaceutical Processor Program (medical marijuana program). The BOP is one of 13 health regulatory boards in the Department of Health Professions (DHP). Their

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mission is to ensure safe and competent patient care by licensing health professionals, enforcing standards of practice, and providing information to health care practitioners and the public. DHP licenses and regulates licensees across 60 professions.

DHP is a non-general fund agency and must cover its expenses via licensing fees. Monetary penalties must be transferred to the state literary fund within the Department of Education.

The law requires 8 pharmacists and 2 citizen members to be appointed by the Governor to the Board. They currently have one vacancy of a citizen member.

In 2015, the General Assembly passed a law that provided an affirmative defense for patients to possess these oils but did not include a legal way for these oils to be produced in Virginia. In 2016, they passed a law authorizing these oils to be produced—5 processors (1 in each health district) to dispense CBD and THC-A oil to patients who have a prescription for intractable epilepsy. This had to be reenacted in 2017 to become law. Emergency regulations became effective in August 2017. In 2018, the law was expanded to include any diagnosed condition or disease. In 2019, the law was expanded again to include nurse practitioners and physicians' assistants to issue written certificates for obtaining these oils. This law also created authority for BOP to register a "registered agent" who may be designated by a patient to receive CBD or THC-A oil on his/her behalf (e.g. for a bedridden patient). The bill also created an ability for processors to wholesale distribute oils among themselves.

In 2020, the bill removed the affirmative defense, replaced "cannabidiol" and "THC-A oil" terms with "cannabis oil", removed 5% THC cap, but retains THC cap/dose, authorized use of telemedicine consistent with federal requirements for Rx drugs (patient cannot be at home—must be in a DEA registered facility), allowed persons temporarily residing in Virginia to obtain patient registration, and authorized up to 5 cannabis dispensing facility permits per health service area (HSA), which could take the number of sites up to 30 potentially.

The definition of cannabis oil is in statute. Cannabis oil" means: any formulation of processed Cannabis plant extract, which may include oil from industrial hemp extract acquired by processor, or a dilution of the resin of the Cannabis plant that contains at least 5 mg of CBD or THC-A and no more than 10 mg of delta-9-tetrahydrocannabinol per dose. Processors can now also obtain hemp-derived oil from VDACS registered hemp processors.

A pharmaceutical processor is a facility permitted by Board of Pharmacy. It must be a vertical operation that includes: indoor cultivation of Cannabis plants; production of cannabis oil; and dispensing of oils by pharmacist to registered patients. The permitting process was divided into 3 phases: initial application; conditional approval; issuance of the permit. At the conclusion of the competitive process, the board issued conditional approval to 5 applicants—they then had 1 year to build their facilities and become operational. Recently the board rescinded 1 of these approvals. 3 facilities are permitted and are in different stages of becoming operational, and the 4th facility is close to being permitted. Just recently, the first facility started dispensing products. During the initial application stage, each applicant paid a \$10K application fee; the 5 awarded conditional approval also paid a \$60K permit fee; and those permitted must pay an annual renewal fee of \$10K.

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Each processor operates under supervision of a pharmacist. Board quarterly inspections of the facilities are required. Oils independently laboratory tested prior to dispensing. Lab results are available upon request to patients, parents/guardians, and practitioners, and products must be registered by BOP.

(See Slide 13 for a list of current pharmaceutical processors).

They are required to perform lab testing of the products. This testing includes microbiological, mycotoxins, heavy metals, pesticide chemical residue, residual solvent, active ingredient analysis (CBD, CBDA, THC, THC-A). They must include a 6 month expiration date, unless a different date is based on a stability test.

Many things have taken a little longer than expected. It is hard to predict everything. During the RFA in 2018, we had to give the evaluation committee a little longer than expected to review applications (voluminous and large number of applicants). Each reviewer had to review 82 banker boxes worth of information, and we extended the period from 30 days to 60 days. We gave the processors 12 months to construct their facilities and become operational (every one needed a slightly longer period of time). We were told it would take approximately 3-6 months to cultivate and produce products. But it's October now, and our first processor has just started dispensing or is about to start dispensing any day now. We started issuing patient registrations in 2018 and have had to extend their 12 month expirations twice because we didn't think it was appropriate to require a renewal payment with no product available. So, many things in this process have taken a little bit longer than anticipated. Having said that, this is a large undertaking and a very fluid subject, and I think everyone has done a pretty impressive job to get this program operational.

Several vape formulations with high THC/THC-A concentrations are available now. Also, we have a low concentration THC/CBD oil for oral administration, a THC/THC-A nasal spray, and a low THC/CBD chewable product.

This is a tightly regulated medical programs, and there are requirements for what a practitioner must do: conduct an assessment and evaluation of the patient to develop a treatment plan; obtain patient's medical history, prescription history, current medical condition; diagnose the patient; be of the opinion that the potential benefits of cannabidiol oil or THC-A oil would likely outweigh the health risks of such use to the qualifying patient; explain proper administration, potential risks and benefits, prior to issuing the written certification; be available or ensure that another practitioner is available to provide follow-up care and treatment to determine efficacy of CBD oil or THC---A oil for treating the diagnosed condition or disease; access to the Virginia Prescription Monitoring Program; practitioner shall not delegate responsibility of diagnosing a patient or determining whether a patient should be issued a certification; cannot issue more than 600 certifications at any given time—can petition Boards of Pharmacy & Medicine for increase.

There are also several prohibited practices that a practitioner cannot do: directly or indirectly accept, solicit, or receive anything of value from any person associated with a pharmaceutical processor or provider of paraphernalia; offer a discount or any other thing of value to a qualifying patient, parent or guardian based on the patient's agreement or decision to use a

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particular pharmaceutical processor or cannabidiol oil or THC-A oil product; examine a qualifying patient for purposes of diagnosing the condition or disease at a location where cannabis oil is dispensed or produced; a practitioner, and such practitioner's co-worker, employee, spouse, parent or child, shall not have a direct or indirect financial interest in a pharmaceutical processor or any other entity that may benefit from a qualifying patient's acquisition, purchase or use of cannabis oil; a practitioner shall not issue a certification for himself or for family members, employees or co-workers; a practitioner shall not provide product samples containing cannabis oil other than those approved by the United States Food and Drug Administration.

We have a fairly straightforward registration application process online for all parties. We ask registrants to demonstrate that they are a resident or temporary resident of the Commonwealth and provide a copy of their written certification. There is a \$50 application fee initially and annually for patients and practitioners, and for parents/guardians and registered agents this is \$25.

Snapshot of registered patients as of October 9: Registered Practitioners: 537; Registered Patients: 5,920; Registered Parents/Guardians: 68; Registered Agents: 9. We have seen a steady stream of 200-250 applications for patients per week. So, if this program were to expand to include flower, we will have to give serious consideration to procuring a more robust software platform designed to register cannabis patients. Currently using our licensing database which is not ideal. It's somewhat manual and there is no continuity between the steps in the patient registration process: prescriber issuing a written certification, patient applying for registration, and patient obtaining oil from the processor. Other states have an electronic mechanism that ties all these steps together.

Dr. Bronaugh: Thank you for that comprehensive overview. Any questions for Caroline?

Sec. Moran: Yesterday we had a meeting about health impacts of marijuana, and we were looking forward to your presentation for lessons learned about setting up this program. Could you tell us more about your experience and what we could glean as we potentially move into the recreational world?

Ms. Juran: From an operational standpoint, expect things to take longer than you originally think. But some of the nuances, obstacles, and challenges we have already worked through. There will probably be additional issues related to the volume of items in an adult use program—DHP likely could not handle this, but there could be a role for us. Tax revenue will also be a challenge that we are not currently dealing with in the medical program. From a health effects standpoint, there is scant research about cannabis use in a medical setting. We know there are drug/drug interactions for some products. This is all overseen by pharmacists and practitioners.

Sec. Moran: Could you comment on the experience of vertical integration and how that has worked?

Ms. Juran: It is a lot of activity to occur under one roof, and it takes a lot of money to stand up one of these processors. It puts applicants that have resources in a position of being a stronger

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candidate. Most processors operate in multiple states. We see a trend in other states where they are trying to provide economic opportunity by spreading out those responsibilities. Our model is working fine, but it is expensive.

Asst. Sec. Finley: Could you give us a high level summary of how the types of products that are allowed works, especially given that we do not allow flower in this program? And could you also talk about the resource needs (FTEs)?

Ms. Juran: Our program is fairly expansive even though we do not allow the sale of flower. The cannabis oil definition is broad, and there is no THC cap. And practitioners can prescribe for any condition they see as necessary. So we are getting applications for high THC vaped products (40% THC—combination 27% THC-A). And the oral products seem to have lower concentrations. There are probably some patients that would prefer flower. But minus flower, we have a very expansive program in place. A potential workload increase would be associated with registering additional patients who are interested in purchasing flower if that is allowed. We do not have that manpower right now. We have about 6,000 patients, and some states have 50,000-70,000 patients.

Dep. Sec. Copenhaver: Can you explain more about the delays that you mentioned? What are the pitfalls to getting up and running?

Ms. Juran: The current processors could probably give a more detailed response, but some reasons were getting local permits and other permissions at the local level, construction and weather, getting materials, and maybe some financial aspects. For the one location where we rescinded approval, there just was not enough action at the site—there was no building yet at that site. That company also experienced a change in ownership, and that is something that seems to happen frequently in the industry.

Mr. Carter: What is the estimated cost of setting up one of these vertical operations?

Ms. Juran: We have heard it is in the millions of dollars, but I cannot provide specifics.

Ms. Abebe: It is typically a multimillion dollar investment—anywhere from 2-5 million to 12-15 million. Typically this model is generally used early in the industry to prevent diversion of products, and it is generally accepted now that vertical integration should not be required.

Dr. Caughron: Do you have any thoughts about personal cultivation?

Ms. Juran: That would really be up to the General Assembly. There may potentially be an impact to our program if that was allowed and our program was allowed to sell flower.

Dep. Sec. Copenhaver: If we have additional questions, we can follow up with Caroline.

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Guest Speaker, Travis Hill, Virginia ABC

ABC is an organization that regulates a controlled substance and the last substance that was one illegal. Since 2018, ABC has been an independent authority from the Commonwealth, but we work closely with the Secretary of Public Safety—this communication is important—budget requests and legislative issues. We have a part time board of 5 members appointed by the governor, and there is a requirement that they have a business requirement. CEO must also have a business background and is appointed by the governor. The board serves 5 year staggered terms, and can serve up to 2 terms.

The responsibilities of ABC: retailing distilled spirits, and regulating alcoholic beverages in Virginia. We are a “control state” and sell spirits both wholesale and retail. We operate 389 retail stores. Out of that, we generate about \$220 million in profits for the Commonwealth, and with taxes, we transfer over \$500 million to the Commonwealth each year. Some of that goes to DBHDS for treatment program and some goes to other set-asides. But the majority goes into the General Fund.

We regulate manufacturers, wholesalers, and retailers, and this is known as the “three tier system”. Vertical integration is not allowed for alcohol in Virginia. Over time, those lines have been blurred a bit—such as being able to consume on site at a brewery. We license these various entities, which we do with a bureau of law enforcement—over 100 staffer members (mid-80s of fully sworn agents). We also have a civilian staff of licensing and records management and tax collection.

Field agents are responsible for visits to licensed establishments. They work with them to ensure they are in compliance, and they are involved from the very beginning of the licensing process. We also continue to enforce unlicensed stills and untaxed liquor, but this is a smaller part of the responsibilities. In Virginia, in order to have a still, you need to have a license. You cannot make distilled spirits without a license, but you can do so for beer and wine as long as it does not enter the chain of commerce.

We also have compliance agents that are responsible for the wholesale and manufacturing tier. Agents work with breweries, wineries, and distilleries to ensure they are complying with all the laws for production and entering into the chain of commerce.

We also have a hearings division, and we hold 500 hearings a year on license application and license violation actions, such as underage sale or illegal behavior in business practices. All decisions are appealable to the circuit court.

We also have some tobacco enforcement capabilities. And this year, we are doing a little bit in the realm of regulating gaming devices for “games of skill”. We had to stand this up pretty quickly this year.

We have an effort to move our licensing system all online—make engagement with the regulated community more seamless.

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We generate a forecast based on our profits and we fund our own operations. This is included in the Governor's introduced budget and is incorporated into the budget by the General Assembly. We also have Chief Tom Kirby with us today.

Chief Kirby: I am more than happy to answer questions. In the enforcement division, we have just under 200 staff members that do all of that work. We maintain about 18,000 retail licenses in Virginia. We process about 2,000 applications each year for new licenses. For games of skill, we took in about 87 distributors, representing about 10,000 games. We are in the process now of continuing to monitor that activity—we track movement of the machines and collection of the taxes associated with them.

Group Discussion

Dr. Bronuagh: We need to get to a point where we are making some recommendations. Some folks wanted to know a status report of the JLARC report. We also want to consider questions like: who should serve as the primary regulator, where should the leadership be housed, what should the tax structure be, are there any public health priorities we would like to focus on for revenues, and what licensing models would we like to consider?

Mr. MacKenzie: We are working with Tax and VEDP to do some economic modeling. We met with morning. We are not trying to duplicate the work of JLARC. We are talking about what the final product will look like, and our models will likely be comparative with other states.

Dep. Sec. Copenhaver: We did have a meeting with JLARC to discuss. There is only so much they are able to share with us, but we are confident our reports will be complimentary. We are confident that we are on the right track with our topics. Also, we just need to remember that our processes are very different from JLARC's (more closed vs. more open). And JLARC has had many more resources to do their economic analysis.

Dr. Bronaugh: Now, let's open the discussion of the different topics this group needs to discuss and see where there are areas of consensus. One area of discussion is about who can serve as the primary regulator. Other states' programs are all over the board. Would this be under one agency or multiple agencies? We have learned that it is a best practice not to spread responsibilities too much.

Mx. Pedini: This is a conversation that has been ongoing. We currently have BOP regulating medical cannabis, and we have VDACS regulating hemp, including products for human consumption. This is already a bit cumbersome, and we need a regulatory agency that can create a cannabis ecosystem. We need something that can house all three (including adult use) and oversee consumer safety.

Dep. Sec. Copenhaver: Would that be something that would be an umbrella and cover different agencies, or would be more like a brand new agency where everything goes?

Mx. Pedini: That is really the big question. We can't overlook that BOP is involved in the process and as long as a pharmacist is involved, BOP will be as well to some extent. And we

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have industrial hemp at VDACS. Do we want to shift all of that to a new agency? Or create an umbrella of sort?

Ms. Abebe: There are some challenges that BOP faces due to their revenue situation. We should strive for a more synchronized regulatory environment. For example, a CBD shop can advertise, and this has led to cartoon cannabis leaves as logos. Being able to have some consistency so the average consumer understands what they are seeing is important. Where do folks currently inside government see a structure like this fitting in?

Dep. Sec. Copenhaver: We don't want to have to legislate pathways for agencies to connect. It is difficult to think through how an umbrella would work that leaves autonomy for other agencies. Also, keep in mind that VDACS is running a hemp program that is federally compliant, which is different. If we have to thread them all together, would we forget to draw those connections? Would it be easier to just put everything in one agency?

Mx. Pedini: One solution about the hemp issue could be to bifurcate out industrial hemp and those hemp derived products that are intended for human consumption. Also remember that the medical licensees are also likely to be licenses in adult use as well.

Mr. Hill: If you have legalized marijuana for adult use, where do you draw the line between recreational adult use and medical? What we heard from Massachusetts is that we need to take the time to get it right and also don't forget about how much money will be needed to set this up.

Mx. Pedini: We have existing regulators that can fill in the gap from the time the state legalizes marijuana to when retail sales begin. If we do not provide a solution with our existing regulators, we could encourage an illicit market. We started our medical program with no state funding. Even if we have adult use, there is definitely a need to maintain a medical program, which serves pediatric patients and others who need a healthcare experience. We are not rushing into this as a state—we have taken 5 years to get to this point with our medical program. No state gets it right the first time.

Ms. Abebe: Cannabis is a plant that can be used for industrial purposes, medical purposes, and adult use purposes, and we don't really have a good model in our government for how to deal with all three of those things at one time. We have data that show that in more mature markets, about 2/3 of the folks coming into an adult use dispensary are coming in for health and wellness reasons. This is similar to going to a pharmacy and getting your prescription and also getting over the counter products. Cannabis is on a similar kind of spectrum. It is different though because it can also be used for a recreational purpose. We know how to regulate this though and encourage responsible consumption.

Dr. Bronaugh: Shouldn't this report at least recommend that we include some appropriated funding to start a program—it is very hard to start a program with just existing resources.

Mx. Pedini: Funding would be helpful.

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Ms. Juran: I see DHP aligned on the medical side, but not really on the adult use side. What role do you envision us have in the adult use program?

Mx. Pedini: The board's involvement would probably limited to however a pharmacist is involved in the process. There may be an early time where we need help with early sales too.

Ms. Juran: Would it then even be appropriate to have a pharmacist involved in the adult use program?

Mx. Pedini: Probably not, but we could still have both adult use and medical operators.

Ms. Juran: If this current program under BOP oversight is envisioned to transition to adult use, resources would be a concern. We have heard examples of when states have legalized, most people switch out of the medical program and over to adult use.

Ms. Abebe: There are differences between the western and eastern states who legalized. The more recent, eastern states have maintained a robust medical program. The Illinois used fees on the existing medical providers to help with the transition to the adult use program.

Dep. Sec. Zamostny: Can you explain more about how the new telemedicine allowance works? Is this due specifically with this issue or the ongoing telemedicine issue that has been going on for a long time in Virginia?

Mx. Pedini: This is specific to the medical cannabis issue.

Dr. Caughron: The restrictions on telemedicine for dealing with cannabis are higher than in general.

Dep. Sec. Zamostny: Is that based on just the type of substance this is?

Dr. Caughron: The requirement will likely become antiquated in the future.

Ms. Juran: The requirement currently in place is consistent with federal requirement that is in place for prescribing Schedule 2-5 substance, and the idea was that we wanted to mirror that requirement because marijuana seems to align more with those.

Dr. Caughron: That requirement may have changed recently.

Ms. Juran: There may be some waivers in place because of the pandemic.

Dr. Bronaugh: We need to consider what we think the license and market structure would look like. What do we feel would be the most beneficial for creating economic opportunity in the Commonwealth?

Ms. Juran: There are some valid points made about creating opportunities by separating out parts of the supply chain and not requiring vertical integration.

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Mx. Pedini: We need to focus on creating opportunity and lowering barriers to entry into this industry. We need a structure that allows for this opportunity but does not complicate things for the consumer. Some states have a separate distributor license, and that can create additional costs for the consumer at the end of the day. Some states allow both vertical and tiered systems to exist side by side. And we also need to think about other categories, such as delivery and hospitality.

Ms. Abebe: There is no way to have an equitable program if you require vertical integration, but the medical processors are already up and running and have had to comply with certain regulations. So vertical integration should be allowed but not required. On the hospitality front, we need to think about social consumption as well. Cigar lounges are a good example of how to do this. Also, if you live in federally-subsidized housing, you would not be allowed to legally consume something that you bought as a medication, so that is another reason why social consumption spaces are important. We also need to figure out the right amount of employee protections for folks who are consuming. There is good model language in other states that maintains federal compliance but also outlines employer rights.

Mr. Carter: A license for cultivators should be similar to what is required for hemp now. And it would be preferable to have the retailers collect the tax rather than at the farm level.

Ms. Abebe: For those selling both adult use and medical cannabis, the later the taxation point is, the easier it is to manage supply. It also simplifies the accounting for industry participants.

Mr. Hill: It probably needs to be a broader set of licenses rather than very specific. This will allow businesses to be creative and also create efficiencies. The taxation structure is going to play a large role in how markets form.

Public Comment

Paul McLean, Virginia Minority Cannabis Coalition: Has the state been involved at all in the choice of strains that the medical processors can produce? Has there been any social equity components within the medical processors?

Ms. Abebe: There is no mandate from the state regarding which strains we grow. There is no social equity component to the existing program, but Columbia Care has its own initiatives at the company level.

Ms. Juran: The law does not specify types of strains. And the law does not contain any requirements with regard to social equity.

The group also discussed having one additional meeting to discuss items where consensus has not yet been reached.

Commissioner Bronaugh adjourned the meeting at 3:10 PM.

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Chat Box During Meeting

from Sarah Blahovec to all panelists: 1:49 PM

Hello, my name is Sarah Blahovec. My question: what, if anything, is being done to ensure ADA compliance of both the physical locations of the dispensaries and web accessibility of dispensary websites (WCAG 2.0 AA rating or higher?)

from Sarah Blahovec to all panelists: 1:50 PM

Thank you!

from Sara Payne to all panelists: 2:21 PM

The hemp program is only partially federally legal - it depends on which federal agency you ask.

from Sara Payne to all panelists: 2:22 PM

No hemp CBD products intended for human or animal consumption are "legal" if you ask FDA.

from Sara Payne to all panelists: 2:45 PM

Often the medical program decline is reflective of how difficult it is for patients to navigate the medical program involved (and as Ngiste mentioned, product access and availability). Product cost is another issue that drives medical program decline, and declines are often exacerbated when botanical (less expensive) products are not available in the medical program.

Virginia Board of Pharmacy

Fiscal and Structural Subgroup
Marijuana Legalization

October 15, 2020

Caroline D. Juran, RPh
Executive Director, Board of Pharmacy

Department of Health Profession

- Mission: To ensure safe and competent patient care by licensing health professionals, enforcing standards of practice, and providing information to health care practitioners and the public.
- 13 health regulatory boards, Board of Health Professions, Prescription Monitoring Program, Health Practitioners' Monitoring program, Healthcare Workforce Data Center
- Regulates healthcare practitioners over 60 professions



Department of Health Profession

- Non-General Fund agency
- Must cover expenses through licensing fees
- Monetary penalties must be transferred to State Literary Fund within DOE



Board Members

Kristopher S. Ratliff, <i>Chairman</i>	Ryan K. Logan
Cheryl H. Nelson, <i>Vice Chairman</i>	William Lee
Glenn Bolyard	Sarah Melton
vacant, <i>Citizen</i>	Patricia Richards-Spruill
James L. Jenkins, Jr., <i>Citizen</i>	Dale St.Clair



Pharmaceutical Processor Laws

2015

- Authorized physician to issue written certification providing affirmative defense for possessing CBD oil and THC-A oil

2016

- Directed BOP to oversee CBD oil and THC-A oil production and dispensing by up to 5 pharmaceutical processors for treatment of intractable epilepsy

5



Pharmaceutical Processor Laws

2017

- Reenacted legislation, as required by 2016 bill.
- August 2017: Emergency regulations became effective; establish health, safety and security requirements for processors

2018

- Expanded program to allow physician to issue certification for the use of CBD oil or THC-A oil for the treatment of any diagnosed condition or disease

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Pharmaceutical Processor Laws

2019

- Expanded authority to physician assistants and nurse practitioners to issue written certifications
- Created authority for BOP to register a “registered agent” who may be designated by a patient to receive CBD or THC-A oil on his/her behalf
- Allows processors to wholesale distribute oil products between processors

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Pharmaceutical Processor Laws

2020

- Removes affirmative defense
- Replaces “cannabidiol” and “THC-A oil” terms with “cannabis oil”; removes 5% THC cap, but retains THC cap/dose
- Authorizes use of telemedicine consistent with federal requirements for Rx drugs
- Allows persons temporarily residing in Virginia to obtain patient registration
- Authorizes up to 5 cannabis dispensing facility permits per HSA

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§54.1-3408.3

- “Cannabis oil” means:
 - any formulation of processed Cannabis plant extract, which may include oil from industrial hemp extract acquired by processor, or a dilution of the resin of the Cannabis plant
 - that contains at least 5 mg of CBD or THC-A and
 - no more than 10 mg of delta-9-tetrahydrocannabinol per dose.

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Pharmaceutical Processor

- Facility permitted by Board of Pharmacy
- Vertical operation:
 - Indoor cultivation of Cannabis plants;
 - Production of cannabis oil;
 - Dispensing of oils by pharmacist to registered patients

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Pharmaceutical Processor, cont.

- Operates under supervision of a pharmacist.
- Board quarterly inspections required.
- Oils independently laboratory tested prior to dispensing.
- Lab results available upon request to patients, parents/guardians, practitioners.
- Products must be registered by BOP

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Pharmaceutical Processors

- HSA I = vacant
- HSA II = Dalitso LLC, Manassas
- HSA III = Dharma Pharmaceuticals, Bristol
- HSA IV = Green Leaf Medical of Virginia LLC,
Richmond
- HSA V = Columbia Care Eastern Virginia LLC,
Portsmouth

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Lab Testing of Oil Products

- Microbiological
- Mycotoxin
- Heavy metals
- Pesticide chemical residue
- Residual solvent
- Active ingredient analysis (CBD, CBDA, THC, THC-A)
- Expiration date based on stability test

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Availability of Oil Products

- Approximately 3-6 months to cultivate and produce oils
- Processor anticipates availability of oils in August
- Patients may access any of the pharmaceutical processor sites

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Virginia Department of

Health Professions

Practitioner Requirements

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Virginia Department of

Health Professions

Practitioner Requirements

18VAC110-60-30

- Conduct an assessment and evaluation of the patient to develop a treatment plan; obtain patient's medical history, prescription history, current medical condition
- Diagnose the patient;
- Be of the opinion that the potential benefits of cannabidiol oil or THC-A oil would likely outweigh the health risks of such use to the qualifying patient;

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Virginia Department of

Health Professions

Practitioner Requirements, cont.

- Explain proper administration, potential risks and benefits, prior to issuing the written certification;
- Be available or ensure that another practitioner is available to provide follow-up care and treatment to determine efficacy of CBD oil or THC-A oil for treating the diagnosed condition or disease;
- Access to the Virginia Prescription Monitoring Program;

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Virginia Department of

Health Professions

Practitioner Requirements, cont.

- Practitioner shall not delegate responsibility of diagnosing a patient or determining whether a patient should be issued a certification.
- Cannot issue more than 600 certifications at any given time. Can petition Boards of Pharmacy & Medicine for increase.

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Practitioner Prohibitions

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Prohibited Practices of Practitioner, 18VAC110-60-40

- Directly or indirectly accept, solicit, or receive anything of value from any person associated with a pharmaceutical processor or provider of paraphernalia;
- Offer a discount or any other thing of value to a qualifying patient, parent or guardian based on the patient's agreement or decision to use a particular pharmaceutical processor or cannabidiol oil or THC-A oil product;

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Virginia Department of

Health Professions

Prohibited Practices of Practitioner, 18VAC110-60-40

- Examine a qualifying patient for purposes of diagnosing the condition or disease at a location where cannabis oil is dispensed or produced;
- A practitioner, and such practitioner's co-worker, employee, spouse, parent or child, shall not have a direct or indirect financial interest in a pharmaceutical processor or any other entity that may benefit from a qualifying patient's acquisition, purchase or use of cannabis oil

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Virginia Department of

Health Professions

Prohibited Practices of Practitioner, 18VAC110-60-40

- A practitioner shall not issue a certification for himself or for family members, employees or co-workers
- A practitioner shall not provide product samples containing cannabis oil other than those approved by the United States Food and Drug Administration.

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Board Registrations

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Registrations

- Online applications
- Patient & Practitioner = \$50 initial and annual fee
- Parent/Legal Guardian = \$25 initial and annual fee
- Registered Agent = \$25 initial and annual fee

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Virginia Department of

Health Professions

Registrations as of 10/9/2020

- Registered Practitioners: 537
- Registered Patients: 5,920
- Registered Parents/Guardians: 68
- Registered Agents: 9

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Virginia Department of

Health Professions

Contact Information

Department of Health Professions
Virginia Board of Pharmacy
Perimeter Center
9960 Mayland Drive, Suite 300
Henrico, VA 23233
(804) 367-4456

cbd@dhp.virginia.gov – CBD, pharmaceutical processor –
related questions

pharmbd@dhp.virginia.gov - General board questions

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Appendix 7

Fiscal and Structural Subgroup—Meeting Four Minutes

October 26, 2020

9:00 AM

Virtual Meeting

<https://www.youtube.com/watch?v=DzDUbpAT0f0>

Meeting Attendees:

Dep. Sec. of Public Safety and Homeland Security Jae Davenport, on behalf of Sec. Brian Moran

Asst. Sec of Health and Human Resources Catie Finley, on behalf of Secretary Daniel Carey

Jenn Michelle Pedini (Virginia NORML)

Commissioner Jewel Bronaugh (VDACS)

Ngiste Abebe (Columbia Care)

Dr. David Brown (Department of Health Professions, on behalf of Caroline Juran)

Kristen Collins (Tax Department), on behalf of Commissioner Craig Burns

Mike MacKenzie (VCU Wilder School)

Colby Ferguson (DMV)

Cam Gutshall (DMV)

Travis Hill (ABC)

Charles Green (VDACS)

David Barron (DFS)

Staff:

Deputy Secretary of Agriculture Brad Copenhaver

Jacquelyn Katuin, Policy Advisor to Secretary Moran

Commissioner Bronaugh began the meeting at 1:05 PM.

Minutes from the October 15th meeting were not yet ready for review or approval.

Group Discussion

Commissioner Bronaugh reviewed a document (attached at the end of these minutes) with the group regarding topics and potential consensus recommendations.

Regulatory Structure

Dr. Bronaugh: We will start with regulatory structure—from our discussion we have captured that “Virginia should consider either putting its cannabis regulatory structure under one agency or an umbrella agency to cover both adult use and medical marijuana. There has also been discussion about including regulation of industrial hemp and/or hemp-derived products intended for human consumption under this agency”

Mr. Green: We did some research looking around the country, and as far as the cultivation of the crop goes, that is handled by either USDA or the state in every state. As far as the products

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intended for human consumption, that seemed to be handled by a food inspection entity. That is not an endorsement of how we need to do it, but is just a lay of the land.

Dr. Bronaugh: In terms of the production and grower side, we have built a lot of trust with the growers and VDACS over the last 5 years. There would likely be some angst among these producers if they are moved to another agency. That does not mean that it would not work, but that is just a consideration.

Mx. Pedini: While a lot of work has been done to develop Virginia's program and bring us into USDA compliance, there is still a lot of concern on the product side—smokable hemp and products included for human consumption. There is no authority for consumer safety over the smokable hemp right now; there could be adulterants. Providing consumer safety is critical. We need to think about how we do this.

Mr. Green: We have a lot of concern as well about those potential adulterants.

Mx. Pedini: There is also a lack of overlap of the regulation of the advertising of these hemp-derived products.

Ms. Abebe: We have a number of regulatory processes in process now, and we need to make sure that anything that is in a waiting period or public comment period now stays on track and on the right timelines.

Dep. Sec. Copenhaver: Something else we need to remember is building in flexibility for whatever regulatory body this ends up in to move as quickly as the industry does.

Industry Structure

Dr. Bronaugh: The notes talk about allowing but not requiring vertical integration. The legal and regulatory subgroup agreed.

Dep. Sec. Copenhaver: We have discussed this a lot. A good point that came up before is that we already have businesses operating here in our medical program that are vertically integrated.

Licensing Structure

Dr. Bronaugh: We have looked at the structure and the steps of the industry supply chain, from grower to social consumption. We have talked about social equity licenses. We have not discussed setting the number of licenses, but is this something we want to weigh in on? And license fees should not be an insurmountable barrier to entry.

Dep. Sec. Copenhaver: Do we need to include a dealer (such as in the industrial hemp law) license (someone who actually takes possession of the product and moves it through commerce)?

Mx. Pedini: Wholesaler would be an appropriate catch-all.

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Mr. Hill: You will need to spend some time spelling out which activities they can be engaged in. Does holding one of these prohibit doing activities covered in the other? It can get very confusing if you are requiring many different licenses. Or should Virginia create a license that allows many different activities?

Ms. Abebe: The Illinois model allows those who hold a cultivator license to do infusing as well, but you can also get an infuser license too. Also, what is the difference between a license and a permit? For example, if someone is already a licensed caterer, could they get a separate permit to do cannabis hospitality?

Mr. Hill: If you are going to start using those two terms differently, we need to define what a license is and what a permit is.

Ms. Abebe: One difference is that a license is something that is regulated by the state that has a calendar cycle for applications and issuance, and a permit could have a rolling application period and related to something else that they already have a license for. And not all of these need to be made available at the exact same start date in order to have a deliberate expansion.

Dr. Bronaugh: Does ABC have any experience that could inform how we set this up in terms of allowing specific or multiple activities as a part of a license?

Mr. Hill: We actually just led a license consolidation license effort, because over 80 years, we went from 5 licenses to 170 different licenses or combinations. This became very confusing, and we cut our license type numbers in half. We should try to create as few licenses as possible that allow as broad of activity as possible—this would make it much easier for the businesses.

Mx. Pedini: We would probably need to include a vertical option.

Mr. Hill: That would be an approach because then you could see who in the industry is doing that. We also need to think about how we would price all these licenses.

Mx. Pedini: It is a higher cost for the vertical license in the medical program than for when the companies will license their additional retail locations.

Dep. Sec. Copenhaver: This is an area in the report where we can have a robust discussion about what the thought process and considerations should be. We can learn from other agencies, like ABC and the VA Lottery.

Mx. Pedini: We should also include how we would license existing licensees (i.e. the existing medical licensees)—thinking about the time gap between when we legalize the product and when we have a new licensing system set up.

Ms. Abebe: In Illinois, they used license fees from the existing business to fund some of the startup costs. There is an ongoing conversation going on right now about how to cap or not cap licenses. It would be good to have a deliberate process for how to expand the number of licenses. Illinois is having some litigation associated with the first round of licenses, which is common in

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most states as people are learning the process. It is helpful to start out with a bold but modest series of licenses and then do an annual analysis of how things are going. It is easy to release more licenses, but it is much harder to take licenses away. It is easier to connect with capital if you are one of a smaller number of licensees as well.

Mr. Hill: With the start of a market, it probably makes sense to limit the number of licenses at first. Virginia does not limit the number of licenses for alcohol, and we have zoning laws that dictate where businesses can locate. The market also dictates who is successful. If you limit the number of licenses, what you could do long term is create a license that is highly valuable, which can concentrate market power, reduce services to consumers, and create regulatory challenges. We need to frame up how we get off on the right foot but then also allow the market forces and individual communities play a role.

Ms. Abebe: One other point to consider is geography. In Virginia, we have one pharmaceutical processor per health service area. In Illinois, when they did an expansion of licenses, the applicant had to specify where geographically they wanted to locate. The areas were divided up and licenses were proportionally awarded based on population. This was a way to focus the competition pool. This may be a good model for Virginia as well.

Dr. Bronaugh: Also from geography, you can sometimes determine who is lacking in resources as well.

Dr. Brown: We could cap license numbers for certain categories but not for others. For example, we could limit processors and distributors, but not retail, delivery, etc.

Mx. Pedini: Question for Ms. Abebe—in other states are licenses broken down by the size and scale of the operation?

Ms. Abebe: In Illinois, they only released social equity microgrow licenses, but there is a process for expansion. The other thing to consider is if licensees can expand or operate in additional areas.

Mr. Green: In our research, we have found other states have different levels of licenses for growers based on the size of the grow operation. We heard that we need to be careful in how we set that up because in one state, applicants tried to get around the cap on the large size of grows by applying for many licenses in the small size.

Mx. Pedini: We should probably mention that it would be good to offer a “microgrow” licenses and use canopy size as opposed to plant count.

Ms. Abebe: That’s a good point because we could run into issues when using plant count. We should also think about how to create a license for consumers to come see the operation and consume on site as well—like a brewery or winery.

Dr. Bronaugh: We need discuss some about license fees and what that should look like specifically for a social equity license category.

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Mr. Hill: First we need to figure out what license fees go to support. Do they need to be set up so they only support the regulatory program? We could also look at setting up fees across the board and know that taxation will go toward funding these activities. If the social equity license fees are much lower, some within the industry may complain about that.

Ms. Abebe: Thus far, we haven't seen industry members pushing back on the fee differences for social equity licenses. In Illinois, it was \$100,000 for an existing medical licensee to get a license to sell for adult use. The license fees for social equity applicants were \$2,500.

Taxation

Dr. Bronaugh: What we have so far—"Virginia should consider taxation of product at the retail level—this is the most straightforward and easy to collect. Question: Which agency do we want to manage this process—a cannabis agency, tax department, or something else?"

Dep. Sec. Copenhaver: Another wrinkle in this could be that for the time being, this is primarily a cash-based business, which could create additional problems for the state agency who is collecting the taxes.

Ms. Abebe: There are some stories from early states where people were trying to pay large sums in taxes in cash. Moving to the second bullet, Illinois has a higher tax on higher potency products, and this is also similar to Virginia's alcohol model—i.e. higher tax on spirits.

Mr. Hill: Yes there are different tax rates for spirits, malt beverages, and wine.

Ms. Abebe: In the health work group, we talked about using taxes to meet public health goals in this way. But high potency does not necessarily mean higher intoxication—it usually just means more doses. Most states have just focused on retail, collecting a sales tax and a cannabis specific excise tax on top of that. It would be important that whatever system we decide on is simple to implement and works with point of sale systems.

Ms. Collins: We would definitely have concerns with receiving large amounts of cash. When we look at an industry specific tax, we would need to consider both subject matter expertise and the law enforcement capability. Most tax department programs are voluntary compliance. So we would have some concerns about having to collect the tax for those reasons.

Ms. Abebe: For the most part, cannabis operators are able to write checks now and have access to some banking solutions.

Dr. Bronaugh: The last bullet states that "A tax rate should be high enough to cover costs of the program to provide consumers with certainty that products are regulated and safe (e.g. free from adulterants) to consume and to cover any other revenue goals Virginia has—however, the tax rate should not be high enough that it encourages a thriving illicit black market." We need to think about what we would want to cover with these taxes.

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Mr. Hill: In the experience of ABC, generally the easiest thing to do is to collect the most amount of money from the fewest amount of people—so much of ABC’s tax collection happens at the wholesale level. But where you place the tax in the chain does have impacts on its visibility and the ability to pass that tax on.

Mr. MacKenzie: To what degree would local jurisdictions be able to implement their own tax structure?

Dep. Sec. Copenhagen: That’s a great question and will likely come into play in our discussion of local input in general.

Mr. Hill: Yes, that is a great point. And often localities need direct authorization to collect a tax. But we have seen sometimes in the past with alcohol, when times get tight, the legislature sweeps money out of those accounts.

Ms. Abebe: We would already be beholden to any sales tax that exists in the locality. In other states, generally if a state opts out of cannabis, they are no longer eligible to receive any funds generated by the industry.

Dep. Sec. Copenhagen: Jason Powell in the chat box asked, “Would local taxes not depend on the ultimate retailer? If private, would they not get BPOL?” That is probably correct, but there is probably also an additional policy discussion that localities would want to have about this particular product.

Dr. Bronaugh: We need to continue to have discussion about how localities play into this.

Dep. Sec. Copenhagen: JLARC is also getting into this, so we will probably just say that localities need to be at the table for this discussion.

Agency Organization

Dep. Sec. Copenhagen: This will probably be a pretty robust agency structure that covers different facets of regulating this product. This would include licensing and registration staff, auditing and Investigation Staff (law enforcement background), financial Analysts/Financial Processing, Data Analysts, Software provider: Seed to Sale Tracking System, Scientific or laboratory, Internal Support positions – (i.e. Human Resources, FOIA), Areas to address outside of the primary regulator: Tax Revenue Collections, Other Law Enforcement, Liaison Positions such as pesticides, food safety, weights and measures, Dept. of Agriculture. We need to think a lot about the organization structure and try to get it right from the beginning.

Dr. Bronaugh: A lot of that list comes from discussions we have had with several other states.

Dr. Brown: We have done a good job of listing the spectrum of activity necessary. This is likely way beyond what BOP could do, but we would likely have a role in this (such as issuing permits for facilities producing medical grade products).

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Dr. Bronaugh: Charles Green wanted to note that existing agencies have some authority in some of those support roles.

Ms. Abebe: We should also consider a structure to allow for citizen input aside from the standard stuff.

Dr. Bronaugh: We can never forget allowing for that input when we are making decisions.

Dep. Sec. Copenhaver: Another bullet says “Virginia should create regulatory authority for the agency to establish a program and appropriate funding, as opposed to developing the program based on tax revenue and fees. Recognition that up-front funding and established FTEs will be critical to start a program before license fees and tax revenues materialize. Consideration of a Cannabis Cabinet of agencies or Secretariats mandated to come together on a regular basis for updates and address challenges of program start-up to alleviate the potential “red tape” that could be experienced bringing multiple state agencies together working with different regulatory authority. The report should work with staff to develop cost estimates for establishing new agency structure, including relevant timelines.”

Dr. Bronaugh: This is extremely important. Giving the agency the necessary authority and the appropriate funding is key because when we start a new program, the public expects it to roll out smoothly and in a timely manner.

Dep. Sec. Copenhaver: Are there any other topics we need to make sure we include?

Mx. Pedini: It would probably be appropriate that we recommend transparency in the licensing process.

Mr. Hill: Does that include posting and publishing, or how licenses are crafted?

Mx. Pedini: Ultimately it depends on what the process looks like, but when we have awarded highly competitive licenses in an opaque manner in the past, that has created legal problems for the state. We should have transparency on how the license winners are ultimately decided on.

Mr. Hill: Like published criteria and scoring matrices?

Mx. Pedini: Yes, and what the scores were as well. We should also collect data and have regular reporting on monthly sales, number of employees, and other items.

Dep. Sec. Copenhaver: That fits into the broader theme of data collection we have discussed.

Mx. Pedini: There should also be an easy to navigate website as well.

Dep. Sec. Copenhaver: We are open to other thoughts at any time after this meeting and during our Wednesday meeting as well.

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Public Comment

There was no public comment in this meeting.

Commissioner Bronaugh adjourned the meeting at 10:25 AM.

Appendix 8

Legal and Regulatory Subgroup—Meeting One Minutes

August 17, 2020

9:00 AM

Virtual Meeting via WebEx

Meeting Video: <https://www.youtube.com/watch?v=B1OI5Epxoco>

Meeting Attendees:

Secretary Brian Moran

Deputy Secretary Brad Copenhaver, on behalf of Secretary Bettina Ring

Deputy Secretary Heidi Hertz (*taking notes*)

Deputy Secretary Nicky Zamostny

Commissioner Jewel Bronaugh (VDACS)

Nate Green (Virginia Association of Commonwealth's Attorneys)

Kristen Howard (State Crime Commission)

Holli Wood (OAG), on behalf of Mark Herring

Deputy Commissioner Charles Green (VDACS)

Ngiste Abebe (Columbia Care)

David Brown (Department of Health Professions), on behalf of Caroline Juran

Michael Carter (VSU Small Farm Outreach Program and farmer)

Colby Ferguson (DMV), on behalf of Commissioner Richard Holcomb

Linda Jackson (Department of Forensic Science)

Richard Boyd (Virginia State Police)

Joe Mayer (Tax Department), on behalf of Commissioner Craig Burns

Dr. Sam Caughron (Charlottesville Wellness Center Family Practice)

Jenn Michelle Pedini (Virginia NORML)

Deputy Secretary Brad Copenhaver began the meeting at 9:00 AM

Select Subgroup Chair and Vice Chair: Jenn Michelle Pedini (Co-Chair) & Nate Green (Co-Chair)

Roll Call: 12 yes, 0 no

- Unanimous in favor for Co-Chairs

Group Discussion of Potential Policy Questions:

Deputy Secretary Copenhaver reminded the group of its charge: What are the laws and regulations here in VA that would have to change if the General Assembly moves to legalize adult use of Marijuana?

The following is a summary of the discussion during the meeting regarding potential topics and policy questions that the members brought up.

- THC levels- Will we make efforts to control THC levels in marijuana? Should this be regulated? Consider reflecting on guidelines for medical cannabis program.

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- Identify possession limits- Considering types: flower, concentrate, edible, etc. Serving sizes specifically in edibles as it pertains and include limits.
- THC Concentration- Not generally controlling levels in the plant itself, during growing- many variables. Important to consider serving sizes and THC concentration when looking at edibles taking into account consumer safety and address overconsumption issues.
- Packaging and labeling is important- Consider vast array of consumers using the products as well as product labeling and packaging. Consider low-dose consumer experiences/preferences for adult-use markets.
- Social-equity business models- both regulator and structural issues with licensing. Important to have opportunities that are lower capital intensive. Review Illinois model. Consider: vertical integration, guidelines for medical cannabis program, keep licensing fees low, technical assistance being provided
- Licensing models- controlling supply from “outside”, keep product local, seed delivery/interstate, hemp licensing as step to growing, timing of sell related to new policy, consider state sponsored markets to get products to market at a good price, balance small farmers with larger (previous tobacco) farmers. Review how records are impacting employment in the cannabis industry.
- Additional product categories- flower, vapes, culinary products (would there be additional regulations for these products? ABC, VDH, etc?)
- Potency limits- edibles where big concern is, look into potency limits for recreational use other states have used. Review research on toxicity, highway safety, side effects (ex. National Highway Safety).
- Licensing for grow-your-own- personal cultivation of interest and should consider what other states have put into place.
- Seed to sale tracking- system that allows for oversight (ex. Tax), review medical cannabis regulations
- Other considerations from the medical cannabis program including: Security requirements and Consumer safety
- Testing considerations- Unable to tell plant materials that are sold legally vs illegally.
- Toxicologist- agree that there is no level they will testify to determine impairment
- Infrastructure for enforcement- crime implications. Ex. Transportation, cash business (specifically where profits are held), fire, growing for personal use, impact to banks.
- Banking- due to lack of federal reform, banking considerations and solutions to depositing cash and participate in the formal banking economy. This may cause issues for some growers. Current efforts at federal level to address banking challenges.
- Federal tax rate- Review other states’ tax strategies.
- Advertising and marketing- CBD compared to medical marijuana guidelines/regulations. Consider appropriate rules/regulations around advertising (ex. Not advertising to children, avoiding false health claims).
- Ensure that laws going forward are equitable to all.
- Location of where products are sold- Limitations already for medical cannabis providers. Retailers able to communicate where located, when open, etc. Consider location in relationship to other areas (ex. Schools, childcare) and implications of moving away from vertical integration and impacts on location of product for retail.

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- Locality engagement- opt-in, opt-out and implication for sales tax revenue, growers, local government authority, social equity licensing. Review strategies that achieve balance.
- Agency regulatory process- APA or General Assembly direction. Explore what a regulatory body for cannabis looks like. Consider how other states have regulated: VA currently fragmented with BOP regulating medical cannabis program, VDACS oversees industrial hemp, ABC regulating alcohol.
- Implications for growers- Cross pollination of hemp field and marijuana field, various strains of marijuana, issues with honey, environmental impact. Review other states regulations. Indoor cultivation considerations specifically for small growers and impact on their ability to get into the market.
- Tiered licensing structure- creating more economic opportunity. Industrial hemp different processor license. Pathway for existing regulators- benefits for many. Innovative business ideas and overlap with other licensing needs (ex. Culinary uses interacting ABC, VDH, others?)
- Market dynamics- how involved does the state want to be? Ex. Managing supply and demand for product. Recognize economic opportunity and implications for oversaturation. Review other state's plans (ex. Illinois, Oregon).
- Highway safety- DMV concern around driving under the influence, no "defined levels". Can stay within the DUI guidelines.
- Health education- Consumers need to be educated on driving impairment and ways to prevent. Review Massachusetts campaign (educational, youth prevention message).
- Employment- drug testing/screening for employment (also in relationship to medical cannabis program) and best practices for testing. Review other techniques of testing for impairment. Consider CDL programs, federal government employee and contractor roles.
- Employment opportunities for youth- youth on farm as interns, employees and their involvement in the crop. Review alcohol beverage industry models, tobacco industry.
- Definitions- defining "adult use". National standard is 21 years old.
- Address young population-use- Consider ages 18-21 use and distribution.
- Enforcement of regulations- who is regulating underage use, distribution, on-farm work? Budget implications for agencies tasked with enforcement.
- Housing protections- interactions between substance use and evictions.
- Parental rights- include in the discussion as well

Group Discussion of Stakeholder and Subject Matter Expert Engagement:

- Engagement with the public: listening sessions
- Engagement with subject matter experts:
 - American College of Environmental and Occupational Management- resource to talk about legal and medical ramifications
 - Massachusetts Commission
 - Workgroup members invited to share recommendations with Brad
- Each member should start to research and compile information to be shared with Brad.

Finalize Work Plan and Set Next Meeting Date:

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- Proposed next workgroup meeting date: early afternoon? Sept 8, 9th? Be on the lookout for an email from Brad with follow up and further details.

Public Comment:

- **Jasmine Washington**- No Comment
- **Anne Leigh Kerr (Scotts Miracle Grow Company/ Hawthorne Gardening)** - Company has been involved in the 10 states that have legalized adult use. The company would like to help with this moving forward.
- **Michael (Disabled USA Air force Vet) (Previous Director of Virginia Normal (Runs Veterans for Medical Cannabis Access)** – The organization would like to remain engaged in this process and provide input on furthering the legalization of adult marijuana use.
- **Chris Leyen (Senator Ebbin’s Office)** – What is the best way to share constituent information on this at the workgroup level? Would like to be looped in about these meetings.

The meeting was adjourned at 10:57 AM.

Appendix 9

Legal and Regulatory Subgroup—Meeting Two Minutes

September 14, 2020

11:00 AM

Virtual Meeting

<https://www.youtube.com/watch?v=YIq8H9zCU0g>

Meeting Attendees:

Deputy Secretary Brad Copenhaver, on behalf of Secretary Bettina Ring
Deputy Secretary Jae K. Davenport, on behalf of Secretary Brian Moran
Assistant Secretary Catie Finley, on behalf of Secretary Daniel Carey
Charles Green, on behalf of Commissioner Jewel Bronaugh (VDACS)
Nate Green (Virginia Association of Commonwealth's Attorneys)
Kristen Howard (State Crime Commission)
Holli Wood (OAG), on behalf of Mark Herring
Ngiste Abebe (Columbia Care)
Caroline Juran (Board of Pharmacy)
Michael Carter (VSU Small Farm Outreach Program and farmer)
Colby Ferguson (DMV), on behalf of Commissioner Richard Holcomb
Linda Jackson (Department of Forensic Science)
Richard Boyd (Virginia State Police)
Dr. Sam Caughron (Charlottesville Wellness Center Family Practice)
Jenn Michelle Pedini (Virginia NORML)
John Daniel, on behalf of Travis Hill (ABC)

Jenn Michelle Pedini called the meeting to order at 11:15 PM.

Approval of August 19, 2020 Minutes

- Jenn Michelle Pedini called for a vote to approve the minutes of the subgroup's last meeting on August 17, 2020.

Roll Call Vote: 12 yes, 0 no

- Unanimous in favor of approval of minutes

Guest Speaker Sheba Williams, NoLef Turns

Sheba spoke mainly to the expungement of cannabis and marijuana related charges. The current bill that is being considered by the General Assembly does not start until 2024 and requires a long waiting period. The most important things are to decrease criminalization of recordation of use and having a more time-sensitive expungement process. Currently a bill in the General Assembly stipulates that 18-21 year olds who receive marijuana offenses pay a \$150 fine that goes to the Virginia State Police. She suggested a 3-5 year waiting period and keeping cannabis related offenses in juvenile and domestic courts so the record is sealed as a juvenile record at the age of 21. She also recommends reducing this to \$25 like our current decriminalization fine.

She also focused on reentry issues. Many barriers to reentry exist, such as credit, housing, employment—also access to capital when starting a business. Reducing the cost and the time for

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expungement of records is key. She also recommended additional funding for supporting various education and other programs.

Ngiste Abebe: Appreciate you bringing up the point around how background checks can impact folks' ability to have future economic opportunity—especially licensing with DPOR. How does this work, and which trades that DPOR licenses are particularly affected?

Sheba Williams: DPOR has a 20 year lookback period. Even though DOC has certain trade education opportunities, DPOR will let someone get partway through the licensing process, and then notify them that they need to do additional background checking. This process can be traumatizing because it involves two attorneys and a court reporter, and this can take many months to make a final decision. So this is important because if DPOR is looking back 20 years, just having an 8 year expungement period could be a problem. Trades most impacted are entrepreneurship related—it is mostly people of color who are incarcerated, so they are the ones who are denied opportunities for licensing.

Jenn Michelle Pedini: Would like to hear a little more about the urgency of expunging marijuana possession related offenses immediately when we are talking about legalization.

Sheba Williams: Currently we are looking at a process that won't start until 2024 and can be costly. Also, courts are still using very outdated software. This is urgent because people who probably never should have been impacted by this criminalization are being negatively impacted. We are leaving many people out of the conversation if we wait.

Nathan Green: Are you saying that there are licenses from DPOR where a marijuana conviction would preclude you from getting a license?

Sheba Williams: They have denied licenses for real estate, security, and other things that fall under criminal justice services.

Michael Carter: Is DPOR required to explain why they deny the license?

Sheba Williams: It is really up to the discretion of the interviewee, but if you sit in a panel hearing, they will typically tell you the reason.

Michael Carter: Can you challenge or reapply?

Sheba Williams: You can appeal it, but that does not guarantee that it will be approved upon appeal.

Michael Carter: Is there any data on those who have been denied and recidivism?

Sheba Williams: Not sure if that data exists, but overall, Virginia has the lowest recidivism rate in the nation for the first three years after release—23.4%.

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Ngiste Abebe: When you talk about the opportunity from a legal marijuana industry, remember all of the ancillary services and industries as well. Also, any thoughts about how to educate people about their rights and the expungement process as a part of this discussion?

Sheba Williams: There are many private background check companies, and they are not required by law to update their records except once a year. This could be harmful to people, and private background check companies need to be more closely regulated.

Nathan Green: Rather than changing the expungement law, would it be easier to go the route of saying that someone could not be denied a licensure because of a past possession conviction?

Sheba Williams: That could be easier, but the most effective route would be to destroy the record rather than sealing. The current expungement process is very complicated and costly.

Ngiste Abebe: Given the timeline for this, it will likely be necessary to have a regulatory intervention, but we still need to deal with the issues around background checks.

Caroline Juran: Pointed out that for DHP, and she guesses for DPOR as well, that this would need to be a code change and not just regulatory.

Vickie Williams, Decriminalize Virginia

Vickie is a longtime advocate for legalizing adult use of cannabis—emphasis on adult. She has worked for 10-15 years on restoration of rights, and has seen how this criminalization has really negatively impacted lives. Once you have been in the criminal justice system, you often do not have the same job opportunities as others, so you need to be more entrepreneurial. But we are creating many barriers for people to be participants. Once someone completes everything they need to, that record should disappear. The Governor can impact this in an administrative manner, as he can in restoration of rights, but we need to have it in the law as well.

We need to be mindful that African-Americans have been most disproportionately impacted by the criminalization of marijuana. We have made progress but need to do more. Need to legalize safely and smartly. And the money we make in taxes can support outreach to our communities, and this needs to be targeted and with partnerships with groups who can do effective outreach.

She is also a strong proponent of expungement and doing expungement now.

Question from someone in the chat to Vickie: What about right to remedy and reparations for victims of disproportionate violations of fundamental rights by the criminal justice system?

Vickie Williams: African-Americans are 3-1 disproportionately affected by arrests and convictions, even though they have the same smoking rates as white people. We need to put some equity into this—not just a buzz word. Often, people of color may be at the table, but they do not have any power. It needs to be reachable to people of color. One example is the medical program in Virginia where it was out of reach for many people of color financially to get into the industry.

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Jenn Michelle Pedini: Can you share some insights learned from restoration of rights when it comes to educating people about expungement of cannabis records?

Vickie Williams: You need to actually look at where in the community you can have those conversations—partner with groups who are already in the trenches. Work with HBCUs and black Greek organizations, other organizations in the community, and churches as well. Meet us where we are, not where you think we should be.

Brad Copenhaver: Can you talk about other barriers to entry into the industry for disadvantaged communities and how we many address those?

Sheba Williams: Buying into a start-up can be a very high cost for black families, and even if you have the right background, there is a history of black people being denied access to capital for business ventures.

Ngiste Abebe: There are lots of different solutions, such as creating a “social equity” application status and removing requirements to have identified real estate and be paying rent when applying. Washington State has done a good job of working with credit unions and state chartered banks to get lines of credit, and public private partnerships could be good tools too. We also need to make sure that a “social equity” licensing process cannot be exploited by bad actors—protect folks from financial predation.

Nathan Green: One of the explanations for traffic fatalities going up in Colorado but not in Washington could be the density of licenses in the population. Has anyone studied this, and is there a benefit to knowing exactly where the licenses would be?

Ngiste Abebe: Different states have different rules about how far a dispensary can be from another one. The Illinois program gave licenses by geographic area and has regular analysis to see if they are meeting their social equity goals. We need to also consider localities being able to opt in or opt out for localities and for business to be sure that they are going into a community where they would be welcome.

Sam Caughron: Do we want to propose changing the expungement law? Is that part of our mandate?

Jenn Michelle Pedini: After speaking recently with House leadership, she knows they are interested in what our recommendations are.

Vickie Williams: Got disconnected after Brad’s question. People of color already have issues getting access to capital in a normal business arena. So there will need to be some funding to go toward this—grants or loans. Also keep in mind that some prior convictions are not just marijuana, but could be a combination of marijuana and others. And how we can educate folks about what they actually can do when it comes to getting into the cannabis industry.

Michael Carter: This is all part of the foundation for equity moving forward. If you look at what some of the other states have gained from revenues, we have a good opportunity to raise a lot—is

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there a way to use some financing to allow people to get into the business? If we do not deal with this, we cannot have an equitable marijuana legalization. How can we educate people on how criminalization has negatively impacted certain communities over the last 90 years? Is there any evidence that people who have been prescribed opioids and then abused them and been convicted are not able to get access again?

Vickie Williams: There are likely to be some challenges to getting access to them again once you are convicted.

Sheba Williams: Yes, you are restricted. But historically, the alternative to this has been medical cannabis.

Sam Caughron: They may be restricted, but they can still get them in an appropriate situation.

Jenn Michelle Pedini: Can Caroline Juran speak to what the patient disapproval rate for the medical program has been for those who have disclosed prior convictions?

Caroline Juran: It has been zero or close to zero—we feel it is for a medical purpose and has been prescribed by a provider.

Group Discussion

Brad Copenhaver: We are almost to the halfway point in our work plan, and it seems like the scope of legal and regulatory issues is very broad. How are we feeling about our list of topics, and what else do we need to discuss?

Nathan Green: There is a lot of conflicting information out there, but there is data that shows different amounts of traffic fatalities in different states have legalized. We need to explore that more. How have other states handled the driving-while-intoxicated issue?

Jenn Michelle Pedini: Would be good to hear from JLARC—specific provision in their study. There are some additional speakers we could hear from as well. If Virginia is interested in having that data, we would need to start aggregating that data before we legalize.

Brad Copenhaver: Staff will follow up on that with JLARC and DMV.

Ngiste Abebe: We also need to track what kind of data we have—distinction between residual cannabinoids and someone who was actually intoxicated at the time of an accident. It would still be good to hear from Toi Hutchinson from Illinois and Amber Littlejohn from the Minority Cannabis Business Association. The discussion of how this industry is going to be set up relatively quickly is still important to discuss.

Caroline Juran: How will the findings of this group be married up with the other group discussing the medical marijuana work group?

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Brad Copenhaver: We do not have a formal process in mind yet, but keep in mind that the groups share some membership and are being managed from the Governor's office.

Catie Finley: This is a work group driven process, but there are specific things that the legislature has directed the group to do. But there is a recognition from the Governor's office that we need to be thinking about a potential transition from the medical program to a broader adult use program.

Linda Jackson: It would be helpful to hear from a state that has everything housed under one body.

Brad Copenhaver: Mr. Hoffman talked a lot about this from the Massachusetts perspective on Friday. In Virginia, we have a lot of silos that we have built, so we need to be thoughtful about how to set this up.

Caroline Juran: We have not talked about the hemp program yet, and it is part of this discussion as well? Should one entity oversee all three of these?

Brad Copenhaver: In both Massachusetts and Washington, the hemp programs are not under the single cannabis agency. This is something we need to think about.

Charles Green: We cannot think of an example of a state that includes hemp like that.

Michael Carter: It would be good to have someone from Illinois because they have been held up as a model.

Brad Copenhaver: We invited Toi Hutchinson, and she will hopefully be able to join us at some point.

Jenn Michelle: It would be helpful to hear from JLARC, so we do not duplicate work.

Brad Copenhaver: That would be a good concrete next step.

Nathan Green: When is their report due?

Brad Copenhaver: It will be at their mid-November meeting.

Richard Boyd: We were talking about driving under the influence, and recently, one of our local prosecutors had a case of driving under the influence of marijuana that involved the death of a child. Also, the State Police hold the criminal files for the state, so any thing that we may suggest to change that will have a financial impact.

Public Comment:

- Michelle Peace: She is a VCU researcher. She emphasized the importance of tamper evidenced packaging. Also the Board of Pharmacy needs to evaluate the list of solvents they are requiring testing for. She also mentioned the importance of a safe

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- banking program and the ability to test products where consumers have an adverse reaction.
- Lennice Werth: She raised concerns about the cost of entry into the business. Our alcohol regulation model provides us a good starting place—for example allowing homebrews. We need to allow home growing of cannabis.
 - Mary Lynn Mathre: She is an RN, and she reiterated the importance of allowing home growing. The issue of expungement is also very important, and we need to clear those records as soon as possible. Testing and labeling is important.
 - Robbie Berkely: He agreed with all previous speakers. Encouraged the state to allow flower sales. Also encouraged the use of Appellations of Origins and to require stores to keep them on hand in addition to hybrid varieties.
 - Thomas Malone: He runs Arena Group Consulting and has a 1,000 acre hemp farm. He talked about the difference between how hemp and marijuana are grown and how they need to be regulated, but they are still all cannabis sativa and go through roughly the same extraction process. He could see some merit in combining the two industries.
 - Regina Whitset: Executive Director of SAFE, a substance abuse coalition. She encouraged funding for prevention efforts. She also talked about the importance of allowing counties or cities to “opt out” of having cannabis in the community. She encouraged the group to have Dr. Kevin Sabet from Smart Approaches to Marijuana speak in the future.

The meeting was adjourned at 1:05 PM.

Appendix 10

Legal and Regulatory Subgroup—Meeting Three Minutes
October 21, 2020
11:00 AM
Virtual Meeting via Webex
https://www.youtube.com/watch?v=c5aw8Y1Y_T0

Meeting Attendees:

Secretary of Public Safety and Homeland Security Brian Moran
Asst. Secretary of Health and Human Resources Catie Finley, on behalf of Sec. Daniel Carey
Commissioner Jewel Bronaugh (VDACS)
Nate Green (Virginia Association of Commonwealth's Attorneys)
Kristen Howard (State Crime Commission)
Holli Wood (OAG), on behalf of Mark Herring
Ngiste Abebe (Columbia Care)
Annette Kelley (Board of Pharmacy)
Michael Carter, Jr. (VSU Small Farm Outreach Program and farmer)
Colby Ferguson (DMV), on behalf of Commissioner Richard Holcomb
Linda Jackson (Department of Forensic Science)
Richard Boyd (Virginia State Police)
Dr. Sam Caughron (Charlottesville Wellness Center Family Practice)
Jenn Michelle Pedini (Virginia NORML)
John Daniel, on behalf of Travis Hill (ABC)

Staff:

Deputy Secretary of Agriculture and Forestry Brad Copenhaver
Jacquelyn Katuin, Policy Advisor to Secretary Moran

Jenn Michelle Pedini called the meeting to order at 11:00 AM

Approval of August 19, 2020 Minutes

Jenn Michelle Pedini called for a vote to approve the minutes of the subgroup's last meeting on September 14, 2020.

Roll Call Vote: 13 yes, 0 no

Unanimous in favor of approval of minutes

Presentation and General Discussion

Verbal Presentation: George Bishop, Department of Motor Vehicles

Mr. Bishop spoke regarding data on impair driving. He discussed data collection regarding the usage of THC, particularly the crash data that is available. He mentioned that DMV does not collect a lot a data regarding drug use, particularly THC. One reason is that when bloodwork goes to the Department of Forensic Science (for an impaired driving case), if the blood alcohol level (BAC) hits 0.1 or higher, the department does not look any further for drug substances in

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the blood as the BAC exceeds the legal limit and this will hold up well as evidence in a court case.

When it comes to crashes or traffic stops that do not involve a fatality, Virginia has very little data about THC. If a law enforcement officer finds a driver who is believed to be impaired, and an on-scene breathalyzer test comes back as zero, then they can call in a Drug Recognition Expert (DRE), who may give probable cause to conduct a blood screen test. This blood screen can detect THC or other drugs in the blood.

There are twenty-two (22) Drug Recognition Experts in Virginia. The DRE program had been dormant for many years and was restarted about three and a half years ago; and there is currently an effort to make it more robust. Virginia is currently limited by the number of DREs on the force and by the fact that they are not geographically dispersed in an ideal way.

All deceased drivers involved in fatal crashes are tested for alcohol and for drugs. Pre-2018 they were only required to test for the first three drugs found. Post 2018 they test for all drugs. Post 2018, he feels that Virginia has good data on drugs / THC found in deceased drivers involved in fatal crashes. However, this may be an incomplete picture as Virginia does not have the statues to mandate testing of non-deceased drivers involved in fatal crashes. Many states do require drug testing for non-deceased drivers involved in fatal crashes.

In 2018, in fatal crashes, 94 deceased drivers tested positive for some level THC. That year Virginia had over 800 traffic fatalities. One third of these were alcohol related. In 2019, 90 deceased drivers tested positive for some level THC; and so far in 2020 the number is 64 (as of October 1).

A National Governors' Association (NGA) group has been meeting to discuss the issue. We have learned that in Colorado, a certain amount of funding from marijuana revenues have been used to beef up data collection and that state's DRE program. Virginia could look to do the same and could also look at the statues regarding non-deceased drivers involved in traffic fatalities.

Secretary Moran asked about data available regarding driving under the influence of drugs in general. George Bishop offered that DMV has data related to convictions but not related to citations.

Linda Jackson reiterated that DFS has testing procedures in place that if the BAC is found to be 0.1 or higher, then they don't test further for the presence of other drugs. If they do move on and test for other drugs, then a panel test is used. She also mentioned that because drugs are metabolized differently than alcohol, there is not as good information on set limits that would prove someone to be impaired. Drugs act differently on different people. If a prosecution is to be successful against someone based on drugged driving, the ability for an expert to testify regarding impairment based on behavior is important, rather than relying solely on the concentration data.

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George Bishop pulled up data on DUID (drugged driving) conviction data since 2012. Generally, there are 150-175 convictions per year for DUID. This is compared to 18,000- 27,000 DUI convictions per year during this same period.

Brad Copenhaver asked if there was any type of change seen in the data when Virginia reinstated the DRE program and Mr. Bishop stated that there was an uptick in the drugged driving number in 2018, which was the highest number at 173.

Nate Green asked a question to clarify that in 2018 there were 94 driver fatalities in which THC was found in the driver's blood and that there were only 154 convictions for driving while impaired for drugs in that same year. Mr. Bishop confirmed.

Ngiste Abebe asked about data on polysubstance use for people involved in incidents. Mr. Bishop stated that he could get data for deceased drivers but would hate to speculate.

Jacquelyn Katuin, Policy Advisor to the Secretary of Public Safety and Homeland Security, added that data collection is a big issue and we don't have all the data that we would like to have. It's an issue we are working on with NGA and that Virginia is a little ahead of where other states were when they undertook marijuana legalization.

Secretary Moran provided that we have heard from other states that some have established an amount, or per se limit, for THC and what is considered impairment. He asked for thoughts on this topic.

Linda Jackson stated that from the toxicologists at DSF, there is not a scientifically accepted method for determining impairment based on an established limit. She did note that some localities have done this, regardless. She noted that THC is not metabolized in the same manner as alcohol, with it much easier to predict how alcohol is metabolized in the general population.

Jenn Michelle Pedini noted that in states that have established per se thresholds, that those thresholds were established on the testing capabilities of the state laboratories at the time the laws were passed. Per se limits are not based on any scientific data or agreed upon values.

Linda Jackson noted that our testing detection limit for analyzing THC in blood is lower than the per se limits set in other states and that Virginia should not set a limit based upon our testing capability.

Nathan Green added that if Virginia were to go down the road of using a per se limit, we would essentially be criminalizing driving after consuming marijuana, not necessarily based on impairment. It should be clear that a per se limit does not equate to impairment.

Jenn Michelle Pedini added that THC metabolites can be found in the body up to 30 days post consumption in some people and supported Mr. Green's observation about per se limits for THC in blood.

Linda Jackson noted that per se is based on THC, rather than a THC metabolite.

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Secretary Moran asked about diminishment in THC or metabolites in blood over time.

Ngiste Abebe noted that impairment could be associated with a number of factors, including sleep deprivation and use of over the counter medications. She asked if we have any data on non-drug impairment. Nathan Green stated that he could provide anecdotal information as a prosecutor. He stated that toxicological information and police or expert observational testimony could be used as evidence.

He further went on to discuss that it is currently more difficult to prosecute someone for impaired driving solely for marijuana use than it is to prosecute for impaired driving due to alcohol use. He discussed prosecutors currently get a lot of DUI cases resulting for someone being pulled over for another infraction, such as driving with headlights out. The officer subsequently smells alcohol and a breathalyzer test is initiated. If the breath test shows a BAC in excess of 0.1, then this is a pretty straightforward case. Substituting marijuana for alcohol in this situation, the prosecution does become more difficult because you have to demonstrate impairment.

Ngiste Abebe initiated a discussion about public educational campaigns regarding impaired driving. The discussion involved public education as an important component to preventing impaired driving. There was discussion regarding educating about level of tolerance versus educating against driving while intoxicated. Information was shared about federal money used for public education related to alcohol use and driving, but there is no federal money given for drugged driving education.

Brad Copenhaver moved the discussion to other topics. These topics included:

- Regulatory Structure
- Banking
- Social Equity
- Local Control / Local Input
- Product Issues / Composition
- Product Testing
- Personal Cultivation

Jenn Michelle Pedini expressed her view that creating a state agency specific to cannabis is important to providing regulatory oversight for all cannabis products consumed by humans. Mr. Copenhaver asked for thoughts about creating a new agency or using existing agencies as a starting point. Michael Carter voiced his opinion that a new agency should be created from the ground up; taking pieces from other regulatory agencies and Jenn Michelle agreed. Jewel Bronaugh stated that newly formed structure might help parties work together more effectively. Brad Copenhaver asked about the value of relying upon the expertise in existing agencies and Dr. Bronaugh stated that there is valuable expertise in existing agencies but that we may need to increase the capacity at existing agencies to deal with this new product. Mr. Carter noted the uniqueness for marijuana from a regulatory standpoint. Ngiste Abebe noted that having a regulator with the authority to use a regulatory process that moves quickly enough to support the industry would be important.

Appendix 10

Jason Powell asked a question in the chat box about what entity might be responsible for tax collection in this industry. The current medical marijuana product is not taxed.

Dr. Sam Caughron stated that the structure of the regulator must be well thought out; with that regulator being well funded and with the proper expertise and management skills. It probably needs to be a single agency, without stripping staff from existing agencies.

Brad Copenhaver asked John Daniel from ABC to make a few comments. Mr. Daniel discussed ABS's experience and expertise related to alcohol in regulatory development, law enforcement, tax collection, licensing and all support systems. ABC does have strong background and history with alcohol regulation and oversight. ABC will provide organizational charts for consideration and use as a resource.

Brad Copenhaver discussed the importance of exploring avenues to allow for banking options. Jenn Michelle Pedini noted that she had information from other states to share as resource material.

The group discussed social and economic equity including access to capital, how to handle criminal records, restoration of rights, and a regulatory scheme that affects barriers to entry. Jenn Michelle Pedini mentioned that it is critical to break social justice into two parts: First, undoing historic harms of criminalization and providing expungement
Second, industry structure and economic opportunity

Ngiste Abebe also discussed community reinvestment funds and the timeliness for an expungement process. Virginia is not a state that has true expungement yet, related to marijuana crimes. Mr. Carter mentioned making a social equity program and community reinvestment.

The group discussed the expungement process in Virginia. It was noted that Virginia is still a state that does not have true expungement for previous marijuana crimes. Catie Finley noted monitoring equity and access with a disparity report, similar to Illinois, and using this as a tool to make adjustments.

Jenn Michelle Pedini mentioned possibility of looking at the Crime Commission report regarding expungement. Michael Carter added the possibly of making a social equity program and community re-investment funded from specific portion of revenues generated. Mr. Carter also mentioned social equity in who the state hires as regulators as well.

The subcommittee disused local input in decision making. Every locality is different and has different goals. Local input may be applied to the location or zoning of businesses. Some states have done an opt-in / opt-out system. Some have local revenue sharing. There was discussion about opt-in / opt-out on alcohol in Virginia.

The group discussed the regulating the composition of product. Issues include the type of products, potency, safety measures, and adulterants. From the consumer safety standpoint for edibles, Jenn Michelle Pedini mentioned serving size and how many milligrams may be

Appendix 10

dispensed in one purchase. She mentioned industry standards currently in use around the country. Ngiste Abebe provided input regarding vape products, potency, and metered dosing. Linda Jackson brought up the issue of tamper resistant or tamper evident packaging. There was discussion about counterfeit vape products and ways to deter illicit product. There was discussion about product labeling. Catie Finley discussed having a mechanism for addressing marketing to children.

Public Comment

Elly Tucker- Thanked the group for taking public comment. Ms. Tucker discussed her experience with anxiety and the effectiveness of medical cannabis for treating this condition. She also thanked the group for discussing the issue of impaired driving as they consider the topic.

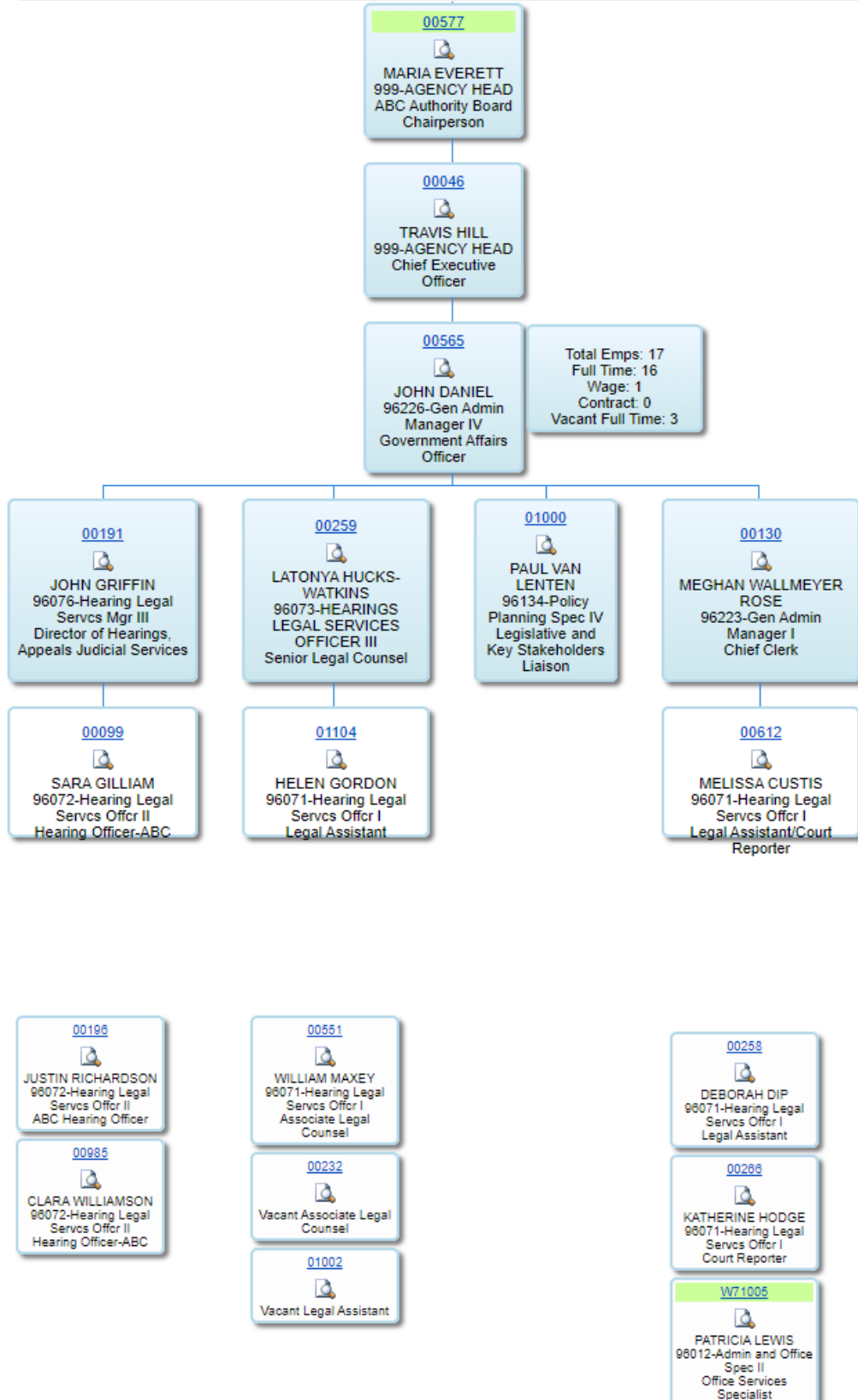
Paul McLean- Has an interest in preventing contaminated product due to health concerns. He also mentioned the problem with counterfeit products and the role of educating the public to look out for counterfeit product. He discussed testing services for personal cultivators.

Meghan Dolecki- Discussed her experience as a medical cannabis patient. Following head trauma, she was prescribed a combination medications that caused her to suffer ill effects from pseudo-dementia. She has successfully used microdosing of cannabis to get off traditional medication and deal with the head trauma related symptoms.

The meeting adjourned at 12:55 PM.

Hierarchy

Search Options (click to expand/collapse)



[01018](#)



KRISTIE MILES
98071-Hearing Legal
Services Officer I
Legal Assistant

[00172](#)



PATRICIA RUMSEY
98071-Hearing Legal
Services Officer I
Hearings Assistant

[00648](#)



DONNA TUTEN
98071-Hearing Legal
Services Officer I
Court Reporter

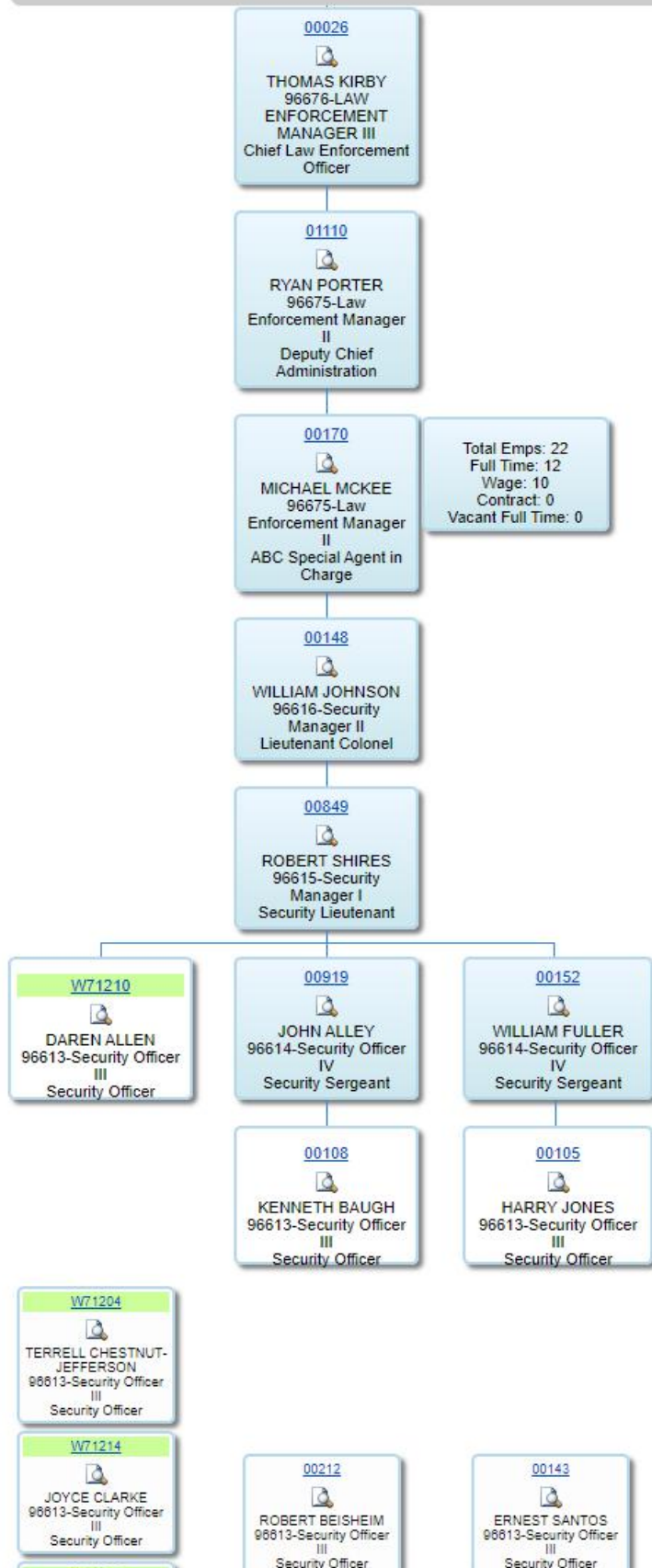
[00887](#)



Vacant Legal Assistant

Hierarchy

Search Options (click to expand/collapse)



[W71215](#)



ROBERT GRANT
96613-Security Officer
III
Security Officer

[W71201](#)



BRANDON JONES
96613-Security Officer
III
Security Officer

[W71205](#)



JOHN KILLIN
96613-Security Officer
III
Security Officer

[W71202](#)



LATONYA MUNDLE
96613-Security Officer
III
Security Officer

[W71203](#)



ALONDA MURRAY
96613-Security Officer
III
Security Officer

[00057](#)



SHERRYL PUNCH
96613-Security Officer
III
Security Officer

[00107](#)



MARY RIDLEY-
TUCKER
96614-Security Officer
IV
Security Sergeant

[W71206](#)



ALLEN ROADS
96613-Security Officer
III
Security Officer

[W71220](#)




PAUL SPANGLER
96613-Security Officer
III
Security Officer

[00852](#)



ANGELA STILL
96613-Security Officer
III
Security Officer

00026

THOMAS KIRBY
96676-LAW
ENFORCEMENT
MANAGER III
Chief Law
Enforcement Officer


00164

MARC HAALMAN
96675-Law
Enforcement Manager
II
ABC Special Agent in
Charge

Total Emps: 10
Full Time: 8
Wage: 2
Contract: 0
Vacant Full Time: 8

00452

STEPHAN BROWN
96674-Law
Enforcement
Manager I
ABC Assist Spec
Agent in Charge


W80606

ORLANDO CARABALLO
96013-Admin and Office Spec III
License Technician Senior

00087

JUDITH CARMEN
96673-Law
Enforcement Officer III
Special Agent 2

00915

JOHN CRAFT
96673-Law
Enforcement Officer III
Senior Special Agent

W80607

DALLAS GASKILL
96013-Admin and Office
Spec III
License Technician
Senior

00272


DENISE HIRES
96013-Admin and Office
Spec III
Program Support
Technician Sr

00497

ROY O'CONNELL
96673-Law
Enforcement Officer III
Senior Special Agent

00098

JONATHAN PINE
96673-Law
Enforcement Officer III
Senior Special Agent

00114

CARL WILLIAMS
96673-Law
Enforcement Officer III

Senior Special Agent

[00035](#)



Vacant Senior Special Agent

[00102](#)



Vacant Compliance Auditor Senior

[00103](#)



Vacant Compliance Auditor Senior

[00133](#)



Vacant Senior Special Agent

[00136](#)



Vacant Senior Special Agent/Compliance

[00465](#)



Vacant Senior Special Agent

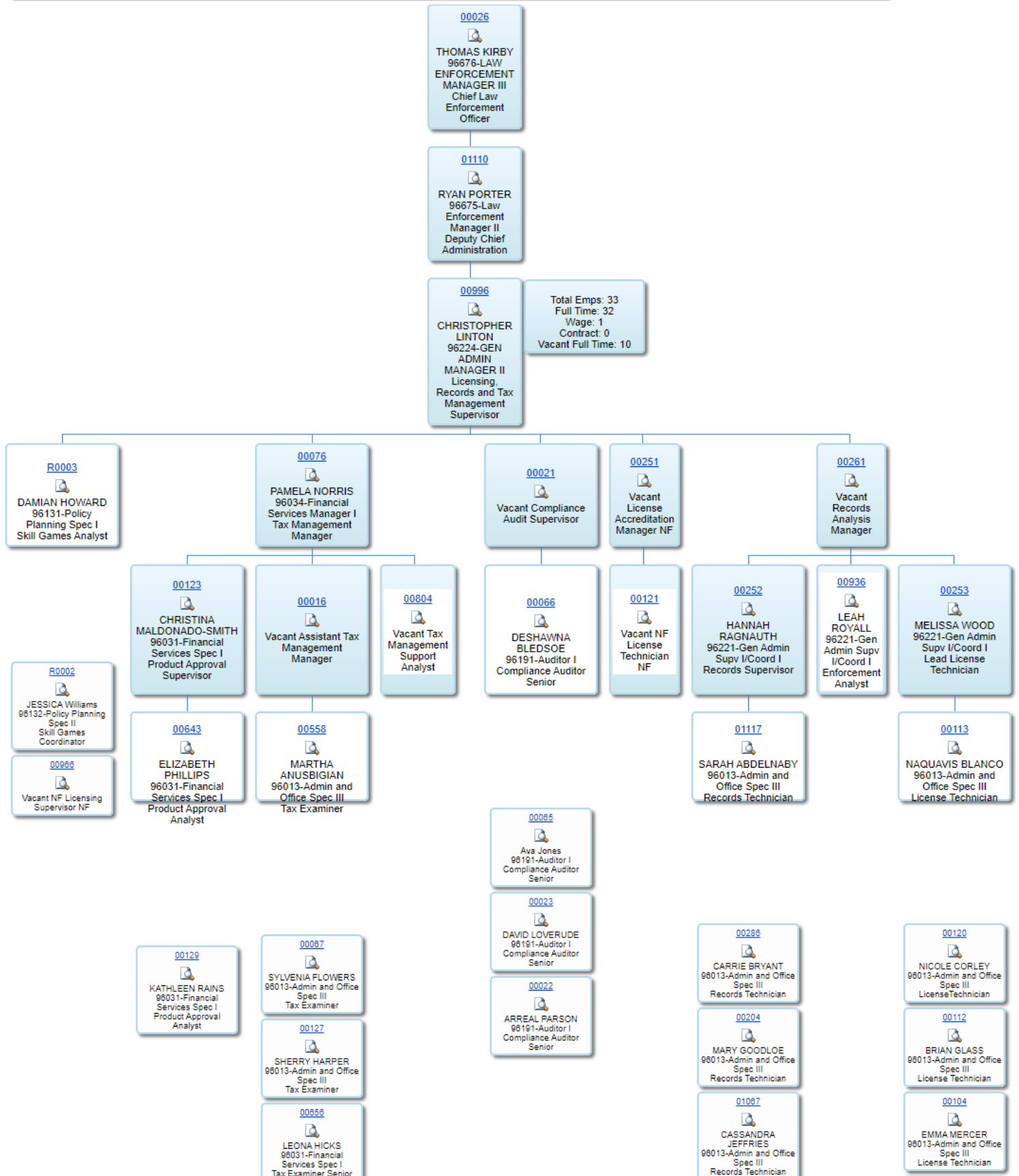
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Vacant Senior Special Agent

Hierarchy


Search Options (click to expand/collapse)



[00089](#)

ANDREA SAUNDERS
98013-Admin and Office
Spec III
Tax Examiner

[43705](#)

Danelle JONES
98013-Admin and Office
Spec III
Records Technician

[WB1333](#)

BEGNIS MUNOZ-
ALVAREZ
98013-Admin and Office
Spec III
Administrative
Technician

[00116](#)

SIERRA KELLY
98013-Admin and Office
Spec III
Records Technician

[01053](#)

JOURBART RAMOS
98013-Admin and Office
Spec III
License Technician

[01084](#)


ANNE MAYER
98013-Admin and Office
Spec III
Records Technician

[01083](#)

YVONKA WEAVER
98013-Admin and Office
Spec III
License Technician

[01006](#)

Vacant Records
Technician

[00032](#)

Vacant License
Technician

[01052](#)

Vacant Records
Technician

Hierarchy

▸ Search Options (click to expand/collapse)

[00026](#)

THOMAS KIRBY
96676-LAW
ENFORCEMENT
MANAGER III
Chief Law Enforcement
Officer

[01110](#)


RYAN PORTER
96675-Law
Enforcement Manager
II
Deputy Chief
Administration

[00974](#)

FRANCIS MONAHAN
96675-Law
Enforcement Manager
II
ABC Special Agent in
Charge

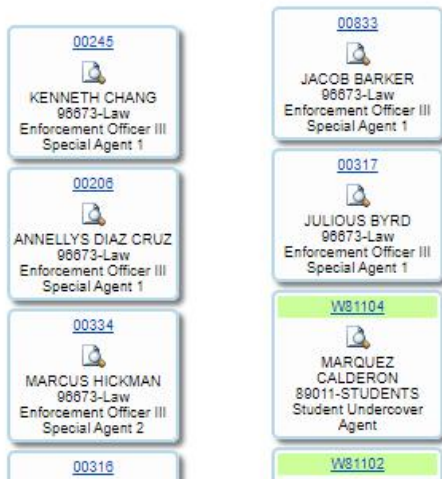
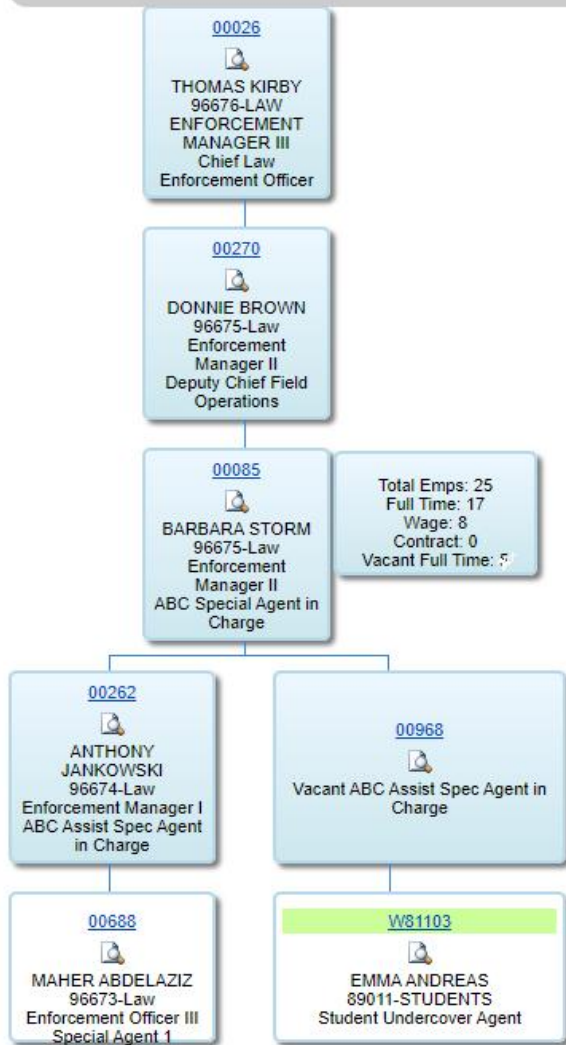
[00235](#)

LINDA MAHOWALD
96213-Prog Admin
Specialist III
Information
Administration
Specialist

[00174](#)

Vacant MBAR Analyst


Hierarchy

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 MICHAEL JACOBS
98673-Law
Enforcement Officer III
Special Agent 2

[00006](#)

 NATHANIEL WHITENACK
98673-Law
Enforcement Officer III
Special Agent 1

[00285](#)

 WILLIAM WILLARD
98673-Law
Enforcement Officer III
Special Agent 2

[00999](#)


 KELVIN WILSON-BEY
98673-Law
Enforcement Officer III
Special Agent 1

[00132](#)

 Vacant Special Agent 2

 EMMA COLE
89011-STUDENTS
Student Undercover
Agent

[00135](#)

 ELAINE HILTON
98013-Admin and Office
Spec III
Administrative
Technician

[00852](#)

 MARY KELLER
98013-Admin and Office
Spec III
Administrative
Technician

[W81132](#)

 AMANDA KNIGHT
98013-Admin and Office
Spec III
Administrative
Technician

[W81116](#)

 OWEN NICHOLS
89011-STUDENTS
Student Undercover
Agent

[W81120](#)

 JEWELL PAYNE
98672-Law
Enforcement Officer II
Special Agent Evidence
Cust

[00388](#)

 SAMANTHA ROGERS
98673-Law
Enforcement Officer III
Special Agent 2


[W80826](#)

 JAMISON TRIMBER
89011-STUDENTS
Student Undercover
Agent

[00062](#)

 DEVIN URBAN
98673-Law
Enforcement Officer III
Special Agent 2

[W81101](#)

 MAXWELL VON KOLNITZ
89011-STUDENTS
Student Undercover
Agent

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 BRANDON WORRELL
98673-Law
Enforcement Officer III
Special Agent 1


[00068](#)

 Vacant Special Agent 2

[00873](#)

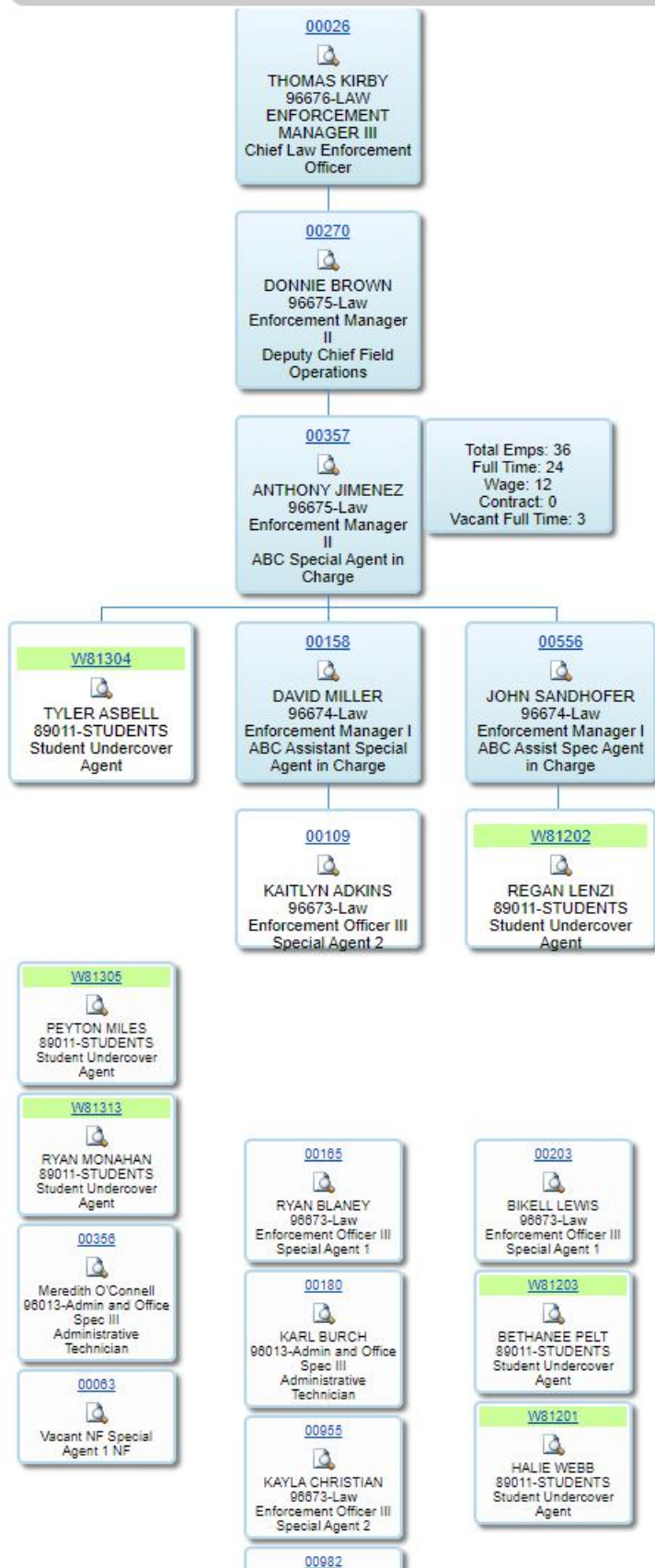
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[00847](#)


 Vacant Special Agent


Hierarchy

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MICHAEL COOPER
98673-Law
Enforcement Officer III
Special Agent 1

[W81301](#)

MADELINE GARBER
89011-STUDENTS
Student Undercover
Agent

[00048](#)

JAMES HACKLER
98673-Law
Enforcement Officer III
Special Agent 1

[00812](#)


JENNIFER HATHAWAY
98673-Law
Enforcement Officer III
Special Agent 2


[00190](#)

JASON HELTON
98673-Law
Enforcement Officer III
Special Agent 2

[00137](#)

KENNETH JOHNSON
98673-Law
Enforcement Officer III
Special Agent 1

[00647](#)

DANNY JOYNER
98673-Law
Enforcement Officer III
Special Agent 1

[W81302](#)

JEFFREY LAWRENCE
89011-STUDENTS
Student Undercover
Agent

[00980](#)

SEAN LONGNECKER
98673-Law
Enforcement Officer III
Special Agent 1

[43704](#)

DAVID MARTEY
98013-Admin and Office
Spec III
Administrative
Technician

[00171](#)


TONYA NORMAN
98013-Admin and Office
Spec III
Administrative
Technician

[00248](#)

LACRESHIA PAGE
98673-Law
Enforcement Officer III
Special Agent 1

[W81307](#)

ASHLEE RATLIFF
89011-STUDENTS
Student Undercover
Agent

[00096](#)


ANDREW RIGGOTT
98673-Law
Enforcement Officer III
Special Agent 1

[W80833](#)



KAREN RONCA
98672-Law
Enforcement Officer II
Evidence Custodian

[W81303](#)



WADE ROSENBAUM
89011-STUDENTS
Student Undercover
Agent

[00222](#)



DANY SAO
98673-Law
Enforcement Officer III
Special Agent 2

[W81315](#)



GRAHAM SERATTE
89011-STUDENTS
Student Undercover
Agent

[00001](#)



KEVIN SMITH
98673-Law
Enforcement Officer III
Special Agent 2

[00083](#)



ASHLEY SPINNER
98673-Law
Enforcement Officer III
Special Agent 1

[00192](#)



ROBERT TAYLOR
98673-Law
Enforcement Officer III
Special Agent 1

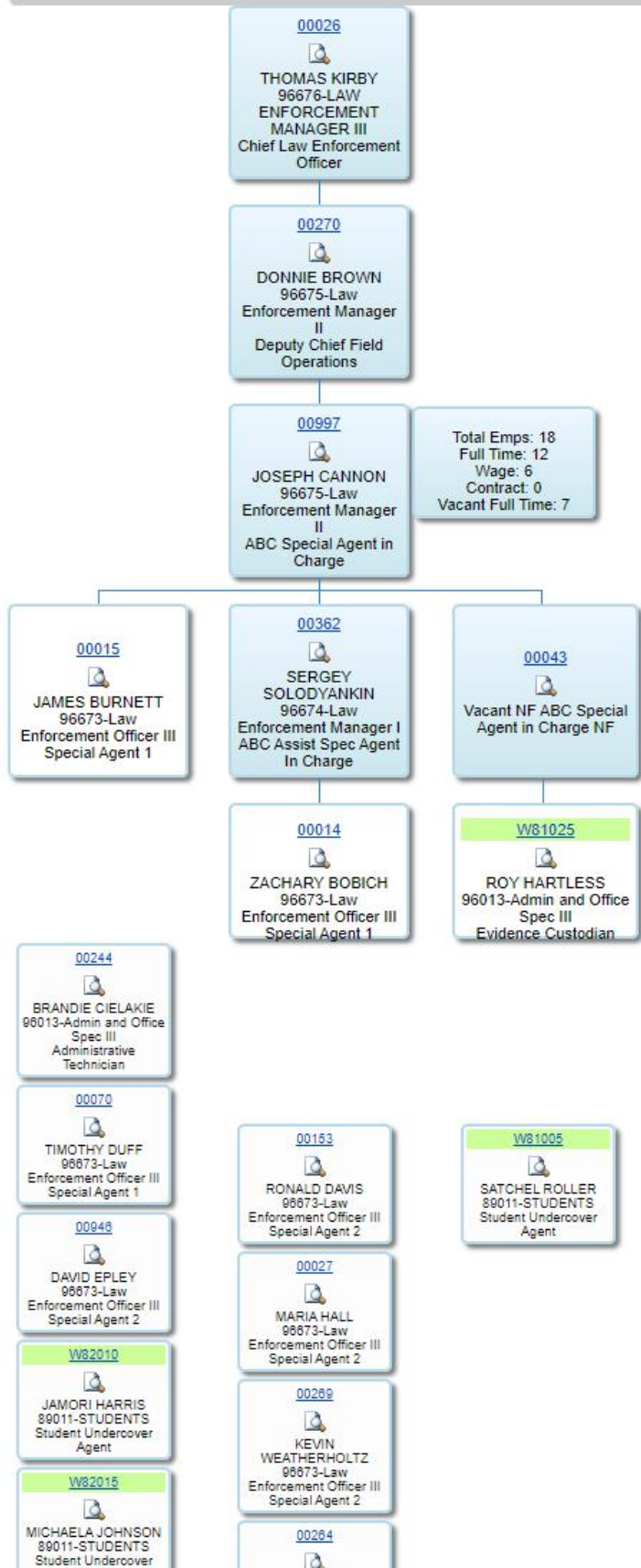
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Vacant Special Agent 1

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Agent

W81023



OWEN MARSHALL
89011-STUDENTS
Student Undercover
Agent

00945



KYLE MEADOR
98673-Law
Enforcement Officer III
Special Agent 1

00984



BARRIE REXRODE
98013-Admin and Office
Spec III
Administrative
Technician

W82011



DALY SEMBROWICH
89011-STUDENTS
Student Undercover
Agent

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Vacant Special Agent 1

00100



Vacant NF Special
Agent 2 NF

00111



Vacant Special Agent 1

00241



Vacant Special Agent

Vacant Special Agent 1

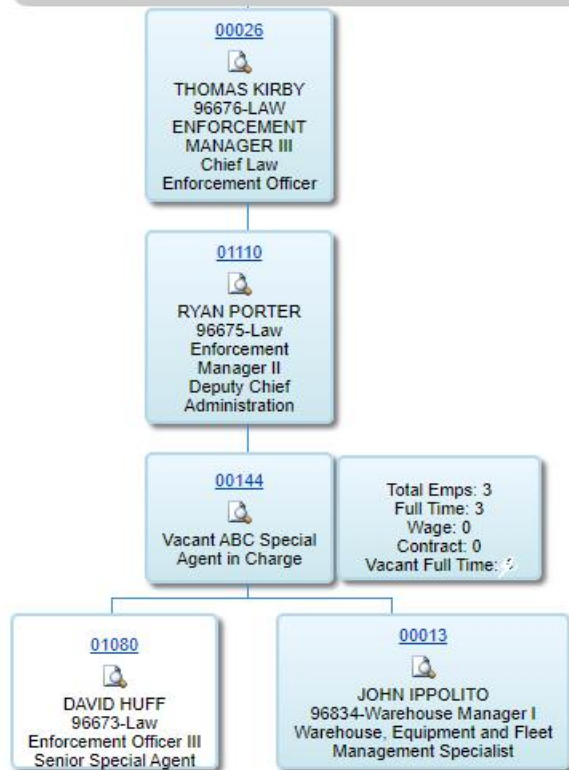
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Vacant NF Special
Agent 1 NF

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Enforcement Officer III
Senior Special Agent

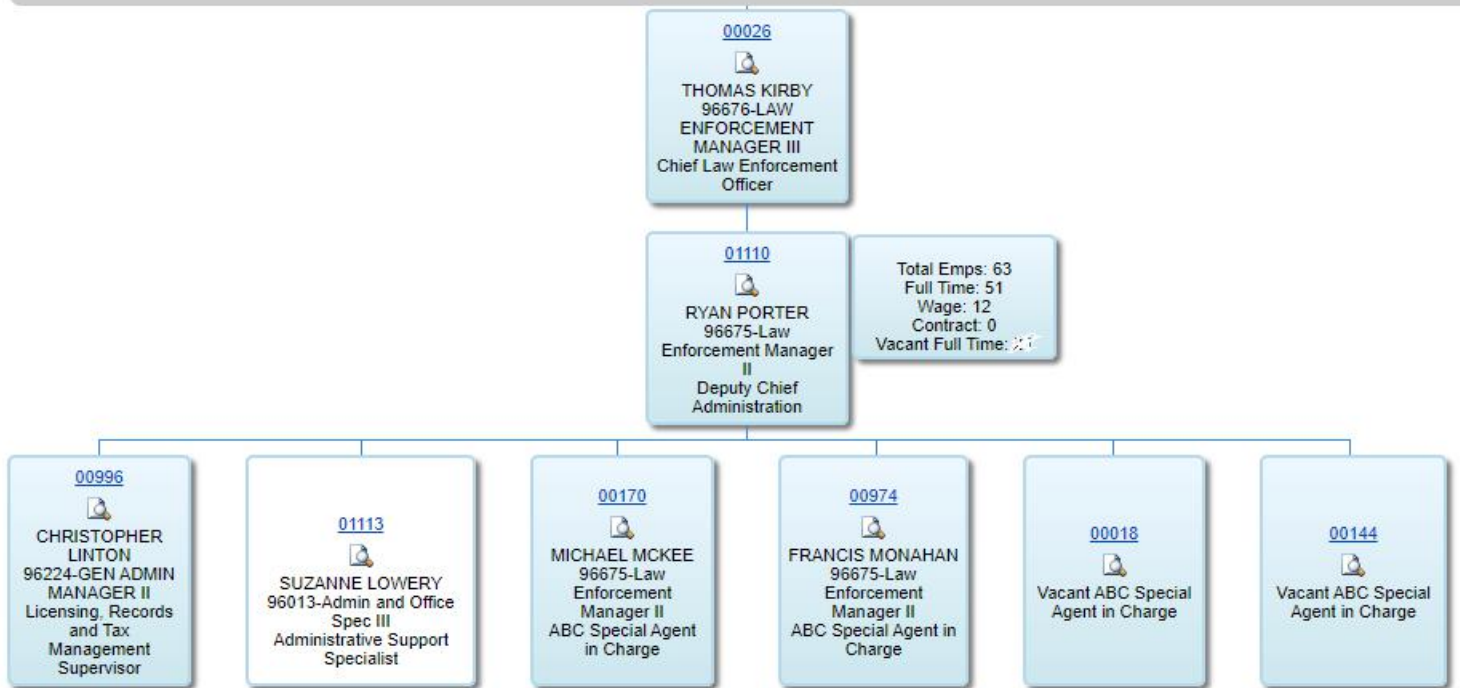
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Support Technician Sr

A2019
Vacant ABC Special
Agent (Non Certified)

A2020
Vacant ABC Special
Agent 1

Hierarchy

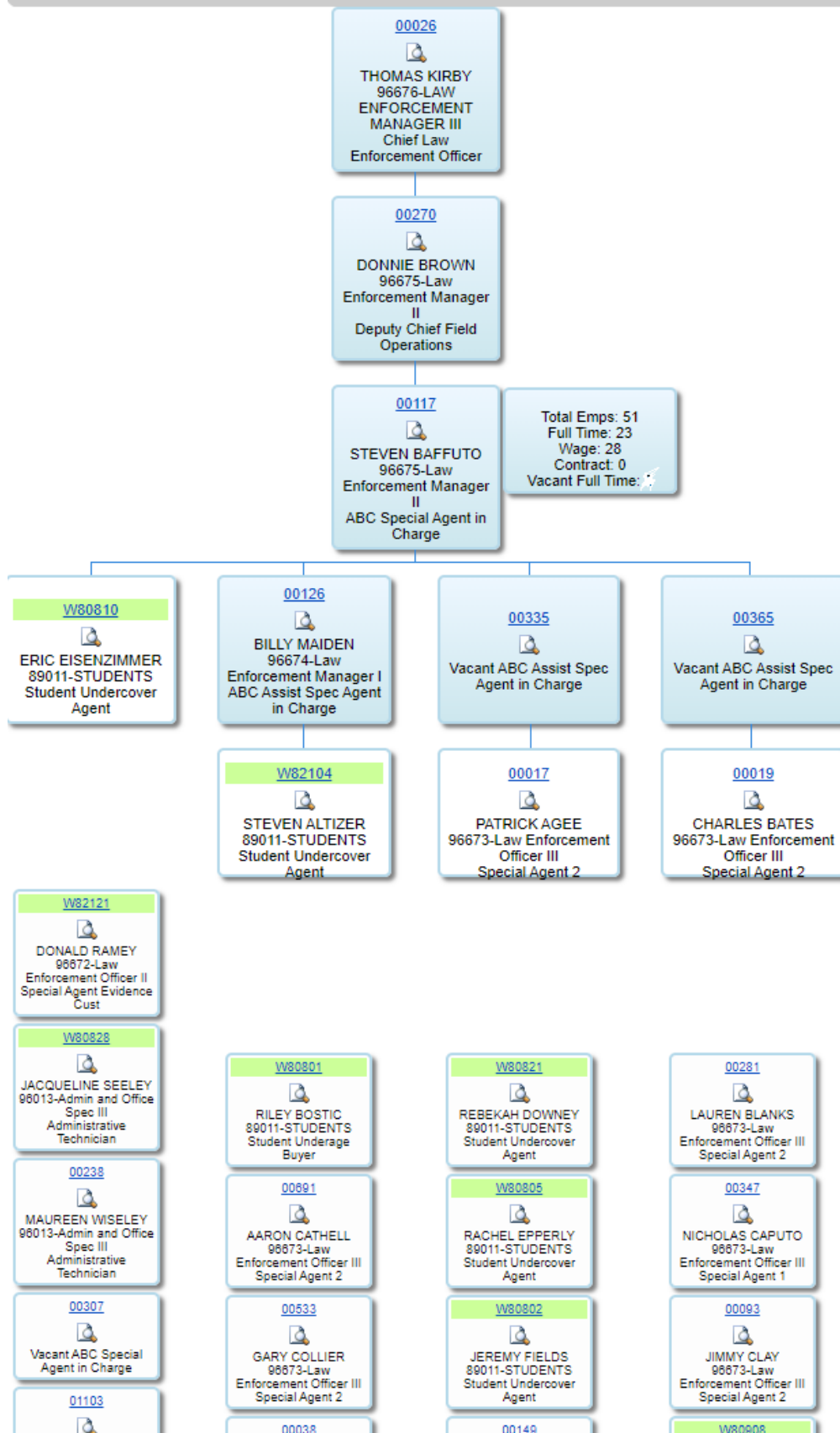
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- W80832
DAVID WOOD
89072-Law
Enforcement Officer II
Investigative Analyst
- A185A
Vacant ABC Special
Agent in Training
- A2015
Vacant ABC Special
Agent in Training
- A2016
Vacant ABC Special
Agent in Training
- A2017
Vacant ABC Special
Agent in Training
- ASW17
Vacant ABC Special
Agent in Training

Hierarchy


Search Options (click to expand/collapse)



Vacant NF
Administrative
Technician NF


DONALD COOK
96673-Law
Enforcement Officer III
Special Agent 2


[00821](#)


TERESA COPLEY
99013-Admin and Office
Spec III
Administrative
Technician


[W82105](#)


SHELBY GRIFFEY
89011-STUDENTS
Student Undercover
Agent

[00188](#)


JOHN GUNTER
96673-Law
Enforcement Officer III
Special Agent 2

[W82107](#)


RAGAN HALE
89011-STUDENTS
Student Undercover
Agent

[W82119](#)


ALYSSA HILLENBERG
89011-STUDENTS
Student Undercover
Agent


[W82112](#)


SADIE HURST
89011-STUDENTS
Student Underage
Buyer

[W82110](#)


SETH LEONARD
89011-STUDENTS
Student Undercover
Agent

[W82106](#)


CAITLYNN MAGGARD
89011-STUDENTS
Student Undercover
Agent


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AUSTIN MCCLURE
96673-Law
Enforcement Officer III
Special Agent 1


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LENA RUTZINSKI
96673-Law
Enforcement Officer III
Special Agent 2


[00300](#)


STEVEN
SENSABAUGH
96673-Law
Enforcement Officer III
Special Agent 1


[W82103](#)


JESSE STAM
89011-STUDENTS
Student Undercover
Agent


[W82102](#)


ADAM GOODMAN
96673-Law
Enforcement Officer III
Special Agent 2


[W80804](#)


BAILEY HAGER
89011-STUDENTS
Student Undercover
Agent


[W80803](#)


SARA NEWMAN
89011-STUDENTS
Student Undercover
Agent


[W80822](#)


COLLEEN PEERY
89011-STUDENTS
Student Undercover
Agent


[W80824](#)


KENDRA PEERY
89011-STUDENTS
Student Undercover
Agent


[00090](#)



TRACY SMITH
96673-Law
Enforcement Officer III
Special Agent 2

[00318](#)



Vacant NF Special
Agent 1 NF

[00687](#)



Vacant Special Agent 2


STEPHEN COMER
89011-STUDENTS
Student Undercover
Agent


[W80801](#)


COURTNEY CONNER
89011-STUDENTS
Student Undercover
Agent


[W80831](#)


SAMANTHA CRAFT
99013-Admin and Office
Spec III
Administrative
Technician


[00267](#)


DEXTER FRANKLIN
96673-Law
Enforcement Officer III
Special Agent 2


[00058](#)


WANDA FRANKLIN
99013-Admin and Office
Spec III
Administrative
Technician


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NATHAN HAEFER
96673-Law
Enforcement Officer III
Special Agent 2


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DAVICE JONES
89011-STUDENTS
Student Undercover
Agent


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JOHN LEFTWICH
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Special Agent Evidence
Cust


[00078](#)


TONYA MASSIE
96673-Law
Enforcement Officer III
Special Agent 2


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EMMA SMITH
89011-STUDENTS
Student Undercover
Agent


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NICHOLAS TOONE
89011-STUDENTS
Student Undercover
Agent


[00012](#)



ANNA VELVIN
96673-Law
Enforcement Officer III
Special Agent 2

[W80802](#)


GILLIAN WHITE
TROST
89011-STUDENTS
Student Undercover
Agent

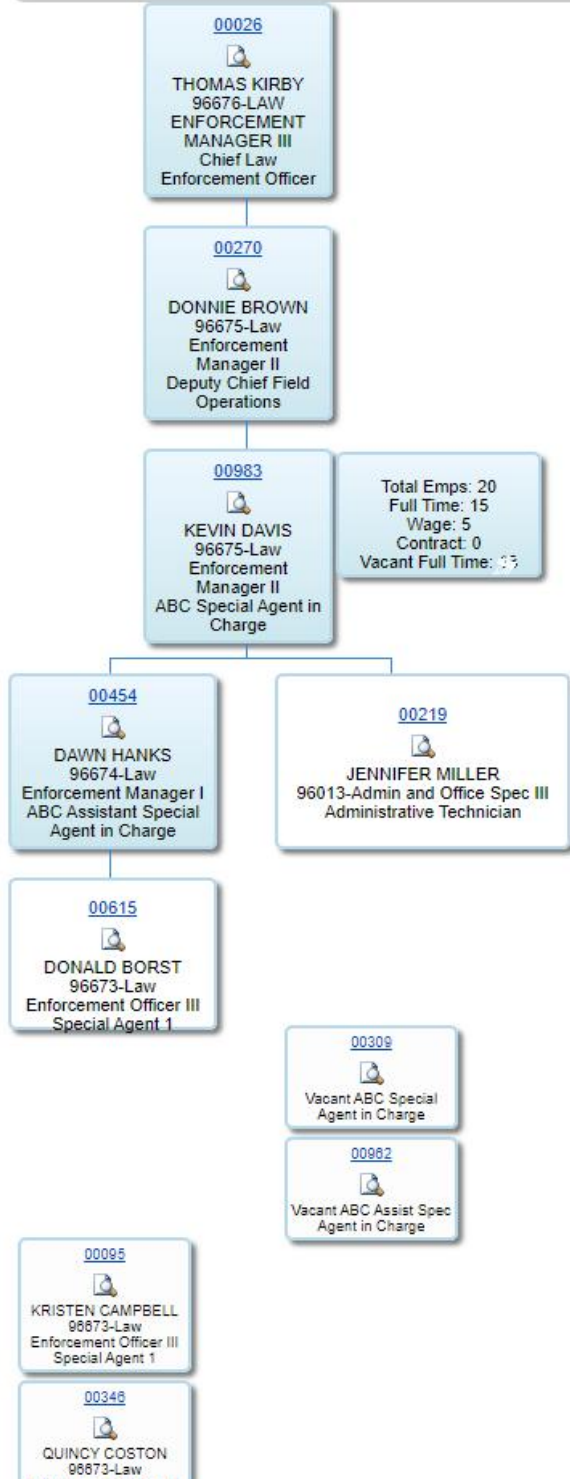

JONATHAN WHITBY
89011-STUDENTS
Student Undercover
Agent

[00209](#)

Vacant Special Agent

[00168](#)

Vacant Special Agent 1

Hierarchy

Search Options (click to expand/collapse)



Enforcement Officer III
Special Agent 2

[W81523](#)



DARIA EDMONDS
89011-STUDENTS
Student Undercover
Agent

[00138](#)



TENIESHA
HOLLENQUEST
96673-Law
Enforcement Officer III
Special Agent 1

[W81522](#)



JOHNNIE HOLMES
89011-STUDENTS
Student Undercover
Agent

[00045](#)



CHARLES JAMES
96673-Law
Enforcement Officer III
Special Agent 1

[00865](#)



CHARLES JOHNSON
96673-Law
Enforcement Officer III
Special Agent 1

[W81402](#)



KENDALL KIRBY
89011-STUDENTS
Student Undercover
Agent

[W81501](#)



DAU-SHAUN MILLER
89011-STUDENTS
Student Undercover
Agent

[00308](#)



TYRELL NICKENS
96673-Law
Enforcement Officer III
Special Agent 1

[00693](#)



BRYAN ORTERY
96673-Law
Enforcement Officer III
Special Agent 1

[00583](#)



JOY PABST
96013-Admin and Office
Spec III
Administrative
Technician

[W80617](#)



DAVID PAYNE
96672-Law
Enforcement Officer II
Special Agent Evidence
Cust

[00217](#)



RODNEY PERKINS
96673-Law
Enforcement Officer III
Special Agent 2

[00092](#)



RAYMOND PURYEAR
96673-Law
Enforcement Officer III

Special Agent 2

[00289](#)



KYLE TAYLOR
98873-Law
Enforcement Officer III
Special Agent 1

[00061](#)



Vacant Administrative
Technician

[00073](#)



Vacant Special Agent 1

[00075](#)



Vacant Special Agent 1

[00115](#)



Vacant Special Agent 2

[00125](#)



Vacant Special Agent 1

[00167](#)



Vacant Special Agent 2

[00195](#)



Vacant Special Agent 1

[00197](#)



Vacant Special Agent 1

Appendix 11

Health Impacts Subgroup—Meeting One Minutes

August 19, 2020

9:00 AM

Virtual Meeting via WebEx

Meeting Video: https://www.youtube.com/watch?v=QDs6qrqIA_g

Meeting Attendees:

Annette Kelley (Board of Pharmacy), on behalf of Caroline Juran

Assistant Secretary Catie Finley, on behalf of Secretary Daniel Carey

Deputy Secretary Brad Copenhaver, on behalf of Secretary Bettina Ring

Heather Martinson (Co-chair for Prevention Council VASCB), on behalf of Jennifer Faison

Assistant Secretary Heidi Hertz (*as a note taker*)

James Hutchings (Department of Forensic Science)

Jenn Michelle Pedini (Virginia NORML)

Katie Crumble (VA ABC), on behalf of Travis Hill

Ngiste Abebe (Columbia Care)

Nour Alamiri (Chair of Community Coalitions of VA)

Dr. Sam Caughron (Charlottesville Wellness Center Family Practice)

Deputy Secretary Brad Copenhaver, serving on behalf of Secretary Bettina Ring, began the meeting at 9:00 AM.

The first order of business was for the group to select leaders of the subgroup.

Subgroup Co-chairs: Samuel Caughron, Nour Alamiri

Roll Call Vote: 8 votes yes, 0 votes no (Unanimous for co-chairs)

Group Discussion and Policy Questions:

Brad reminded the subgroup of the relevant part of the work group's charge:

“What are the health impacts of marijuana use or legalizing adult-use marijuana in VA?”

Physical and Mental health impacts- positive, negative, neutral and from a public health perspective

The following is a summary of the discussion during the meeting regarding potential topics and policy questions that the members brought up.

- Need understanding of biochemistry and physiology of the products (400 or more) all with different properties.
- Identify health issues where marijuana has been useful. Review other states (ex. Colorado, Massachusetts) to get guidance on this.
- Prevention and education for youth- How do we have evidence-based drug education for youth? Preventing use by youth for reasons other than medically prescribed. Review data regarding adult use and impact on use by youth including initiating use. Does increased access with adult-use impact youth use? Prevent high risk youth behavior of all substances. Review risk factors for youth access (ex. Not at cannabis retailer, more likely

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when adult in the home has the products). For both alcohol and tobacco, a lot of research conducted on youth prevention. Previous reports on substance use by youth- VFHY, Commission on Youth.

- Educate parents- how to store products in the home, child-proof packaging, 20% of youth using alcohol is getting it from an adult who has purchased it for them.
- Resources needed for community, school, and law enforcement programming
- Impact on colleges and universities- academic performance, health services, community impact, law enforcement
- Education, prevention around combined use of marijuana and other products (ex. Prescribed drugs, alcohol, etc) - Review previous information specifically for seniors in combined use of medications and cannabis products.
- Reducing criminalization of use for specific populations- Education to state agencies, drug court, others. Opioid use reduction with adult use legalization.
- Addiction- Review, discuss cannabis use disorder (research indicates 12%)
- Regulating advertising- prohibiting advertising to children
- Consider prevention and education with respect to impairment (ex. Similar to drunk driving prevention education) to stop potential consequences.
- Focus on evidence-based data on presence of health effects. Review research done around the world.
- Cannabis has been highly studied. Emerging clinical data- https://norml.org/wp-content/uploads/pdf_files/NORML_Clinical_Applications_for_Cannabis_and_Cannabinoids.pdf
- Additional education needs- Law enforcement. Employers including reviewing workplace policies, employee screening, workplace safety.
- Impairment- Data points to marijuana does not have the same types of effects as alcohol. American College of Occupational and Environmental medicine has looked into this. Review marijuana taskforce report- themarijuanareport.org.
- Impaired driving- research is dated and may continue to be minimal going forward. Studies on the impact on cannabis use and highway safety, JLARC study will look at National Highway Traffic Safety Administration research findings
- Testing- Review tools to determine impairment (ex. Alert meter) that have been used by law enforcement and employers.
- Resource links- Smart Approaches to Marijuana-<https://learnaboutsam.org/toolkit/>
- Physiology of cannabis- description of metabolites to present to the legislature? This legislature has seen this information since 2015 and are educated on this topic particularly around medical cannabis
- Impacts of surrounding states and federal law- interstate transport, allowable products in one state vs another
- Mental health- Review impact of cannabis use on brain and mental health, risk for depression anxiety, suicide, psychotic episodes. How will this impact individuals served by DBHDS, (ex. Increase need for services)? Review use of products to treat PTSD?
- Current VA status- Cannabis is currently sold in VA but is untaxed, untracked, unregulated

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- Defining adult use age- 21 years. Selected based on alcohol. Prevention strategies during brain development years 21 – 25 years
- Criminalizing use- impact on youth use, currently in VA juvenile cannabis possession is considered delinquency
- Social impact- Need to consider access and availability of products
- Synthetics- lost popularity in VA, products not allowed in VA
- Role of legalization compared to current status in VA- how do we increase safety through evidence-based approach? “behind the counter” vs “on the streets”. Role of education to prevent new users. Review/list health issues and impact of cannabis use. Review/list negative health impacts, issues, and complications of marijuana use.
- Specific populations- Fastest growing segment of users are seniors. Impacts of use during pregnancy and fetal development (DSS “Handle with Care”). Review studies- Surgeon General report, HHS advisory.
- Strategies to educate consumers- Importance of product labeling, dosage, instructions for use
- Consumer safety standards for medical cannabis- VA has one of the most stringent guidelines/regulations for medical cannabis program including 3rd party testing, would like these carried over to adult-use
- Legally available products- listing legal pharmaceutical products
- Public health impacts of prohibition- recognizing previous/current violence, illegal markets, etc. Review strategies for equitable legalization and reinvestment in communities with disproportionate impact under current prohibition in place in VA. Impact to communities of color. Law enforcement role regulating use and distribution. Police reform related to adult use cannabis. Marcus Alerts as part of response efforts.
- Terminology- prevention avoids use of “medical marijuana”. “medical cannabis” is a commonly used term. In VA “medical cannabis” or “cannabis oil” used. “Marijuana” referred to in criminal code.

Group Discussion of Stakeholder and Subject Matter Expert Engagement:

- Engaging the public: listening sessions
- Engaging subject matter experts:
- Natalie H, American College of Occupational and Environmental Medicine.
- Dr. Dustin Sulak and Dr. Bonni Goldstein, clinicians
- Other states perspectives on health impacts- DBHDS, Secretary Moran
- Collegiate recovery programs- VCU Rams in Recovery
- Marcus Alert- crisis recovery models
- OAG Cannabis Summit video recordings- <https://livestream.com/agalliance/vcs/videos/199786741>
- Substance Use Services Council
- Physicians from Massachusetts and Rhode Island
- Doctors for Cannabis Regulation, Clinician and Public Health perspective
- Smart Approaches to Marijuana (SAM) <https://learnaboutsam.org/>
- Need balanced approach to presentations, sharing both “pros” and “cons” recognizing current VA baseline

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- Potential topics: substance use/abuse (DBHDS as a resource), strategies from other states, clinician perspective

Brad Copenhaver: Told the group to look out for an email with more information about setting the next meeting date. We are going to try to avoid meeting during the Special Session if possible.

Public Comment:

- One person was registered for public comment but not on the meeting call.
- Chris Leyen - Office of Senator Adam Ebbin (1.) Emphasis on succinct presentation of findings between status quo and a switch to a legal regulated market in regards to health impacts.

The meeting was adjourned at 10:50 AM

Chat Conversations during the meeting:

from Jenn Michelle Pedini to all panelists: 9:15 AM

https://norml.org/wp-content/uploads/pdf_files/NORML_Clinical_Applications_for_Cannabis_and_Cannabinoids.pdf

from Jenn Michelle Pedini to all panelists: 9:17 AM

<https://norml.org/marijuana/fact-sheets/marijuana-regulation-and-teen-use-rates/>

from Heather Martinsen to all panelists: 9:26 AM

Smart Approaches to Marijuana-<https://learnaboutsam.org/toolkit/>

from Heather Martinsen to all panelists: 9:27 AM

oops-<https://learnaboutsam.org/toolkit/>

from Heather Martinsen to all panelists: 9:28 AM

The Marijuana Report - themarijuanareport.org

from Heather Martinsen to all panelists: 9:28 AM

The Rocky Mountain HIDTA Report 2019

From Jenn Michelle Pedini to all panelists: 9:30 AM

<https://norml.org/marijuana/fact-sheets/marijuana-regulation-and-teen-use-rates/>

from Jenn Michelle Pedini to all panelists: 9:38 AM

<https://norml.org/marijuana/fact-sheets/marijuana-exposure-and-cognitive-performance/>

from Jenn Michelle Pedini to all panelists: 9:39 AM

<https://norml.org/marijuana/fact-sheets/societal-impacts-of-cannabis-dispensaries-retailers/>

from Chris Leyen to all panelists: 9:39 AM

Decriminalization Legislation: <https://lis.virginia.gov/cgi-bin/legp604.exe?201+sum+SB2>

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from Jenn Michelle Pedini to all panelists: 10:06 AM

<https://norml.org/marijuana/fact-sheets/maternal-marijuana-use-and-childhood-outcomes/>

from Jenn Michelle Pedini to all panelists: 10:20 AM

Additional white papers highlighting the relevant peer-reviewed science pertaining to the health and societal impacts of cannabis use, enforcement, and regulation are available at

<https://norml.org/marijuana/fact-sheets>

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Health Impacts Subgroup—Meeting Two Minutes

September 14, 2020

9:00 AM

Virtual Meeting via WebEx

<https://www.youtube.com/watch?v=o6RodFEZOyE>

Meeting Attendees:

Annette Kelley (Board of Pharmacy), on behalf of Caroline Juran

Assistant Secretary Catie Finley, on behalf of Secretary Daniel Carey

Heather Martinson (Co-chair for Prevention Council VASCB), on behalf of Jennifer Faison

James Hutchings (Department of Forensic Science)

Jenn Michelle Pedini (Virginia NORML)

Ngiste Abebe (Columbia Care)

Nour Alamiri (Chair of Community Coalitions of VA)

Dr. Sam Caughron (Charlottesville Wellness Center Family Practice)

Michael Carter (VSU and local farmer)

James Thompson (Virginia Center of Addiction Medicine)

James Christmas (River City Integrative Counseling)

Nour Alamiri called the meeting to order at 9:05 AM.

Approval of August 19, 2020 Minutes

- Nour Alamiri called for a vote to approve the minutes of the subgroup's last meeting on August 19, 2020.

Roll Call Vote: 8 yes, 0 no

- Unanimous in favor of approval of minutes

Nancy Haans, Executive Director, Prevention Council of Roanoke

Introduction and Health Impacts of Marijuana, Slides 1-3

- The Prevention Council is a former Drug Free Community Support Grantee (U.S. Office of National Drug Control Policy)
 - Been around for 20 years, non-profit in Roanoke
 - Use strategic prevention framework prevention out of SAMHSA (U.S. Substance Abuse and Mental Health Services Administration)
- Have been looking at the marijuana issue since around 2004
 - Work closely with the Community Coalitions of Virginia (CCOVA) and with Smart Approaches to Marijuana (SAM)
- Their biggest concern is the brain and teenage use. The marijuana of today is different than marijuana 5-7 years ago – the opioid and fentanyl crisis, along with legalization in the western states, has allowed marijuana to look different. We also know so much more about adult and teen brains than we used to. They work closely with several research teams including Virginia Tech Research Institute, a data team at Virginia Tech, a

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researcher at Radford, and Lauren Bickel who has a large body of work around tobacco, opioids, and marijuana.

- See slides 2-3 for their one-pagers on why marijuana is no joke.
- Youth are now using pens and you can vape almost anything. They are also very concerned about edibles.

Current Virginia Data on Marijuana, Slides 4-6

- CCOVA has been looking at this since 2014, when she and a representative from Chesterfield SAFE held a law enforcement summit and met with representatives from Colorado about their experience.
- They started seeing what data localities had on marijuana use and trends, and similar to when started to look at the opioid crisis, they did not have all the data they needed to attack it.
- See slides. Overall, there is either no or insufficient marijuana-related data on poison center calls, poisoning incidents at hospitals and clinics, impaired driving, marijuana use rate, and butane hash oil explosions.
- While they cannot get marijuana use rate by locality, they do have the state-wide Youth Risk Behavior Survey which randomly selects 1,500 students. Some coalitions, especially Drug Free Community Grantees, do have to collect larger data sets.
 - In Roanoke, they work closely with Carilion and the local Virginia Department of Health but neither had the necessary data.
- The lack of data is a concern, especially when looking at the experience of western states who have legalized.

Youth Risk Behavior Survey (YRBS), Slides 8-11

- Last week, they were able to prevent 20 years of survey data on 6th to 12th graders and their parents to the Roanoke County School Board. In Roanoke, they use that date for programming, planning, and interventions.
- See slide 10 for middle school survey trends. Nancy's concern is that peer disapproval and perception of harm are going down since they began collecting this marijuana use data in 2006. Also, even though parental disapproval is in the 90th percentile, many parents are unsure of what to say.
- The high school data looks different (slide 12). They have gotten it down to 3 out of 10 students who have ever used. YRBS leadership - including students, parents, and school administrators – often look at the 30-day past use (16%) to get the landscape and guide future actions and questions.
- A year and a half ago (2020) they started asking specifically about dabbing and dabbing pens 5% of middle schoolers and 20% of high schoolers reported use. (Teens are often very literal so if dabbed, will report they have not smoked marijuana.)
- For high schools, Nancy highlighted that peer disapproval is around 50% and the perceived risk of harm is steady around 50-55%. Anecdotally, youth have easy access to marijuana.

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- In terms of parental disapproval, increasingly parents report that messaging is confusing, especially with what they hear in the media and from legalized states. More messaging and education is needed.

National Partners, Slides 12-15

- They just finished their first year of Partners of Success grant from SAMHSA, which will be looking at alcohol, marijuana, and methamphetamines.
- Another national partner is Clear Alliance in Oregon.
- When perception goes down usage goes up, and that is pretty much the case for any of these states across the country.
- Oregon 11th Grade Data – Slide 13. You can see that 2014-2018 – with legalization being in 2016 – perception of harm for marijuana went down and 30-day use went up.
- Roanoke is collaborating with Oregon and using their TMEC model (slide 14) because it is the first curriculum they have seen that includes marijuana prevention and messaging.
 - Update the curriculum every two years based on the environment.
 - Working closely with the Surgeon General.
- In addition to adapting the TMEC curriculum, they are using the Did You Know Campaign and offering it at 10 sites.
- Prevention programming is key. In Colorado, Washington, and Oregon no prevention programs were in place. We have an opportunity to collect data and start these prevention programs as soon as possible to get good education and messaging for both youth and for families.

Additional Data re: Use Rates, slide 16-18

- YRBS 2019 looked at percentage of co-occurring substance behavior among high school students that reported prescription opioid misuse in the past 30 days, and you can see that see that lifetime marijuana use is closely connected to co-occurring use (slide 16).
- Monitoring the Future Survey from Dr. Nora Volkow (NIDA) shows increasing vaping. It is important to understand that teens can vape anything and pens allow for repeated, hidden use.
- See takeaway from national data on slide 18.
- What they have found in the community is that there is a myth about kids using only one substance when in reality the substances are connected. They can use the data to examine those connections and trends.
- Takeaways: We need to slow down and get as much data as we can and build on what they have been able to collect in the last five years.

Tom Bannard, VCU Program Coordinator for Rams in Recovery (College Recovery Program at VCU)

Biases and Disclosures, Slide 2

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- The Virginia College Collaborative and Jason Kilmer from the University of Washington helped him put together these slides. They are on the front lines of understanding the impacts of legalization, especially on young adults.
- In terms of his background, he is in long-term recovery and hasn't used substances since December of 2006. His recovery has given him a good life and he did not have that prior. He has a felony as a result of distribution of cannabis, which has impacted his ability to find employment. If he had not had substantial resources for his own recovery and his career, he would not be able to have the life he has today.
- He works with students in recovery, including from cannabis use disorder, and can see the devastating impacts. His bias is towards policies to prevent and educate.

Outline & Policy Continuum, Slides 3-4

We have options here and policy occurs on a continuum, and sometimes do not pull levers can to protect public health.

- Prohibition or criminalized has major unintended side effects including mass incarceration and the driving of organized crime that we have seen.
- Decriminalization has advantages in that it does not criminalize the individual; however it doesn't eliminate the black market.
- Medicalization means it has to be a medically recommended product, but that not necessarily eliminate risk and may even increase risk (think opioids).
- Legalizing options:
 - Fully commercialized (e.g. caffeine)
 - Limits – Seen a spectrum of good policies when it comes to tobacco that limit use. In alcohol that is less true; we do have limits but choose not to pull a lot of the public health levers.

Potency, Slides 5-8

- We have seen a dramatic increase in potency over the last 40+ years and we know that in states that have legalized the concentration is higher.
- In Washington State, legalization included funds for research so have ongoing study of young adults and cannabis use that is the source of a lot of the data from these slides (see slide 6).
- Vape, extract, and dab products have high a concentration of THC.
- Higher potency associated with both acute and chronic problems
- Where CBD seems to have a little more evidence pointing to medical benefits, we don't see a high percentage of THC in any of those products. That is a “hard fake” from the marijuana industry, since THC is what sells. if we look at what sells it is THC
- Dose and delivery makes a difference (slide 8). Potential for harm reduction in vaping vs. smoking, though science is still out.

Science is still good that weed is not good for you – see slide 9

Impacts on Collegiate Settings, Slides 10-11

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- If we care about college affordability, we should care about cannabis use. Students are more likely to take breaks as they increase use (slide 10).
- See slide 11 re: short- and long-term negative outcomes for students. Those who are heavy users of marijuana end up with lower earning results 10 years later (UMD research).

Washington State – Good and Bad News, Slides 12-14

- Decreasing perception of risk, which impacts use and is not in line with the science
- Increasing perception of risk for alcohol (may or may not be associated with marijuana)
- For 21-25 year olds: Statistically significant increases in both past-month use and at-least-weekly. It is interesting that weekly use increase is higher than increase in overall prevalence, which may be attributed to the potency of the product or increased availability.

Public Health Policy Strategies, Slides 15-16

- Legalization does not necessitate increased use. There have been public health policies around tobacco use that may be our best window into finding policy that reduces marijuana use.
- See takeaways from reviewing the research on slide 16. The goal is to prevent another Big Tobacco, since those in the prevention and intervention cannot compete the resources of the marijuana industry. He advises starting with more restrictive policies, since it is easier to liberalize policies than to tighten them. Tom's commentary on the slides included:
 - People who can profit from the marijuana industry should not be involved in policy-making decisions. Organizations that are doing advocacy work on behalf of the marijuana industry put out highly inaccurate information that overstates the benefits and understates the harms.
 - Out state monopoly on alcohol sales has been an effective policy strategy in Virginia, so we should replicate what has been done well there.
 - The harms around substance use are likely to outweigh the tax revenues, so any revenue we collect should be put back into prevention, treatment, harm reduction, repairing the harms of past drug policy (war on drugs), and research to measure the efficacy of those policies.

Public Health Wins in Washington State – see slide 17

Virginia Incarceration Rates, slides 18-21

- The positive impacts of reducing overall arrests due to marijuana is very positive from a public health standpoint, especially given the disproportionate incarceration of Virginians and of people of color.

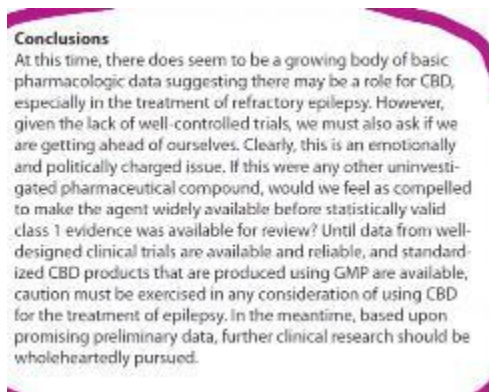
Considerations, Slide 22

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Tom closed with some considerations that need more evidence. He also showed an excerpt from a study re: medicalization, and said we may be getting ahead of ourselves with marijuana policies given the lack of research. He reminded the group of the opioid epidemic, where physician prescribing pushed use and addiction in populations that would not otherwise have tried opioids.

Commentary around considerations:

- Re: whether the illegality of cannabis reduces the effectiveness of prevention messaging, that means are we discrediting ourselves with illegality since young people know that cannabis is less harmful than alcohol by almost every measure.
- Re: evidence of legalization and crime rates, he is suspect of the data showing increases in violent crime from legalization



(Welty, et al., 2014 (p. 251) *GMP = Good Manufacturing Practices*

Dr. Dustin Sulak, Owner and Medical Director, Integr8 Health

Introduction, Slide 2

Dr. Sulak's expertise is as a practitioner and a clinician for patients that do not respond to traditional therapy.

Public Safety Impacts, Slides 5-13

He went through statistics that pointed to the fact that states with liberalized cannabis policies are not seeing negative public health/safety impacts in terms of youth use patterns, traffic safety, crime, and workplace safety. See slides 5-13. Associated commentary included:

- Youth use: We are seeing perception or risk of marijuana decrease. That is usually associated with increased use, but in this case we are seeing decreasing use. He thinks that has to do with education from the government/others and messaging to youth. As mentioned earlier, if we overstate the harms then youth will not believe use and wonder what else we are lying to them about.
- Traffic safety: These studies don't show causality, just an association, but still not a big signal that liberalizing the cannabis laws increased in traffic fatalities, in fact it's the opposite.

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- Again, the impacts have to do with education and policy.
- Occupational injuries: People can use marijuana in a way that causes impairment, but can also substitute it for other medication that are more likely to cause workplace injuries like opioids or benzodiazepines.

Individual Health Impacts, Slides 14-20

His patients and patients more broadly are using cannabis as a substitute for prescription medications, whether their doctors tell them to or not and whether they are in a legalized state or not.

- See slide 14 for substitutions for other prescriptions, including narcotics and opiates.
- See slide 15. When we look at Medicaid reimbursements we can see significant decreases in Medicaid prescribing in several categories (including pain) in states with medical cannabis laws. New Jersey and Washington State saved \$900,000 and \$2 million (respectively) that are potentially related to liberalization of cannabis laws.
- In the past people have focused on the harms of marijuana, but we are now starting to see the benefits.
 - Overall lower death rates show that cannabis may protect individuals experiencing a heart attack or a traumatic brain injury. He is not suggesting all put THC in our system to prevent this occurrence, but showing there could be public health benefits, especially if replacing other substances like tobacco, opioids and alcohol.
 - There is also a lower incidence of obesity, though we can't say that is causal.
- There is also therapeutic value in growing cannabis. You can safely grow a year's supply in your backyard. In its raw state it's pretty much harmless, because heat is needed to activate the THC component.

Conclusion, slide 21

We need an honest, evidence-based look at what responsible use looks like as the most important component of the policy change. Most teens have only used cannabis to get high quickly and secretly. They know what responsible use looks like for alcohol, but not marijuana. See the considerations on slide 21.

We know some people who are using are abusing, and there are ways to address that while maximizing the benefits.

Q&A:

Question from Assistant Secretary Catie Finley: Can you talk about how you distinguish between the benefits of medical and adult use, since medical cannabis is already legal in Virginia?

- Dr. Sulak: There is a huge overall benefit. When Maine allowed physicians to treat anyone with medical cannabis, not just those with certain conditions, many that had not been eligible for medical use had already been treating themselves through the adult use program. Sleep disturbance and insomnia is a good example of that. Some surveys out of

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Colorado showed that 40% were using to help with sleep, which is a medical issue that has a huge impact on chronic disease and health care utilization. The data showing causation is more clear when we look at controlled clinical trials for multiple sclerosis patients that are using pharmaceutical grade cannabis, so we can get clues about what is happening to patients using for things like anxiety, and insomnia regardless of what kind of legalization we are discussing. The education needs to anticipate that.

Question from Tom Bannard: Do you have any relevant disclosures?

- Dr. Sulak replied that he is:
 - Equity owner and Director of Healer Incorporated, which does cannabis education and processing/extraction technology
 - A paid speaker for Spectrum Therapeutics, which is part of Canopy Growth (focused on clinician education)
 - On the Advisory Board of two cannabis science companies: Zeelira Therapeutics and Core Analytics
 - A Board Member in the Society of Cannabis Clinicians (unpaid position)

Question from Dr. Caughran: The current thought is age of 21 for legality. Is there thought on if that is the best age?

- Dr. Sulak supports 21. He has seen a lot of parents that take away their teens' cannabis and say academic performance decreases and anxiety increases. Then they give it back, and things improve again. There is a growing cohort of teens that are using but don't know how, and he steers their ship towards responsible (not risky) use. His experience is that there is a level of responsibility at 21 that is often appropriate. If someone needs to use under 21, they can do it under medical supervision.

Question from Ms. Ngiste Abebe – What is the scale of your practice? She also noted that her takeaways from his and other presentations is the importance of continuing research and making sure that youth use (under 21) should be under doctor supervision with pharmacist assistance.

- Dr. Sulak: Over last 11 years, their three sites across Maine and Mass (about 12 providers) have seen 18,000 patients. Currently, his site in Maine is following 8,000 patients and they are seeing the age demographic shift to elder and youth use, a trend that is continuing as far as the research goes. As far as research and education goes, it should start with a needs assessment to establish people's gaps in knowledge and inform outcomes research.

Dr. Peter Breslin, Board Certified Psychiatrist/Board Certified Addiction Medicine

Dr. Breslin is a formally trained psychiatrist who got additional training in addiction medicine.

Cannabis Use Disorder (CUD), Slides 2-3

What is addiction, dependence, and abuse (how do you differentiate)? The DSM created criteria that is extrapolated to all SUD, so we generalize CUD to alcohol use disorder, cocaine use disorder, etc.

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That means we are in a gray area in terms of diagnosing it, because there is push to talk about the positive medical uses (like Dr. Sulak's presentation) and to consider daily use (similar to Prozac). That positive utility is not something that exists with all drugs, like methamphetamines, which really blurs the boundary as to what addiction is, because in the addiction community they would say that dependence is frequent use. In other words, how do you make the distinction between dependence and medical use?

Of these criteria, two important ones stand out: tolerance (need more in order to achieve the same effect) and whether the person has a hard time cutting down when they want to. Another key factor is any negative repercussions – can look at legal repercussion (e.g. DWI) or, under legalization, whether use is impacting multiple areas of their life e.g. social, work, and responsibilities. If it is negatively affecting their life, regardless of whether the patient look at marijuana as medicinal, it is considered CUD. See the severity definitions on slide 3.

Cannabis Research, Slide 4

Dr. Breslin had a point of contention with Dr. Sulak re: research. There is not a lot of cannabis research, in part because THC has been Schedule 1 substance, so it is difficult to do human studies incorporating THC. Other countries have been able to do more research, but the other factor is that there is a lot of propaganda around CBD (see chat box discussion). CBD is not necessarily FDA approved, minus a couple products that are not what is being provided over-the-counter. That means there are not studies even if people argue that there are. The studies that are out there do not have any weight, they are usually 5 to 10 people and the results are often not discernible. It is not appropriate to extrapolate those results to the whole population and say that CBD has generalizable benefit.

Dr. Sulak is also using correlation and implying causation. If medical cannabis had become legal in Virginia and there was also a 10% decrease in heart attacks, that does not mean THC is causing it. We know how to do peer review studies and that is not what Dr. Sulak presented.

Dr. Bresline agrees with Tom Bannard that there is highly inaccurate information and propaganda around CBD. It is often presented as a panacea and the studies generally do not show it is better than a placebo.

Mental Health Negatives of Cannabis, Slide 5

As a psychiatrist, he sees the negative impacts of cannabis use and those generally occur when a high amount of THC is involved.

- Can cause acute psychosis, but that generally goes away after intoxication ends.
- When look at data, marijuana does not cause schizophrenia, which has been one of the myths. It can cause acute psychosis in those patients, but again that is temporary.
- Re: anxiety – have seen on Dr. Sulak's webpage that he talks about this point - cannabis can help anxiety but it can also worsen it, especially acutely (e.g. paranoia).
- Anecdotally, this affects his practice. This past Friday he had a patient that did well in college and is now in recovery housing due to marijuana. He has schizophrenia, which was not caused by marijuana, but he now has a fixed delusion that if he can keep smoking

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weed and write music he will be a millionaire. He also thinks his recovery house is exploiting him and stealing his money. So it's terrible thing for him to have access to cannabis.

- Dr. Breslin is pro-legalization, but thinks we need to have safeguards and regulations in place and those with certain diagnoses should not have access.

Mental Health Positive of Cannabis, Slide 6

- There is a good amount of data from true studies that it does help with chronic pain, PTSD, and some forms of anxiety.
- He is not trying to “naysay” cannabis, but agrees with the paragraph that Tom Bannard read (above, from Welty et al 2014 study). It doesn't yet demonstrate a significant benefit over placebo and therefore studies are inconclusive.
- There needs to be further research before we jump to conclusions. Creating propaganda that using correlations to imply causation and overstates the benefits is harmful to the legalization process.
- Takeaways: Need to prepare, fund research, provide preventive care, have effective regulations, and keep it from minors (except special medical cases where positives outweigh the negatives).
- Pointed to Department of Veterans Affairs Study entitled “Benefits and Harms of Cannabis in Chronic pain or Post-traumatic Stress Disorder” that reviewed the literature and show that many studies were low-quality or inconclusive.

Q&A

Dr. Sulak – Are you suggesting that we should discriminate access to cannabis based on bipolar disorder or psychosis? At-risk populations already have access to illegal cannabis, couldn't we disconnect them from the underground market and provide them peer support and supervision instead of discriminate against them? Should the state bar them from dispensaries and drive them to the underground market?

- Dr. Breslin: Are you asking whether psychosis and schizophrenia, where there is evidence that marijuana use worsens their prognosis and treatment outcomes, should have access? No one is saying go to the underground – it is about education and the harm reduction model. He does 90% addiction and opioids are much worse than cannabis. As a physician in Virginia he can't encourage it, but can provide them with education. If you can use one substance to get off another, that is fantastic. And yes, needs to be certain diagnoses that have less access to marijuana for their safety.
- Dr. Sulak noted that while there are at-risk population, we do not do that with tobacco and alcohol. For example, we do not restrict tobacco for those with COPD. That would reduce health care utilization tremendously, but gets into civil liberties.

Group Discussion:

Assistant Secretary Finley: What are the next steps in terms of presenters or topics for us to discuss?

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Ms. Nour Alamiri, one of the subgroup co-chairs, facilitated the conversation.

- Dr. Caughron: There is no question that unregulation of the industry has led to a huge problem. How can we use the experience of other states to give guidance in how we word things and positively impact the environment in Virginia.
 - He is concerned about use of marijuana in children and under age. Part of growing up is learning where are limits are, especially between 13 and 17. The regulations must be clear and we must have education.
- Ms. Alamiri agreed. She heard the theme of concentrating on regulations and encouraging safety and what the restrictions are in terms of age and maybe “dosage,” as well as the limits of medical and recreational use.

Ms. Abebe sees 3 clear lines in terms of outlining policy:

- 1) Limit youth use to medical use. She noted that the medical cannabis industry has no interest in marketing to minors.
- 2) Research is necessary. The first presenter showed there is data that is not yet required to report, and that is important in showing any adverse effects of legalization and in tracking changes in youth use rates. The general topline has been downward but we need to continue to understand the products that are being used and update evidence-based education curriculum, perhaps even including state approval process.
- 3) Public health prevention and campaigns are critical, as well as around safe storage and child proof packaging, especially with edibles. There must be education on responsible purchasing and consumption. Education and prevention is a shared concern, as is reducing interactions of law enforcement and additional criminalization, which falls disproportionately on certain communities.
 - a. Remember that legalization does not end systemic racism re: resource distribution and where law enforcement is patrolling, so need to move beyond legalization and ensure that enforcement mechanisms do not continue to be disproportionate.

Mr. Michael Carter – We need to get to the root causes of marijuana use. We need to look at the disproportionate arrest rates of black males and see how those activities increase anxiety and lead to marijuana use.

Revenues should be used to support *all* Virginians, such as mental health supports including for anxiety and depression. Decriminalization doesn't get rid of the underlying anxiety of going through life. Prohibition stemmed from racist policies and that trickled down to enforcement. When 53% of those being arrested for marijuana are African American, that is quite alarming for him and his four sons, even though he has never used marijuana in his life.

Legalization will offset the challenges that we have in terms of interactions with law enforcement, but we need to get down to the root causes or why people are using instead of blaming the substance.

Appendix 12

Ms. Alamari recapped: what are the limits, what is responsible use so that youth can identify that, education should include a public health campaign that includes safe storage. We need to keep in mind the disproportionate effect on black and brown communities.

Dr. James Thompson emphasized that the number one risk that we face with increased access to cannabis is an increase in substance use disorder (SUD) and addiction. That association is pretty well established. There is an 8-9% chance for any adult who uses a substance regularly that they develop the disease of addiction, which is a disease of the brain. With such a prevalent illness and the impact of increased SUD incidence related to cannabis, we focus on that and mitigate the downside of legalization. SUD is going to be the most expensive, most destructive, and most likely to grow if we legalize in Virginia.

Public Comment:

Dr. Jonathan Lee, physician board certified physician in psychiatry. According to national capital poison center, Colorado reported an increase in the number of children brought to the emergency room after swallowing medical marijuana products, including children as young as eight months. A three-year-old was admitted to the Intensive Care Unit. Since Colorado legalized recreational marijuana, last month use ages 12 and older increase 58% and adult use increased by 94% according to some of the data. Traffic deaths in which drivers tested positive increased by 109% and all traffic deaths increased 31%. According to National Institute on Drug Abuse (NIDA), 9-12% of people who use marijuana over a period of time will become addicted, and up to 17% of those who started using in their teens. With increased potency, several have indicated during development can cause long term adverse changes in brain and peer reviewed journal have shown psychosis and other very negative mental health effects.

Lisa Davis, forensic toxicologist, central reporting system for adverse reactions. Need to evaluate and also need a testing process for those products that are associated with those adverse reactions including adulterants. Tamper evident packaging in also important.

Michelle Peace said that policies need to be based on data that is scientifically and statistically robust and a lot of what she heard is neither. California established a research center and are in the process of releasing data re: vehicular crashes and THC and we should look at that. She agreed with adverse reporting system and we should look at states in upper Midwest for guidance. She also agreed with having tamper evident packaging.

Mary Crozier, retired academic in field of addiction, said marijuana is powerful psychoactive drug and is effective for many people but doesn't mean it's wise for them to use. Marijuana youth use in states that have legalized it, because it increased with availability similar to alcohol and guns, and that can lead to decrease in academic achievement and poisonings. We don't know are all the unintended consequences, and as we face budgetary challenges we need a new model and not just copy the same playbook of legalizing, maybe even a hybrid approach without fulling legalizing.

Mary Lynn Mathrey, registered nurse doing addiction consult work and founder of Patients Out of Time and American Cannabis Nurses Association, which puts out accredited content re: the

Appendix 12

medical use of cannabis, which means it makes the scientific standards. IN the majority of cases cannabis is an exit, not a gateway, drug. Opioid death rates have gone down that have legalized cannabis (up to 33%). You can't overdose on a raw plant and all drugs have risk but cannabis has the fewest.

Robbie Berkley, started smoking marijuana in 1974, and he agrees with the woman before him. You already have a lot of people smoking marijuana, regardless of whether you legalize it. Legalization doesn't increase use it just makes more money for the state. The doctors that are saying there will be more negative impacts are not accurate, since people are already using. Also, people want flower and you need to sell flower to make money.

Lennis Worth, Virginians Against Drug Violence, was forced to use cannabis medically and legalization has had negative impact on her life and that cannabis has had a positive impact . We should go after black market and allow home grow and gifts. We would know if cannabis were really dangerous since people have been suing for a while, and criminalization comes down much harder on minorities.

Thomas Malone said this meeting has been great, since this is a complicated issue. It does have negative effects. Cannabis saved his life because he has struggled with depression, and he thinks it is hypocritical that alcohol and opioids are looked at through the same lens. They are not comparable.

Regina Whitsett, Executive Director of SAFE in Chesterfield, recommended several additional speakers for this workgroup: Thomas Gorman, the director of the Rocky Mountain HIDTA Report; Sue Ruesche, National Families in Action; and Kevin Sabet from Smart Approaches to Marijuana.

The meeting was adjourned at 11:12 AM

Chat Conversations during the meeting:

from Michael Krawitz to all panelists: 9:48 AM
that is outdated data from 2014, CBD has been subsequently FDA approved

from Michael Krawitz to all panelists: 9:49 AM
"The FDA has approved only one CBD product, a prescription drug product to treat two rare, severe forms of epilepsy. It is currently illegal to market CBD by adding it to a food or labeling it as a dietary supplement. ... The FDA will continue to update the public as it learns more about CBD. Mar 5, 2020"

from Michael Krawitz to all panelists: 9:50 AM
And it should be noted that THC is a approved FDA drug also

from Michael Krawitz to all panelists: 9:52 AM
DESCRIPTION Dronabinol is a cannabinoid designated chemically as (6aR-trans)-6a,7,8,10a-tetrahydro-6,6,9-trimethyl-3-pentyl-6H-dibenzo[b,d]pyran-1-ol. Dronabinol has the following

Appendix 12

empirical and structural formulas:

https://www.accessdata.fda.gov/drugsatfda_docs/label/2005/018651s021lbl.pdf

from Jenn Michelle Pedini to all panelists: 9:55 AM

If you aren't presenting, please mute.

from Tom Bannard to all panelists: 9:56 AM

Thanks Micheal. This is perhaps a better article:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5964385/pdf/0640111.pdf>

from Tom Bannard to all panelists: 9:59 AM

Its less about CBD or THC for very specific cases, however the rates of Medical Use are far beyond the prevalence of those health conditions

from Tom Bannard to all panelists: 10:13 AM

<https://pubmed.ncbi.nlm.nih.gov/27676176/> A Public Health Framework for Legalized Retail Marijuana

Based on the US Experience: Avoiding a New Tobacco Industry

from Michael Krawitz to all panelists: 10:20 AM

a specially formulated sesame seed oil capsule :-)

from Tom Bannard to all panelists: 10:26 AM

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6948106/> Did marijuana legalization in Washington State reduce racial disparities in adult marijuana arrests?

from Jenn Michelle Pedini to all panelists: 10:35 AM

Please mute if you aren't speaking. It's very difficult to hear speakers when multiple mics are open.

The Health Impact of Marijuana on Youth and Families

"It's More Than Just a Joint"

Nancy Hans, Executive Director
 Prevention Council of Roanoke
 September 14, 2020
<http://roanokeprevention.org/>



MARIJUANA IS NO JOKE

Gateway to Other Drugs

Marijuana acts like a powerful neurotransmitter, and works on the same superfamily of neural receptors as heroin.¹

- Marijuana primes the brain to seek stronger drugs.²
- Marijuana users are more likely than non-users to use heroin and abuse pharmaceutical opioids.¹⁴



Marijuana and the Brain¹

- Causes and exacerbates: **Addiction, Depression, Psychosis, Schizophrenia, Hallucinations**
- Psychotic breaks / Violent acts / Anxiety
- Loss of memory, perception, motor skills
- Mental degeneration

Drugged Driving

Driving tests show marijuana impairs reaction times, divided-attention tasks, lane-position variability (weaving), peripheral vision, cognitive function & coordination.¹

- **1 of every 8 traffic fatalities** in Colorado are marijuana related (+32% increase).¹⁸
- Marijuana driving deaths doubled in one year after legalization in Washington State.¹¹
- For every 1 marijuana-user death, 7 innocents die (pedestrians, bicyclists, passengers, etc.)¹¹
- Combining marijuana with alcohol increases impairment up to 8 times.¹



Teen Use/Users

- Increases dramatically wherever marijuana is legalized.^{14, 17}
- Causes irreversible IQ loss up to 8 points and higher likelihood of Amotivational Syndrome.⁶
- **1 in 6 teens who try marijuana will become addicted.**¹
- Heavy users are less likely to graduate.¹
- **7x increase in suicide attempts.**⁸
- Big Marijuana's goal: teen users today become lifetime consumers.
- "No amount of marijuana is safe for adolescents."¹ - Surgeon General (2019)¹¹
- **Yet, vaping and edibles are a favorite way for youth to use.**

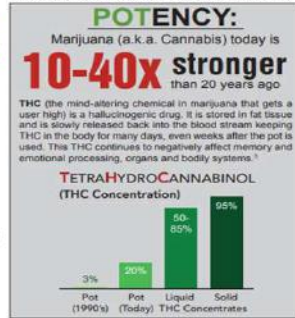


Fetal Risk

- The Surgeon General¹¹ and FDA¹⁶ strongly advise against marijuana use during breastfeeding and pregnancy, because THC gets stored in milkfat and transmitted to the baby.
- THC also crosses the placental and blood/brain barrier, affecting the baby in utero - making it more susceptible to:
 - Lower birth weight
 - Addition later in life
 - Birth defects & cancers
 - Problem solving, attention and learning difficulties later in life.⁴
- Studies show genetic changes in offspring of heavy users.⁴



Think Marijuana is harmless? You don't know POT!



www.AALM.info
 916-708-4111 • 619-990-7480
 Americans Against Legalizing Marijuana
 Email: CarlaD.Lowe@aalm.com for Print-Ready PDF

SOURCES: 1. Bherrens, M. (2019). "Cannabis Effects on Driving." *Self-Care*. 2019. 2. *Dr. David Lewin* and *MDA*. 3. *Arkansas Medical Marijuana for Drug-Addicted Children*. Health Commission of Jones Hill Children's Hospital, Children and Young Adults. 4. *E. Hill, "Prescription"*. 2009. 5. *U.S. CDC*. 6. *U.S. Center for Disease Control*. 2009. 7. *U.S. CDC*. 8. *U.S. Food and Drug Administration*. 2019. 9. *U.S. Food and Drug Administration*. 2019. 10. *U.S. Food and Drug Administration*. 2019. 11. *U.S. Surgeon General*. 2019. 12. *U.S. Surgeon General*. 2019. 13. *U.S. Surgeon General*. 2019. 14. *U.S. Surgeon General*. 2019. 15. *U.S. Surgeon General*. 2019. 16. *U.S. Food and Drug Administration*. 2019. 17. *U.S. Surgeon General*. 2019. 18. *U.S. Surgeon General*. 2019. 19. *U.S. Surgeon General*. 2019. 20. *U.S. Surgeon General*. 2019. 21. *U.S. Surgeon General*. 2019. 22. *U.S. Surgeon General*. 2019. 23. *U.S. Surgeon General*. 2019. 24. *U.S. Surgeon General*. 2019. 25. *U.S. Surgeon General*. 2019. 26. *U.S. Surgeon General*. 2019. 27. *U.S. Surgeon General*. 2019. 28. *U.S. Surgeon General*. 2019. 29. *U.S. Surgeon General*. 2019. 30. *U.S. Surgeon General*. 2019. 31. *U.S. Surgeon General*. 2019. 32. *U.S. Surgeon General*. 2019. 33. *U.S. Surgeon General*. 2019. 34. *U.S. Surgeon General*. 2019. 35. *U.S. Surgeon General*. 2019. 36. *U.S. Surgeon General*. 2019. 37. *U.S. Surgeon General*. 2019. 38. *U.S. Surgeon General*. 2019. 39. *U.S. Surgeon General*. 2019. 40. *U.S. Surgeon General*. 2019. 41. *U.S. Surgeon General*. 2019. 42. *U.S. Surgeon General*. 2019. 43. *U.S. Surgeon General*. 2019. 44. *U.S. Surgeon General*. 2019. 45. *U.S. Surgeon General*. 2019. 46. *U.S. Surgeon General*. 2019. 47. *U.S. Surgeon General*. 2019. 48. *U.S. Surgeon General*. 2019. 49. *U.S. Surgeon General*. 2019. 50. *U.S. Surgeon General*. 2019. 51. *U.S. Surgeon General*. 2019. 52. *U.S. Surgeon General*. 2019. 53. *U.S. Surgeon General*. 2019. 54. *U.S. Surgeon General*. 2019. 55. *U.S. Surgeon General*. 2019. 56. *U.S. Surgeon General*. 2019. 57. *U.S. Surgeon General*. 2019. 58. *U.S. Surgeon General*. 2019. 59. *U.S. Surgeon General*. 2019. 60. *U.S. Surgeon General*. 2019. 61. *U.S. Surgeon General*. 2019. 62. *U.S. Surgeon General*. 2019. 63. *U.S. Surgeon General*. 2019. 64. *U.S. Surgeon General*. 2019. 65. *U.S. Surgeon General*. 2019. 66. *U.S. Surgeon General*. 2019. 67. *U.S. Surgeon General*. 2019. 68. *U.S. Surgeon General*. 2019. 69. *U.S. Surgeon General*. 2019. 70. *U.S. Surgeon General*. 2019. 71. *U.S. Surgeon General*. 2019. 72. *U.S. Surgeon General*. 2019. 73. *U.S. Surgeon General*. 2019. 74. *U.S. Surgeon General*. 2019. 75. *U.S. Surgeon General*. 2019. 76. *U.S. Surgeon General*. 2019. 77. *U.S. Surgeon General*. 2019. 78. *U.S. Surgeon General*. 2019. 79. *U.S. Surgeon General*. 2019. 80. *U.S. Surgeon General*. 2019. 81. *U.S. Surgeon General*. 2019. 82. *U.S. Surgeon General*. 2019. 83. *U.S. Surgeon General*. 2019. 84. *U.S. Surgeon General*. 2019. 85. *U.S. Surgeon General*. 2019. 86. *U.S. Surgeon General*. 2019. 87. *U.S. Surgeon General*. 2019. 88. *U.S. Surgeon General*. 2019. 89. *U.S. Surgeon General*. 2019. 90. *U.S. Surgeon General*. 2019. 91. *U.S. Surgeon General*. 2019. 92. *U.S. Surgeon General*. 2019. 93. *U.S. Surgeon General*. 2019. 94. *U.S. Surgeon General*. 2019. 95. *U.S. Surgeon General*. 2019. 96. *U.S. Surgeon General*. 2019. 97. *U.S. Surgeon General*. 2019. 98. *U.S. Surgeon General*. 2019. 99. *U.S. Surgeon General*. 2019. 100. *U.S. Surgeon General*. 2019.

Heavy marijuana use is linked to downward social class mobility, anti-social behaviors, and relationship conflict.

Less than 1% of all state prisoners are in jail for simple possession.

Physical Health Impacts

- LUNGS:** Smoke from marijuana contains 4-5x the toxins, irritants & carcinogens as tobacco smoke, 20 times more ammonia.¹
- Increases likelihood of **HEART ATTACK**²
- IMMUNE SYSTEM** is weakened³
- NEGATIVELY IMPACTS REPRODUCTIVE SYSTEM**⁴
- DEATH RATE** 4x higher than non-users.⁵

Crime

- 64.3% of men and 66.1% of women inmates are addicted to marijuana, other drugs and/or alcohol.⁶
- Marijuana is strongly linked to violent crime.⁷
- Guns are common at both large and home cultivation (grow) sites.⁸

Butane Hash Oil (BHO)

- Increases THC potency to 50-70%.⁹
- Causes severe "high."¹⁰
- As dangerous to make and consume as meth.¹¹
- Easily causes **explosions and fires** in neighborhoods where cooked.¹²
- AKA dabs, wax, butter, shatter, and solid THC concentrate.

Marijuana is Big Money (but not for the community)

- One plant can bring \$2,000 to \$4,000 annually to a grower/distributor.¹³
- Black Markets still thrive** after legalization.¹⁴
- Tax revenues from pot sales do NOT cover increased crime, health care or addiction services. Revenues are projected to be less than .003% of total CA state tax revenue.¹⁵
- Cost of law enforcement increases, not decreases with legalization.¹⁶
- CA already has 30,000 illegal cultivation sites that supply 60% of marijuana to the US.¹⁷

Is Marijuana Really Medicine? The Federal Food and Drug Administration confirms that whole plant marijuana and THC concentrates are NOT medicine.

- Components may have medicinal value, i.e. CBD (Cannabidiol).¹⁸
- To protect the public, the FDA testing and approval process must be used to determine THC & CBD drug safety, dosing efficacy, side effects, potency, duration, interactions, etc.¹⁹
- Pot shop "bambas" – acting like medical professionals – recommending a psychoactive drug (THC) make medical conditions worse (e.g. PTSD, pediatric seizures, glaucoma and even pain).²⁰
- Any business selling CBD (unapproved by FDA) put users at great risk.²¹

US MEDICAL ORGANIZATIONS OPPOSE MARIJUANA USE²²

American Medical Association • American Cancer Society • American Epilepsy Society
American Academy of Pediatrics • American M.S. Society • National Eye Institute
American Lung Association – and others

US MEDICAL ORGANIZATIONS OPPOSE MARIJUANA USE²³

1. *Journal of California Physicians' Association*, 2013; 2. *Journal of California Physicians' Association*, 2013; 3. *Journal of California Physicians' Association*, 2013; 4. *Journal of California Physicians' Association*, 2013; 5. *Journal of California Physicians' Association*, 2013; 6. *Journal of California Physicians' Association*, 2013; 7. *Journal of California Physicians' Association*, 2013; 8. *Journal of California Physicians' Association*, 2013; 9. *Journal of California Physicians' Association*, 2013; 10. *Journal of California Physicians' Association*, 2013; 11. *Journal of California Physicians' Association*, 2013; 12. *Journal of California Physicians' Association*, 2013; 13. *Journal of California Physicians' Association*, 2013; 14. *Journal of California Physicians' Association*, 2013; 15. *Journal of California Physicians' Association*, 2013; 16. *Journal of California Physicians' Association*, 2013; 17. *Journal of California Physicians' Association*, 2013; 18. *Journal of California Physicians' Association*, 2013; 19. *Journal of California Physicians' Association*, 2013; 20. *Journal of California Physicians' Association*, 2013; 21. *Journal of California Physicians' Association*, 2013; 22. *Journal of California Physicians' Association*, 2013; 23. *Journal of California Physicians' Association*, 2013.

Current Virginia Data on Marijuana

- What is Virginia's Poison Center data on marijuana related calls?**
Unavailable or unable to locate the information
 - 2 other poison control centers for VA:
 - Blue Ridge Poison Center
 - National Capital Poison Center
- Are hospitals and clinics required to report marijuana poisoning incidents to the Poison Center or another health organization? Or is this voluntary?**
Unavailable or unable to locate the information
- What is Virginia's impaired driving data? Is this data separated by substance or lumped in one category?**
 Impairment broken down into:
 - Drinking and driving
 - Drugged driving - no data displayed
 - Distracted driving - no data displayed
 - Drowsy driving - no data displayed

Data from DMV

<https://www.dmv.virginia.gov/safety/#programs/drinking/drinking.asp> for drinking and driving:

- In 2018, 34% of all traffic fatalities were alcohol-related in VA; 278 of 2018's 819 fatalities were alcohol-related
- In 2018, 19,790 were convicted of DUI in VA
- A DUI in VA is estimated to cost btw \$5k and \$20k
- 28 people die in drunk driving crashes every day in the U.S., or one every 51 minutes

4) What is Virginia's marijuana use rate? Has it increased or decreased? Is the data consistently collected or is it sporadic or based on schools opting in/out of the survey?

Unavailable or unable to locate the data

5) What is Virginia's data on butane hash oil explosions?

Unavailable or unable to locate the data

6) What is the school data for substance-related incidents (Alcohol, marijuana, vaping, etc.)?

Some local data and one statewide YRBS that surveys 1500 students from across the state; some school systems do not collect this data

7) What is Virginia's data regarding marijuana-related ED visits?

Unavailable or data not found

8) What is Virginia's data for treatment by substance?

Unavailable or data not found

Data Resources

- Injury deaths by locality (all) -
<https://www.vdh.virginia.gov/data/injury-violence/>
- Crime in Virginia -
https://www.vsp.virginia.gov/downloads/Crime_in_Virginia/Crime%20in%20Virginia%202019.pdf
 - 26, 470 marijuana arrests
 - 8% decrease from 2018
 - 50% were age 24 or younger
- Virginia prosecuted 46,000+ marijuana cases in 2018
<https://www.nbc12.com/2019/12/13/virginia-prosecuted-marijuana-cases/>
 - African Americans make up a fifth of the state population but more than half of all marijuana convictions in 2018
 - Of the 35,000 marijuana cases disposed of in VA last year, 57% resulted in convictions

The Youth Risk Behavior Survey What does it measure?

- Demographics
- Personal Safety
- Violence Related Behaviors (Family, Gang)
- Substance Use (including CORE Measures)
- Depression/Suicide Ideation
- Sexual Behavior
- Body Image
- Exercise
- Bullying Behaviors
- Technology Use
- Family and Community Factors
- Vaping

**The Youth Risk Behavior Survey
What does it mean to RCPS?**

- National CDC instrument since 1991
- Administer biennially in RCPS since 2002 in grades 6th through 12th
- February 2020 latest administration
- Parent online survey that mirrors student questions (2010-2014)
- Leads to prevention, intervention and program planning
- Community outreach
- Parenting Programs offered by the Prevention Council
 - Guiding Choices
 - Social Media
 - other educational programs around risk behaviors



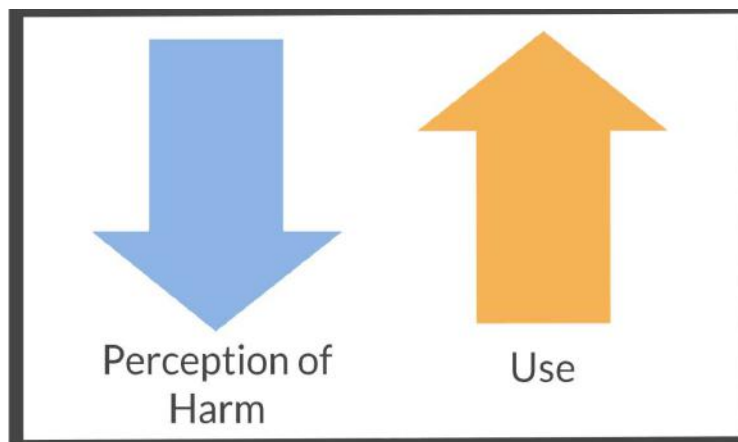
**Marijuana Use Trends
Middle Schools: 2006-2020**

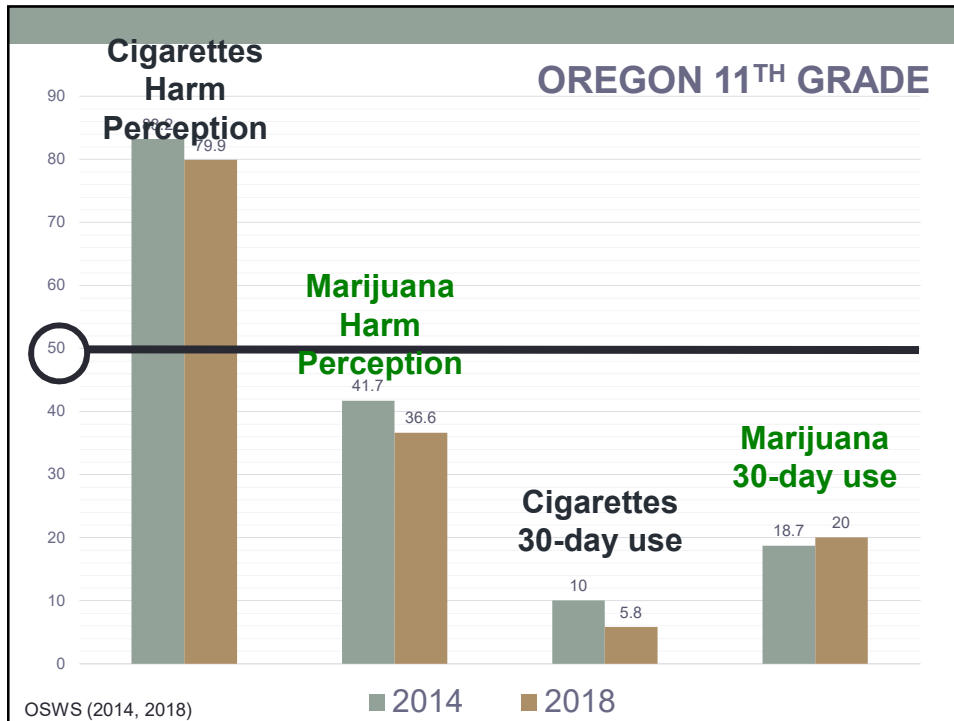
	2006	2008	2010	2012	2014	2016	2018	2020
Ever used	16%	10%	10%	11%	9%	7%	10%	6%
Used once or more in last 30 days	9%	5%	7%	7%	5%	4%	7%	3%
Peer disapproval				New Question	85%	87%	81%	79%
Think risk of harm for using regularly is great/moderate	91%	92%	88%	85%	84%	87%	82%	81%
Parental disapproval of marijuana use				New question	94%	95%	94%	93%

Marijuana Use Trends High School: 2002-2020

	2002	2004	2006	2008	2010	2012	2014	2016	2018	2020
Ever used	41%	35%	33%	34%	36%	36%	33%	32%	34%	30%
Used once or more in last 30 days	25%	21%	18%	19%	23%	22%	20%	18%	19%	16%
Peer disapproval of use						New question	53%	52%	48%	51%
Think risk of harm for using regularly is great to moderate	New>	79%	78%	75%	67%	64%	61%	59%	54%	55%
Ease of Access to marijuana							New Question>	61%	76%	68%
Drove under the influence of MJ or other drugs							New Question>	10%	9%	8%
Parental disapproval of use	New Question >	92%	91%	91%	87%	88%	85%	87%	85%	83%

- Percentage of student who reported using an electronic vapor product to dab: 5% of MS and 20% of HS





Tobacco Marijuana & E-cigarettes Course (TMEC)

TMEC Modules developed

- Perception of Harm vs Teen Use
- Tobacco History & Media Literacy
- Is Marijuana a Medicine?
- CBD, THC & Hash Oil
- Vaping & E-cigarettes
- Health Consequences: Part 1
- Health Consequences: Part 2
- Drug Intoxication
- Impaired Driving
- Refusal Skills
- Helplines & Resources

Tracks for Students & Instructors

Oregon TMEC (Released Oct 2020)

National TMEC (Released Early 2021)

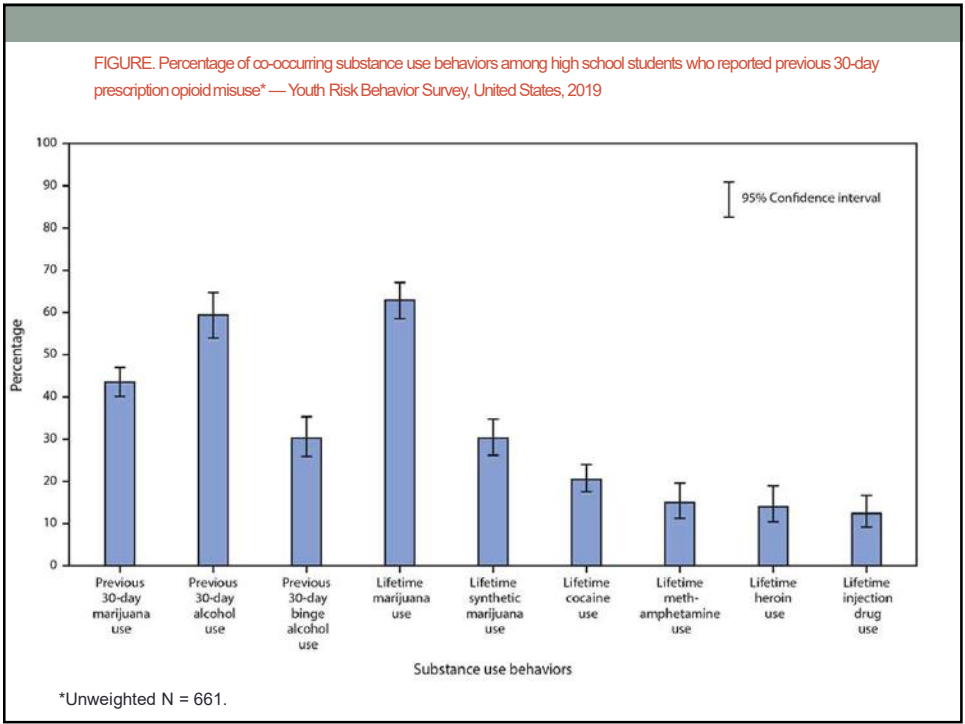
14

The CLEAR Alliance coalitions are partnering with the Prevention Council of Roanoke County Virginia to adapt the Oregon Tobacco Marijuana & E-cigarettes Course (TMEC) and Oregon “Did You Know?” campaign into a national program for other states to be trained and utilize in their communities. Roanoke County offered to be the pilot as the first test site for the National program.

The National “Did You Know?” educational campaign is estimated to launch in November 2020. National TMEC is estimated to launch in early 2021.

prevention council
OF ROANOKE

CCoVA
Community Coalitions of Virginia
Local Substance Abuse Prevention, Statewide



2019 Monitoring the Future Survey Key Findings: Percent Reporting Use of Selected Substances

	8 th Grade	10 th Grade	12 th Grade		8 th Grade	10 th Grade	12 th Grade
Vaping, Any				Tobacco w/ Hookah			
Past Year	20.1	35.7	40.6	Past Year			5.6
Past Month	12.2	25.0	30.9	Past Month	1.3	2.4	4.0
Vaping, Nicotine				Flavored Little Cigars			
Past Year	16.5	30.7	35.3	Past Month	2.2	3.7	7.7
Past Month	9.6	19.9	25.5	Narcotics Other than Heroin			
Vaping, Marijuana				Past Year			2.7
Past Year	7.0	19.4	20.8	Past Month			1.0
Past Month	3.9	12.6	14.0	Marijuana			
Vaping, Just Flavoring				Past Year	11.8	28.8	35.7
Past Year	14.7	20.8	20.3	Past Month	6.6	18.4	22.3
Past Month	7.7	10.5	10.7	Daily	1.3	4.8	6.4
Cigarettes				Alcohol			
Past Month	2.3	3.4	5.7	Past Month	7.9	18.4	29.3
Daily	0.8	1.3	2.4	Daily	0.2	0.6	1.7
½ Pack +/Day	0.2	0.5	0.9	Binge	3.8	8.5	14.4

Change from 2018 to 2019

https ■ Significant Increase ■ Significant Decrease

~In fact, the CDC report states: "Specifically, the high rates of co-occurring substance use, especially alcohol and marijuana use, among students currently misusing prescription opioids highlights the importance of prevention efforts that focus on general substance use risk and protective factors.


~Notably, these associations are not limited to high school students because binge drinking and marijuana use are associated with increased prescription opioid misuse among both adults and adolescents..."

~According to the data, 21.7% of high schoolers report marijuana use and the most common substances used were alcohol and marijuana. 17.1% of 9th and tenth graders reported marijuana use while 26.6% of eleventh and twelfth graders reported marijuana use.

~Furthermore, 43.5% of students who reported currently abusing prescription opioids also reported currently using marijuana.

~While use rates of most drugs amongst high schoolers are dropping, marijuana use either remains steady or is increasing, according to the data

<https://www.drugabuse.gov/publications/drugfacts/monitoring-future-survey-high-school-youth-trends>



Local doctor sees increase in toddler pot overdoses

A Grand Rapids, Michigan ER doctor says marijuana overdoses among toddlers and teens have become a public-health problem. Dr. Erica Michiels, associate medical director in the pediatric department at Helen DeVos Children's Hospital, says she recently worked several shifts in a row and admitted six toddlers to the hospital for marijuana ingestion. Five of the children had to go to intensive care.

She says toddlers with such tiny bodies who eat marijuana concentrates in infused candies can not only overdose, but die.

Our thanks to Parents Opposed to Pot for bringing this story to our attention.

<https://www.woodtv.com/news/grand-rapids/local-doctor-sees-increase-in-toddler-pot-overdoses/>

The data is showing that in states where legalization has occurred that:

- Incidence of adolescent use is rising – and an increase in teen suicide is occurring (where the suicide teens tested positive for THC)
- THC is physiologically addictive and the long-term ramifications on adolescent brain development are revealing long-term detriment.
- With legalization has come a significant increase in consumption therefore increasing the number of people becoming addicted to cannabis – at current date, cannabis addiction rates are as follows: approximately 10% of all users become addicted and for adolescents that number is 17%.
- With an increase in use and users, there will inevitably be an increase in the societal economic burden from a medical, legal, treatment, lost wages/earnings, “under the influence” increase in crime.

The screenshot shows the website for National Families in Action (NFA). The logo features the word "families" in a stylized font with a globe icon above the 'i', and "NATIONAL FAMILIES IN ACTION" below it. To the right of the logo is a navigation menu with items: Home, About, Report, 2.0, Board, Reports, Projects, and Donate. Above the menu, there are links for "The Marijuana Movement", "Parent Advisory Board", "Science Advisory Board", "NFA Reports", and "Past Projects". A red tagline reads "Protecting kids from addictive drugs with science, not spin". Below the navigation is a green banner with a photo of a child in a field and the text "Podcasts What Do I Need to Know about Marijuana?". Below the banner is a blue hyperlink: https://www.nationalfamilies.org/science_advisory_board/podcasts.html

Take Aways

- Work closely with Community Coalitions of VA – all coalitions, especially those that are DFC grantees or current have local data on marijuana
 - Support local coalitions that have built relationships:
 - SAFE, Prevention Council and other sister coalitions have been working since 2014 on both marijuana prevention and advocacy, have visited CO, WA and OR since 2014 to see what is happening there and have built relationships with law enforcement, other coalitions to continue to study how they are dealing with legalization and the health impacts on youth and families; are on monthly calls with Southern states – sub group of National SAM – Smart Approaches to Marijuana
- Board of Pharmacy Regulatory Group 2017: What is the status of the pharmaceutical processor regulations for CBD, THC-A, THC oils in Virginia? Are any up and running? Is there data being collected?
- Gather data at the local level regarding the health questions around marijuana
 - Ask for all schools to have and use youth data on risk and protective factors
 - Visit the states that have already legalized. Use the most recent Rocky Mountain HIDTA reports
 - Ensure that prevention \$\$\$ go to local communities specific to prevention in grades K-12 and messaging to parents, grandparents and young adults
 - Ensure that marijuana curriculum is implemented in the schools similar to opioid prevention curriculum
 - Continue to monitor, collect data and support CCoVA in these efforts
 - Follow the science and research around youth brains and continue to learn from the opioid crisis and the current crisis of addiction

Cannabis Legalization - Factors to Consider

Tom Bannard, MBA, CADC
Virginia Commonwealth University

My Bias and Disclosures

- ▶ In recovery from a severe AUD and CUD
- ▶ Have a felony conviction from distribution of Cannabis
- ▶ Life saved by Legalization
- ▶ Work w/ College Students in Recovery from Addiction including CUD
- ▶ Bias towards policies driven by prevention/reduction of use, and which are motivated by health rather than fear, blame or profit

Outline

- ▶ Drug Policy Options
 - ▶ Criminalization
 - ▶ Decriminalization/Depenalization
 - ▶ Legalization without Commercialization
 - ▶ Legalization with limited Commercialization
 - ▶ Legalization with full Commercialization
- ▶ Health impacts of Cannabis and Changing Cannabis landscape
- ▶ Policy claims and their impact

Policy Continuum

- ▶ Prohibition (Criminalization)
- ▶ Decriminalization (you are caught in possession of small amounts of a drug for personal use, you do not incur a criminal penalty. It is still illegal to use the drug. The penalty, however, is typically nothing more than a modest fine)
- ▶ Defacto Decriminalization - existing criminal law prohibiting use is no longer enforced.
- ▶ Medicalization is medically “recommended” rather than actually “prescribed,” due to a limited availability of rigorous empirical evidence on health benefits.
- ▶ Legalization- **without commercialization** (bans product branding and advertising that are designed by industries to proactively increase sales, consumption, and profits. An alternative is to have local, state, or federal control over the production and sale of the drug.
- ▶ Legalization - **with limits on commercialization** such things as having a minimum age for use (e.g. being at least age 21), ensuring quality control in production, and listing of ingredients including the nature and potency of its psychoactive content; limiting the number of licensed sales outlets in a given area; prohibiting use under certain conditions, such as when driving a car; and having a minimum price per unit ...
- ▶ Legalization -with FULL commercialization

#1 - Its not your parent's pot

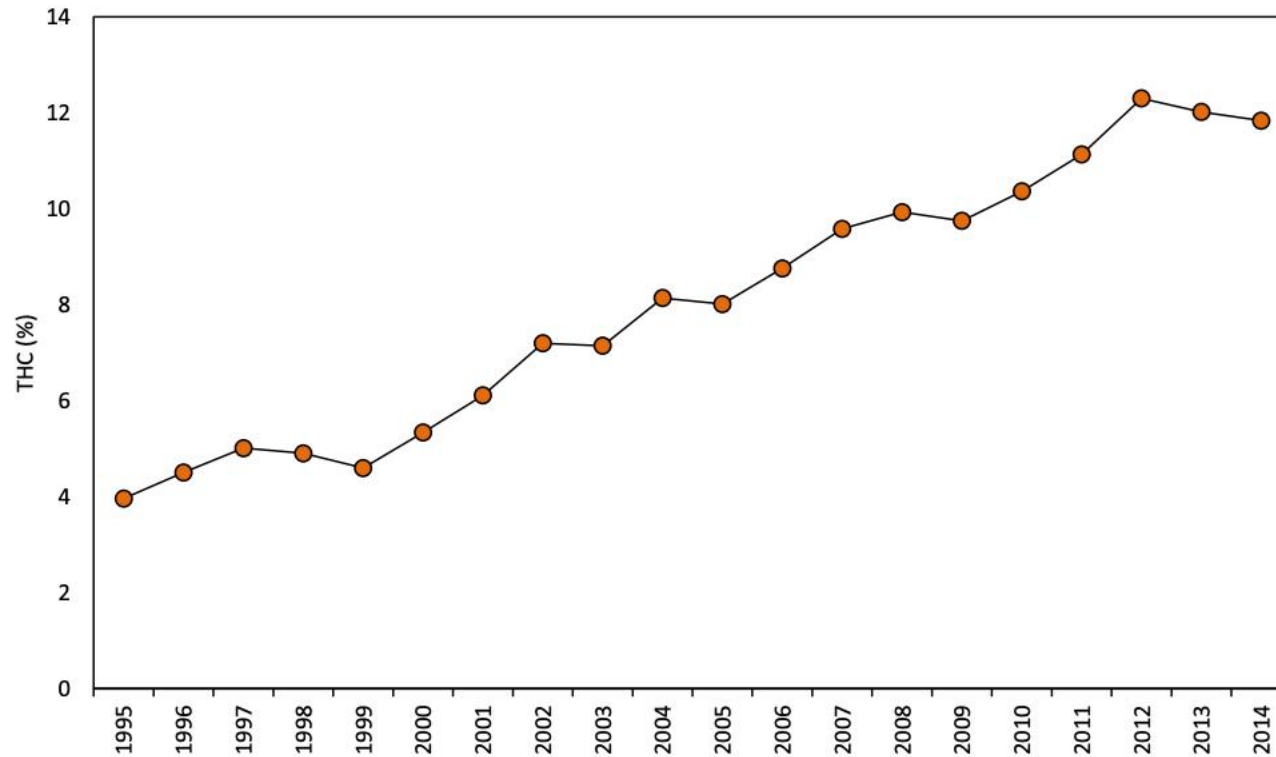


Figure 1. Average Δ^9 -tetrahydrocannabinol (THC) concentration of Drug Enforcement Administration specimens by year, 1995–2014.

El Sohly, M.A., Mehmedic, Z., Foster, S., Gon, C., Chandra, S., & Church, J.C. (2016). Changes in cannabis potency over the last two decades (1995-2014) –Analysis of current data in the United States. *Biol Psychiatry*, 79, 613-619.

Potency in Washington State

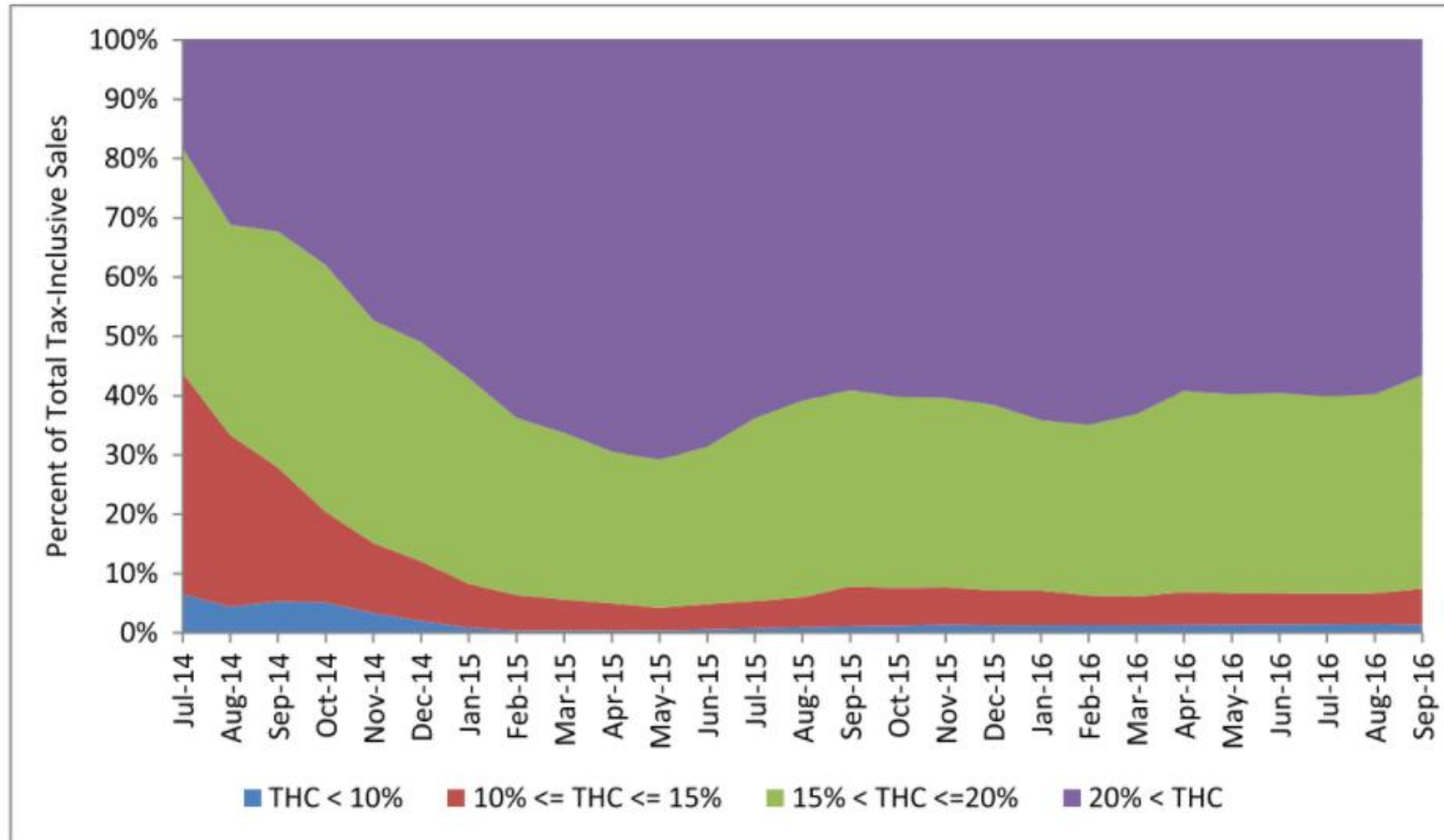
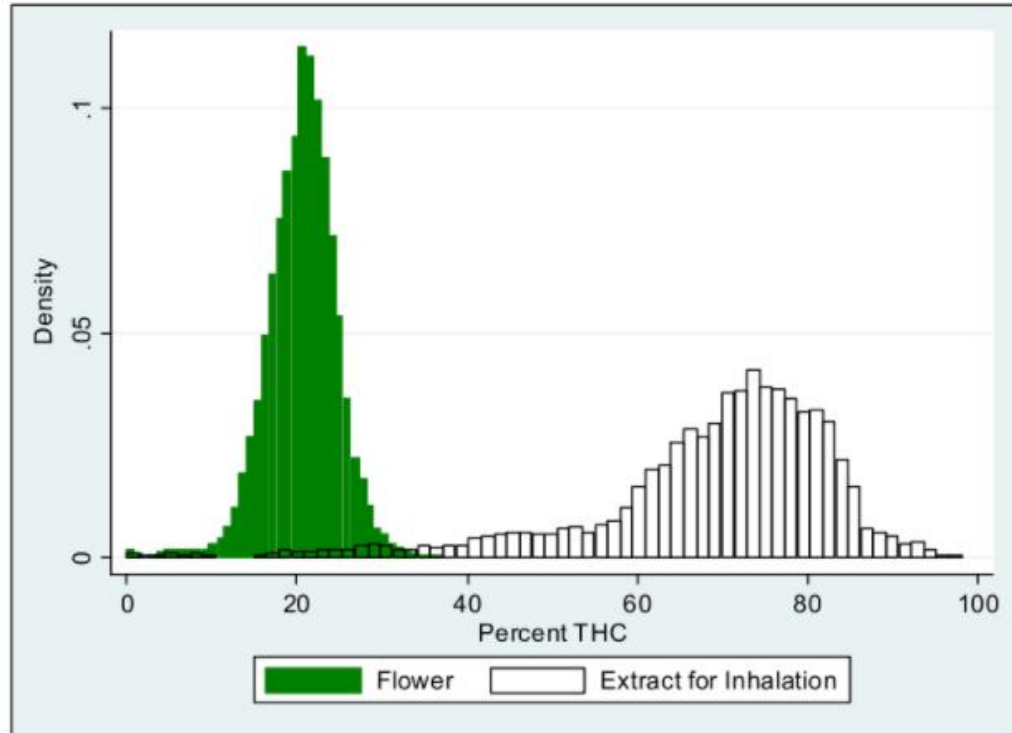


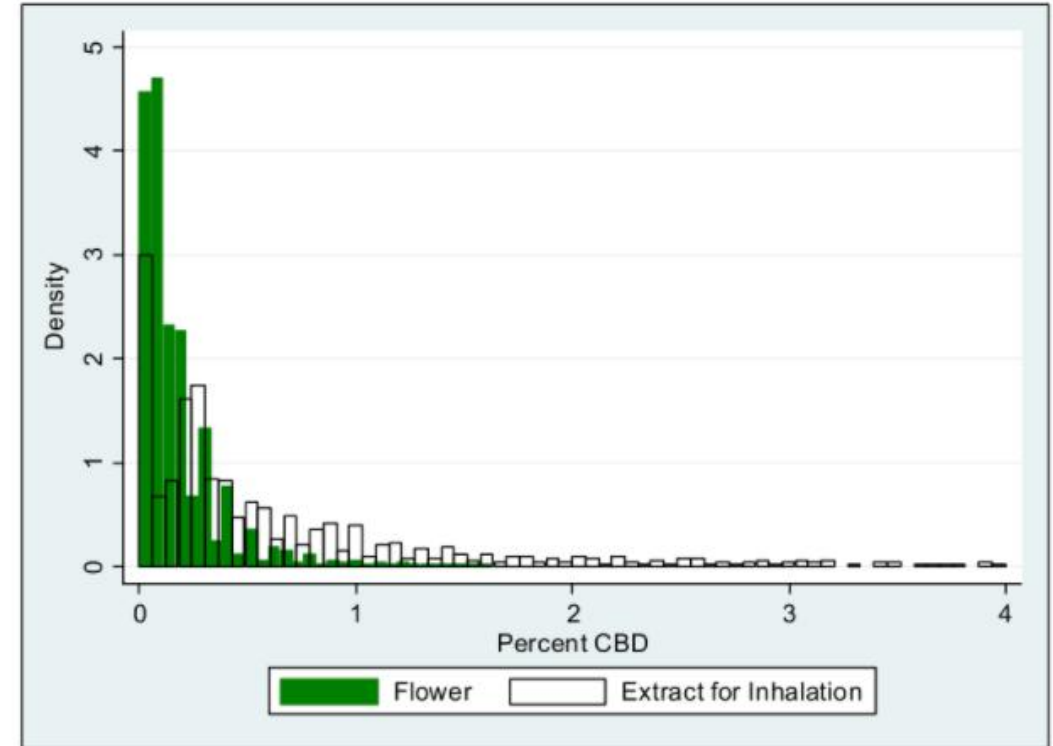
Figure 3 Market shares for cannabis flower products sold, by delta-9-tetrahydrocannabinol (THC) % category. Market share is calculated as a percent of total cannabis flower expenditures (excise-tax-inclusive). [Colour figure can be viewed at wileyonlinelibrary.com]

This is about THC

a. % THC

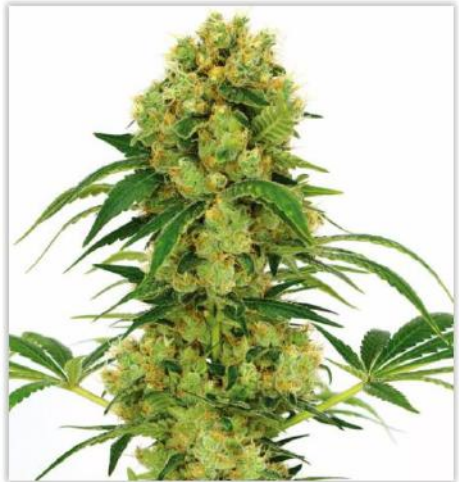


b. % CBD, Restricted to less than 4% CBD



THC - The dose and delivery method make a difference

Photo from <http://treespotshop.com/greenwoods-best-cannabis-concentrates/>



Shatter



Wax



Crumble



Budder



Oil

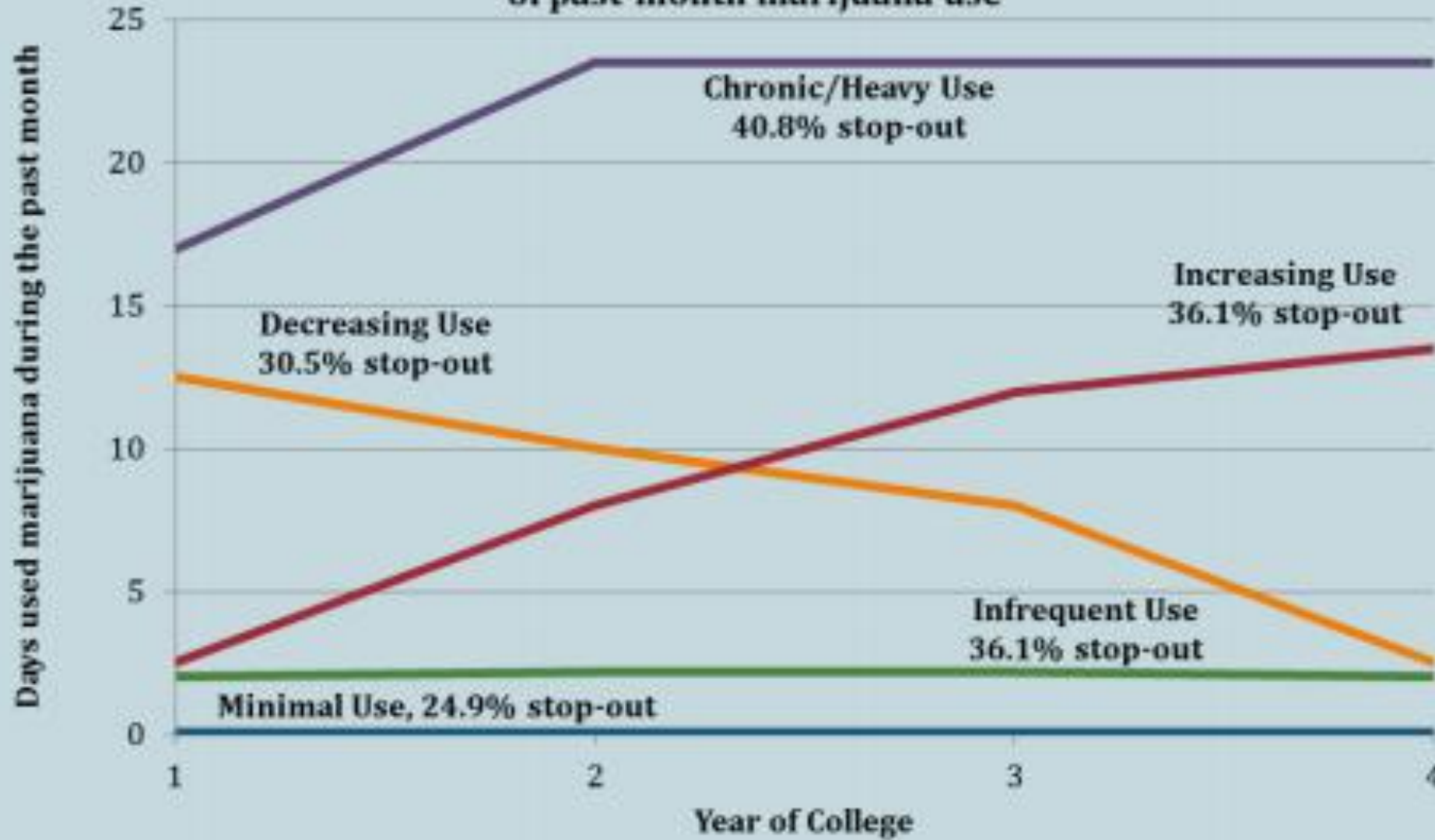


#2 - It's just weed, mom

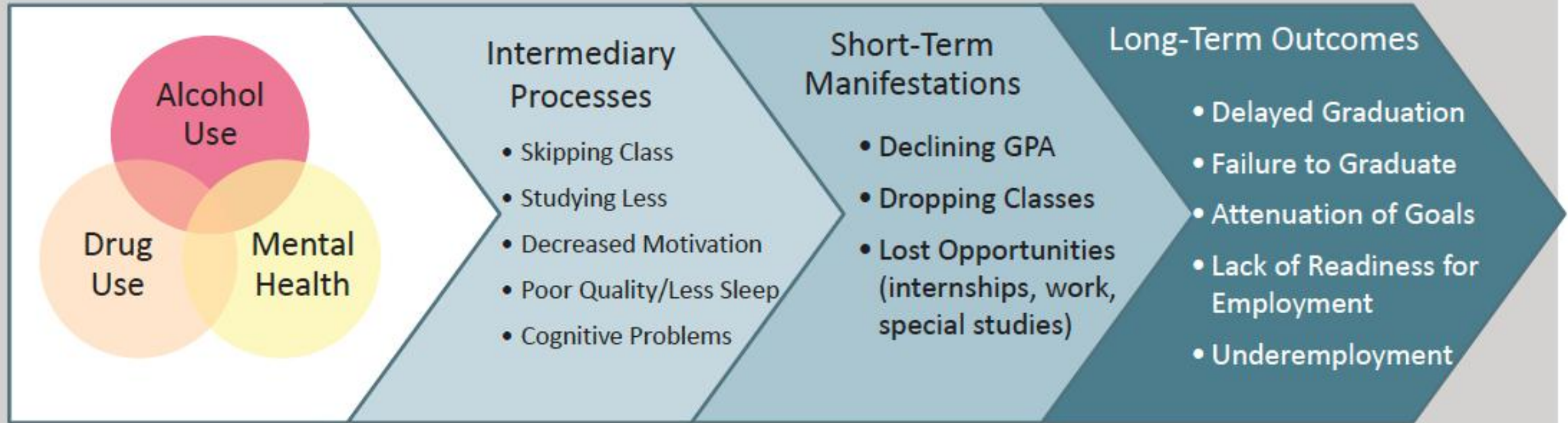
- ▶ Cannabis is addictive and withdrawal syndrome exists.
- ▶ Cannabis use is associated with impaired neurocognitive functioning.
- ▶ Cannabis use is linked to academic disengagement and can impede academic achievement.
- ▶ Cannabis use can adversely affect employment prospects.
- ▶ Cannabis use is associated with reduced quality of life and psychosocial functioning.
- ▶ Cannabis use can exacerbate and/or raise risk of mental health problems.
- ▶ Cannabis use overlaps with excessive drinking, nicotine and other drug use and raises risk of a substance use disorder.

Arria, Amelia. "12 Things to Know About College Cannabis Use." Maryland Collaborative. Wednesday, January 23 2019.

Figure 3. Risk for discontinuous enrollment or “stop-out” by pattern of past-month marijuana use



Source: Arria AM, Garnier-Dykstra LM, Caldeira KM, Vincent KB, Winick ER, O’Grady KE. Drug use patterns and continuous enrollment in college: Results from a longitudinal study. *J Stud Alcohol Drugs*. 2013;74(1):71-83.



Perceived Risk in Washington State

- ▶ Marijuana - Decreased perception of risk
 - ▶ Physical risk of occasional marijuana use
 - ▶ Psychological/emotional risk of occasional marijuana use
 - ▶ Physical risk of regular marijuana use
 - ▶ Psychological/emotional risk of regular marijuana use
- ▶ Alcohol - Increased perception of risk
 - ▶ Physical risk of 2 drinks every day
 - ▶ Psychological risk of 2 drinks every day
 - ▶ Psychological risk of 5+ drinks every weekend

From: Jason Kilmer, Mary Larimer, Isaac Rhew, Nicole Fossos-Wong, and Rachel Cooper. "Six Years of Outcomes from the Young Adult Health Survey". Seattle Washington, August 21, 2020

#3 Legalization without smart regulation will increase use

Any past year "recreational"/non-medical/personal use:
Final three cohorts higher than cohort 1

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Total across 6 years
18-20	43.27%	44.82%	40.94%	43.41%	44.42%	43.68%	43.37%
21-25	43.67%	47.09%	46.55%	49.75%	50.87%	49.61%	47.98%
TOTAL	43.51%	46.29%	44.76%	47.43%	48.49%	47.24%	46.30%

Regression models:

Cohort 1 vs. Cohorts 2-6:

Compared to Cohort 1, significantly higher prevalence for

- Cohort 4 (t=2.29, p<.05; odds ratio = 1.171)
- Cohort 5 (t=2.96, p<.01; odds ratio = 1.222)
- Cohort 6 (t=2.11, p<.05; odds ratio = 1.163)

From: Jason Kilmer, Mary Larimer, Isaac Rhew, Nicole Fossos-Wong, and Rachel Cooper. "Six Years of Outcomes from the Young Adult Health Survey". Seattle Washington, August 21, 2020

Legalization will increase use

At least weekly "recreational"/non-medical/personal use:
Increasing for 21-25 year olds

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Total across 6 years
18-20	16.51%	13.43%	13.30%	15.40%	18.56%	14.41%	15.42%
21-25	16.86%	16.21%	18.55%	18.42%	19.22%	21.39%	18.48%
TOTAL	16.72%	15.23%	16.85%	17.37%	19.03%	18.59%	17.38%

Model split by over/under 21

18-20:

No significant linear trend

21-25:

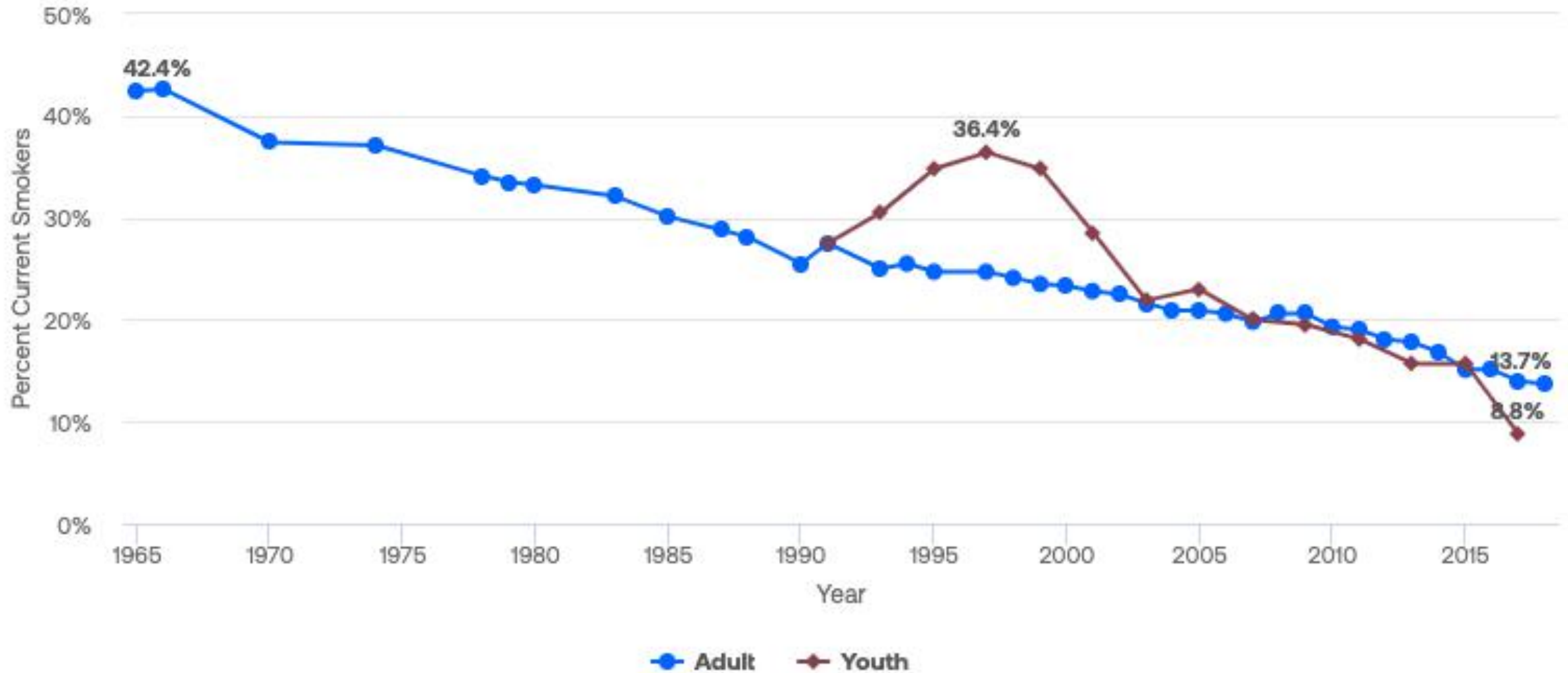
Significant increasing trend over time ($t=2.69$, $p<.01$)

Odds ratio = 1.059

Jason Kilmer, Mary Larimer, Isaac Rhew, Nicole Fossos-Wong, and Rachel Cooper.
"Six Years of Outcomes from the Young Adult Health Survey". Seattle Washington,
August 21, 2020

Cigarette smoking rates have fallen significantly for both youths and adults

American Lung Association analysis of CDC data: NHIS 1965-2018. YRBSS 1995-2017.



Overall Tobacco Trends. Retrieved from American Lung Association:

<https://www.lung.org/research/trends-in-lung-disease/tobacco-trends-brief/overall-tobacco-trends>

Public Policy Strategies to improve health of the Commonwealth

- ▶ Substantial energy should be expended to prevent another big tobacco
- ▶ Policies should largely be based on evidence based Tobacco policies not Alcohol
- ▶ No Fox in the Hen House Rule
- ▶ Restrictions on Potency
- ▶ Extensive limitations on advertising
- ▶ State Monopoly on Sales (and possibly production)
- ▶ Tax revenue should go towards mitigating damage, repairing past harms of drug policy, Public Health Strategies including Prevention, Treatment and Harm Reduction, and research into the efficacy of policies

Public Health Wins from Legalization

- ▶ Major Reduction of Black Market - In Washington State (21-25 year olds) decline from 73% getting from friends to 25% over 6 years. (Kilmer 2019)
- ▶ Reductions of arrests and absolute disparities connected to Marijuana in all races: however, relative disparities increased (Firth 2019)
- ▶ Increase in age of initiation for Washington State (Kilmer 2019)
- ▶ Decline of driving when intoxicated by young people over time(Kilmer 2019); however, overall DWI fatalities involving Cannabis have increased since legalization (Tefft 2020)

Tefft, B. C. & Arnold, L. S. (2020). Cannabis Use Among Drivers in Fatal Crashes in Washington State Before and After Legalization (Research Brief). Washington, D.C.: AAA Foundation for Traffic Safety.

Firth CL, Maher JE, Dilley JA, Darnell A, Lovrich NP. Did marijuana legalization in Washington state reduce racial disparities in adult marijuana arrests? *Subst Use Misuse* 2019;54:1582–7.

Jason Kilmer, Mary Larimer, Isaac Rhew, Nicole Fossos-Wong, and Rachel Cooper. “Six Years of Outcomes from the Young Adult Health Survey”. Seattle Washington, August 21, 2020

INCARCERATION RATES

COMPARING VIRGINIA
AND FOUNDING NATO COUNTRIES

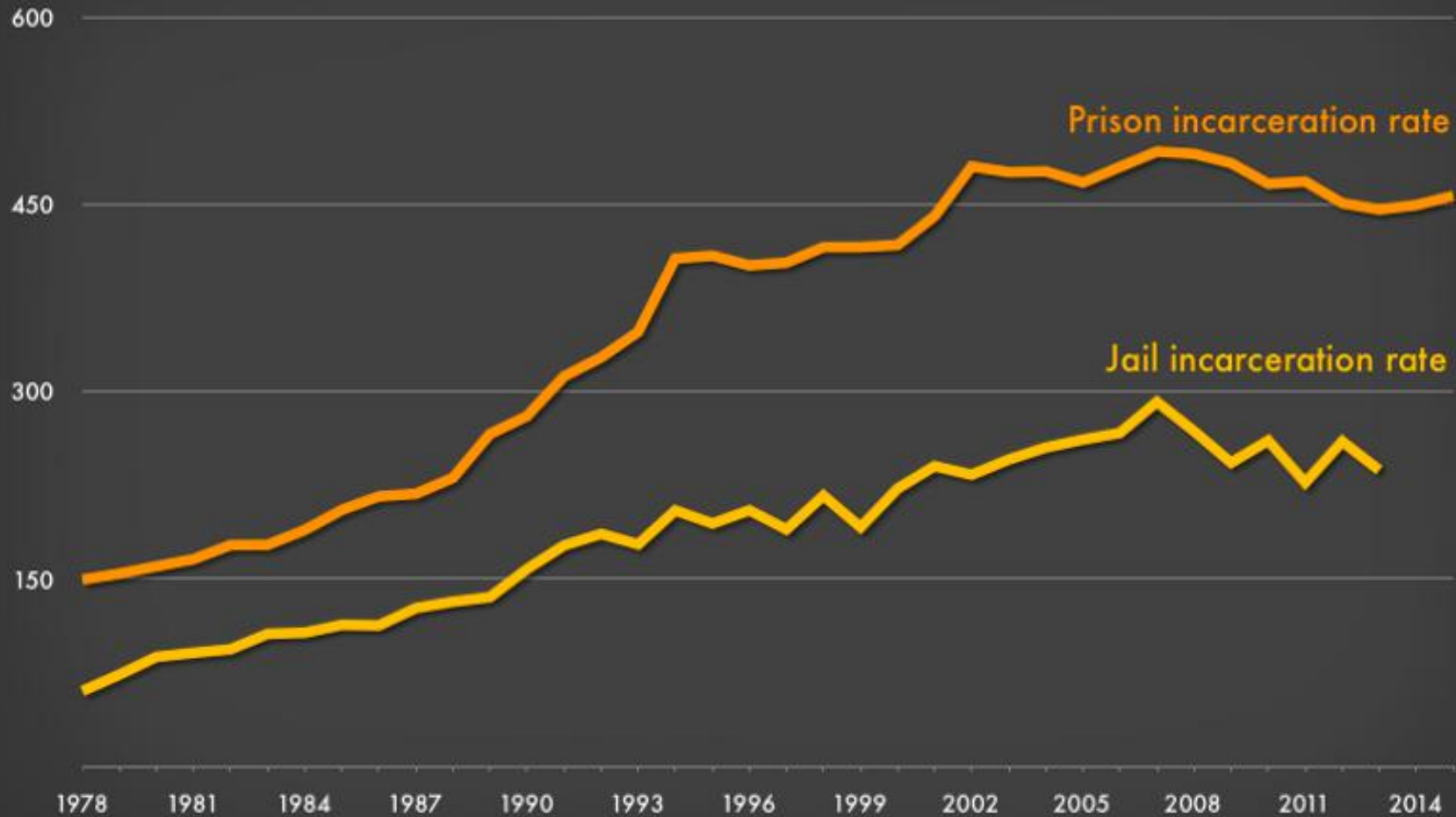


Incarceration rates per 100,000 population

Source: <https://www.prisonpolicy.org/global/2018.html>

Virginia's prison and jail incarceration rates

Number of people incarcerated in state prisons and local jails per 100,000 people, 1978-2015

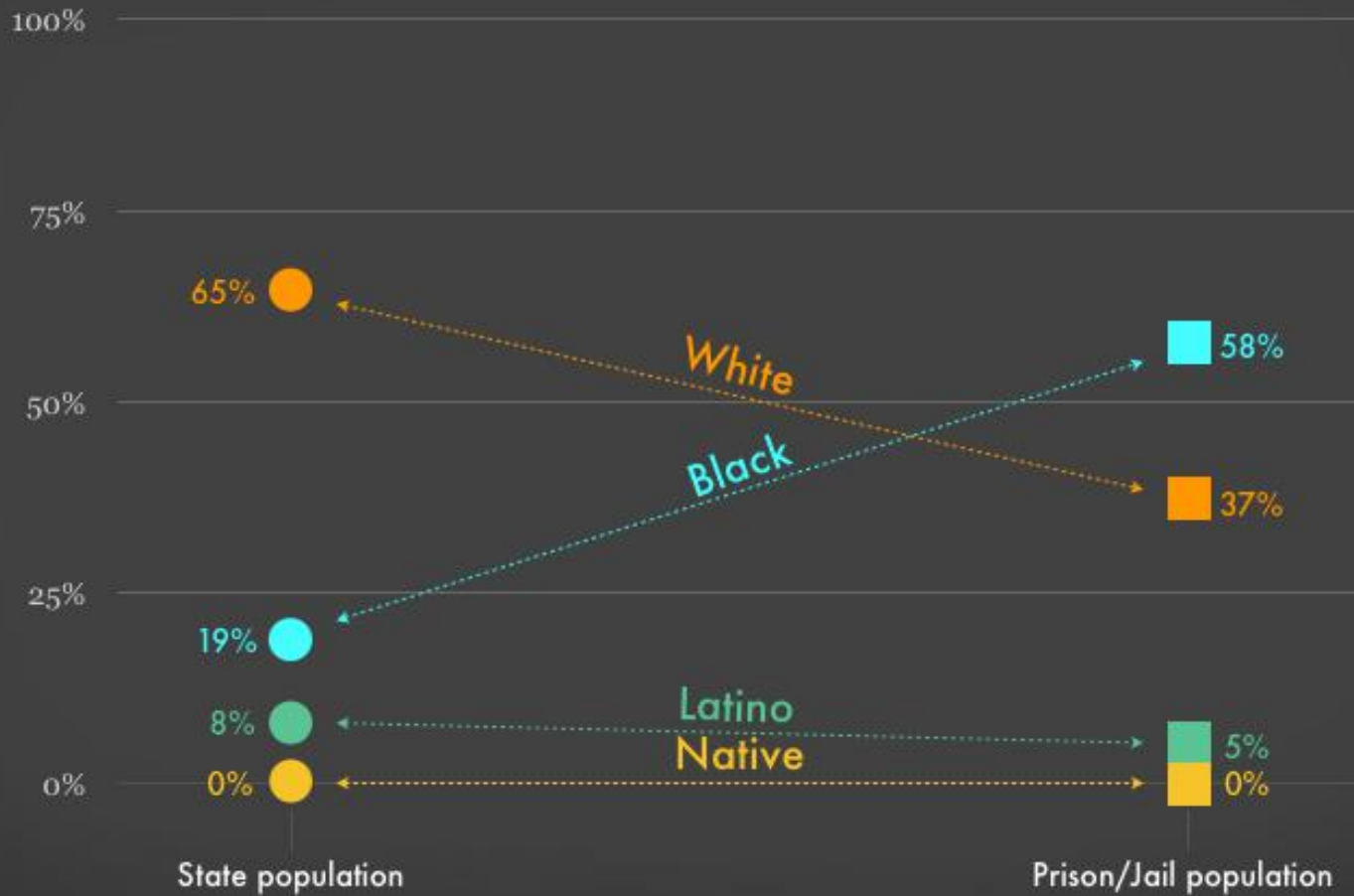


Jail populations were adjusted to remove people being held for federal and state authorities.
For full sourcing, see: www.prisonpolicy.org/reports/jailsovertime.html#methodology

PRISON
POLICY INITIATIVE

Racial and ethnic disparities in prisons and jails in Virginia

Whites are underrepresented in the incarcerated population while Blacks are overrepresented.



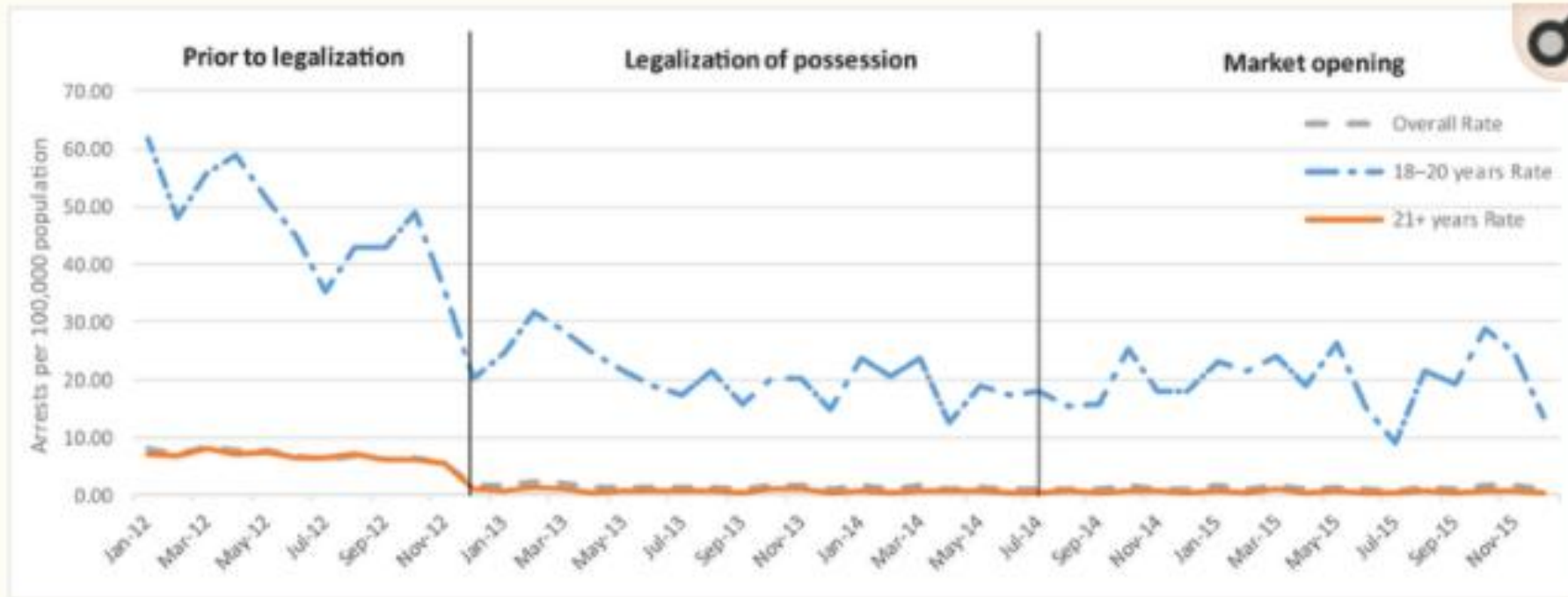


Figure 1.

Marijuana-related arrests among adults over time for those of legal age (21+) and those underage (18–20), Washington State,* 2012–2015.

Notes. Arrests include citations. We included only one arrestee per incident. Data are limited to those areas of the state reporting to the National Incident Based Reporting System.

Not enough evidence, but important

- ▶ Relationship of Cannabis to Opioid Use Disorder and Overdose
- ▶ Relationship of legalization to use of cannabis VS or in addition to alcohol
- ▶ Relationship between help seeking and legalization of cannabis
- ▶ Relationship between substance related violence and legalization
- ▶ Relationship between legalization and connection to use of other illicit drugs
- ▶ Relationship between legalization and other crime especially violent crime
- ▶ Does the illegality of cannabis reduce the effectiveness of prevention messaging

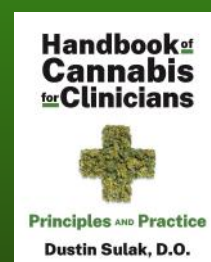
Virginia Marijuana Legalization Health Impacts and Legal & Regulatory Subgroup

September 14, 2020

Dr. Dustin Sulak

Introduction: Dustin Sulak, DO

- Not a public health or policy expert
- General practitioner with 11 years clinical experience treating thousands of patients who did not respond to conventional therapy with cannabis.
- Internationally-recognized author and educator of clinicians, cannabis industry professionals, and patients



Overview

- Public safety impact
 - Youth use patterns
 - Traffic safety
 - Crime
 - Occupational injuries
- Individual health impact
 - Healthcare savings on drugs
 - Protective effect on chronic disease and acute incidents?
 - Therapeutic horticulture
- Need for evidence-based education

Marijuana Legalization and Its Impact on Public Safety

- Youth use patterns
- Traffic safety
- Crime
- Workplace issue

Nationwide, Youth Cannabis Use Has Trended Downward Over the Past Two Decades

- 2020 review of Youth Risk Behavior Survey data (CDC):
 - “Lifetime marijuana use ... decreased during 2013–2019... The findings in this report indicate that youth substance use has declined in recent years.”
- 2018 National Survey on Drug Use and Health (SAMHSA)
 - Rates of past-year marijuana use by those ages 12 to 17 have fallen consistently since 2002; since 2012, past-year youth use has fallen eight percent nationwide.

Youth Cannabis Use is Similarly Falling in Adult-Use Legalization States

- *JAMA Pediatrics* (Anderson et al., 2019) – “Recreational marijuana laws were associated with an eight percent decrease in the odds of marijuana use and a nine percent decrease in the odds of frequent marijuana use.”
- “Consistent with the results of previous researchers, there was no evidence that the legalization of medical marijuana encourages marijuana use among youth. Moreover, the estimates reported ... showed that marijuana use among youth may decline after legalization for recreational purposes.”

Traffic Safety: No Indication *Medical* Legalization Has Negative Impact

- *Journal of Experimental Criminology* (Bartos et al., 2018) – “This paper reports a quasi-experimental evaluation of California’s 1996 medical marijuana law on statewide motor vehicle fatalities between 1996 and 2015. ... **We found that legalizing medical marijuana in California led to a sustained reduction in statewide motor vehicle fatalities.**”
- *Journal of the American Public Health Association* (Santaella-Tenorio et al., 2016) – “[O]n average, medical marijuana law states had lower traffic fatality rates than non-MML states.... **Medical marijuana laws are associated with reductions in traffic fatalities, particularly among those aged 25 to 44 years.**”

Traffic Safety

- In contrast, studies assessing the impact of adult-use legalization laws on traffic safety are less consistent.
- *Traffic Injury Prevention* (Calvert & Erickson, 2020) – “**Overall findings do not suggest an elevated risk of total or pedestrian-involved fatal motor vehicle crashes associated with cannabis legalization.**”
- “Washington and Oregon saw immediate decreases in all fatal crashes (-4.15 and -6.60) following medical cannabis legalization. Colorado showed an increase in trend for all fatal crashes after recreational cannabis legalization and the beginning of sales (0.15 and 0.18 monthly fatal crashes per 100,000 people).

Traffic Safety

- Most studies show no increase in accidents attributable to legalization
- *American Journal of Public Health* (Aydelotte et al., 2016) – “Three years after recreational marijuana legalization, changes in motor vehicle crash fatality rates for Washington and Colorado were not statistically different from those in similar states without recreational marijuana legalization. Future studies over a longer time remain warranted.”

Traffic Safety

- Some studies do identify a small increase in motor vehicle accidents which may be attributable to legalization
- *Accident Analysis and Prevention* (Aydelotte et al., 2019) -- “In the five years after legalization, fatal crash rates increased more in Colorado and Washington than would be expected had they continued to parallel crash rates in the control states (+1.2 crashes/billion vehicle miles traveled, but not significantly so.”

Crime

- Neither cannabis legalization nor retail marijuana sales are associated with problematic increases in overall criminal activities
- *Justice Quarterly* (Lu et al., 2019) -- “[M]arijuana legalization and sales have had minimal to no effect on major crimes in Colorado or Washington. We observed **no statistically significant long-term effects of recreational cannabis laws or the initiation of retail sales on violent or property crime rates** in these states.”
- *Police Quarterly* (Makin et al., 2018) -- “Our models show **no negative effects of legalization** and, instead, indicate that crime clearance rates for at least some types of crime are increasing faster in states that legalized than in those that did not.”

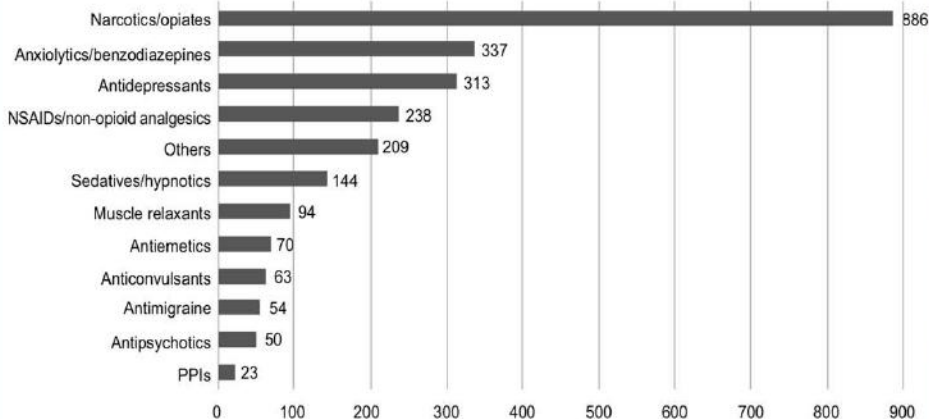
Crime

- *Regional Sciences and Urban Economics* (Brinkman & Mok-Lammea, 2019) – “Overall, our results suggest that **dispensaries cause an overall reduction in crime in neighborhoods**, with no evidence of spillovers to surrounding neighborhoods.”
- *Journal of Urban Economics* (Chang & Jacobson, 2017) – “In the City of Los Angeles, we find no support for the idea that closing dispensaries reduces crime. ... A quick cost calculation suggests that **an open dispensary provides over \$30,000 per year in social benefit in terms of larcenies prevented.**”

Occupational Injuries

- Cannabis liberalization laws, to date, have not been associated with any increase in occupational accidents
- *International Journal of Drug Policy* (Anderson et al., 2020) -- “Five years after coming into effect, MMLs were associated with a 33.7% reduction in the expected number of workplace fatalities.”
- *Health Economics* (Ghimire & Maclean, 2020) -- “Post MML, WC claiming declines, both the propensity to claim and the level of income from WC. These findings suggest that medical marijuana can allow workers to better manage symptoms associated with workplace injuries and illnesses and, in turn, reduce need for WC.”

Substitution for Prescriptions



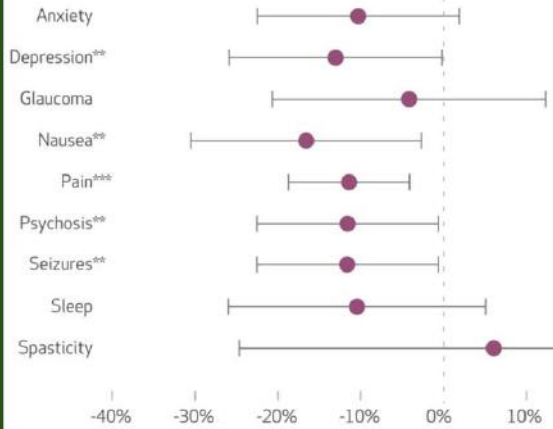
n = 2,473
(survey)
All 50 states
represented

*Journal of pain
research,
Corroon,
Mischley &
Sexton, 2017*

Figure 1 Number of reported prescription drug substitutions, by drug category, during 2016 (n=2,473).
Abbreviations: PPI, proton pump inhibitor; NSAIDs, nonsteroidal anti-inflammatory drugs.

Medical Cannabis Laws

Changes associated with a state's having a medical marijuana law in Medicaid prescription drug spending on drugs used to treat conditions with medical m

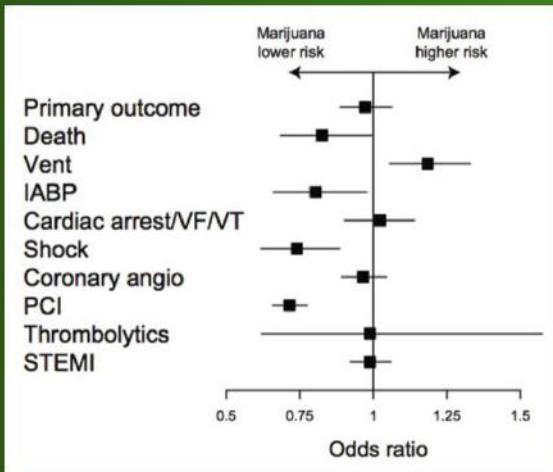


Health Affairs, Bradford & Bradford, 2017

Estimated federal and individual states' 2014 savings associated with having a medical marijuana law in Medicaid prescription drug spending on drugs used to treat conditions with medical marijuana indications

State	Estimated savings (\$)	
	State's share	Federal share
AK	1,944,311	1,944,311
AZ	72,101	147,921
CA	98,007,503	98,007,503
CO	14,429,495	14,429,495
CT	20,713,760	20,713,760
DE	4,303,530	5,326,208
DC	1,213,247	2,830,910
HI	3,913	4,214
IL	16,748,519	16,748,519
ME	3,432,821	5,495,192
MD	6,125,628	6,125,628
MA	10,666,546	10,666,546
MI	15,964,564	31,436,160
MN	4,696,356	4,696,356
MT	1,672,696	3,295,216
NV	3,770,236	6,447,206
NH	350,141	350,141
NJ	899,421	899,421
NM	118,849	267,024
NY	7,681,603	7,681,603
OR	5,033,148	8,621,622
RI	132,468	133,052
VT	3,105,997	3,813,132
WA	2,327,151	2,327,151

Cannabis Use and Myocardial Infarction Outcomes



Hospital record review of 1,273,897 patients in 8 states; 3,854 reported cannabis use on admission

- ≤ 70 years, no alcohol, cocaine, or meth
- multivariate analysis accounting for age, race, payer, and known cardiac risk factors

Johnson-Sasso et al., 2016

THC Associated With Decreased Mortality In Traumatic Brain Injury

- n=446
- Mortality:
 - Overall 9.9%
 - THC+ 2.4%
 - THC- 11.5%
- Odds ratio of mortality with THC+
 - 0.224 [.051, .991; P=.049]

Nguyen et al., 2014

Cannabis Use Associated With Lower Incidence of Obesity

- NESARC study, n=43,093
 - Non-using 22%
 - Using cannabis \geq 3x/week 14.3%
- NCS-R study, n=9,282
 - Non-using 25.3%
 - Using cannabis \geq 3x/week 17.2%

Le Strat & Le Foll, 2011

Pittsburgh Youth Study, prospective from age 7 to 32, n=253.

Greater cannabis exposure was associated with

- Lower body mass index
- Smaller waist-to-hip ratio
- Better HDL and LDL cholesterol
- Lower triglycerides
- Lower fasting glucose and insulin resistance
- Lower systolic and diastolic blood pressure
- Fewer metabolic syndrome criteria

Therapeutic Horticulture



Need for Evidence-based Education

- What does responsible intake look like?
- How to minimize potential harm
 - Delivery methods
 - Vaporizer vs vape oil vs smoke flower vs concentrate?
 - How to avoid and manage overdose
 - How to avoid and reverse tolerance
 - How to use cannabis as a home remedy?
 - Guidance for those who struggle with substance abuse (and want to use cannabis for harm reduction)

Cannabis Legalization Workgroup

Health Impacts Subgroup



Peter Breslin, MD

September 14th, 2020

Cannabis Use Disorder

Use of Cannabis for > 1 year AND the presence of at least two of the below:

- 1) Taken in larger amounts or over a longer period than intended
- 2) Persistent attempts to cut down or control use without success
- 3) Great deal of time spent obtaining, using or recovering from Cannabis
- 4) Craving or strong desire/urge to use
- 5) Recurrent use resulting inability to fulfill major role obligations
- 6) Continued use despite having social or interpersonal problems caused by Cannabis
- 7) Important social, occupational or recreational activities given up or reduced due to use
- 8) Recurrent use in situations that are physically hazardous
- 9) Use is continued despite knowing it causing physical or psychological problems
- 10) Tolerance to Cannabis

Cannabis Use Disorder

Severity

Mild: 2 to 3 symptoms present

Moderate: 4 to 5 symptoms present

Severe: 6+ symptoms present

Cannabis Research

THC is a Schedule I substance in the United States, therefore it is legally prohibited from being used in scientific studies. However, other countries like Israel have done studies, but the sample sizes have been small and are not easily generalizable

CBD isolate (no THC) has not been a controlled substance, but research has been limited or inconclusive

Mental Health Negatives of Cannabis

Psychosis - use of high dose THC can cause episodic psychotic states. Conclusions regarding THC leading to Schizophrenia are unclear

Anxiety - use of Cannabis can acutely worsen anxiety states despite alleviating many forms of anxiety when taken in a controlled manner

“Over 12 months of treatment, cannabis users exhibited less compliance and higher levels of overall illness severity, mania, and psychosis compared with nonusers. Additionally, cannabis users experienced less satisfaction with life and had a lower probability of having a relationship compared with nonusers.”

van Rossum, I., Boomsma, M., Tenback, D., Reed, C., & van Os, J. (2009). Does Cannabis Use Affect Treatment Outcome in Bipolar Disorder? *The Journal of Nervous and Mental Disease*, 197(1), 35–40. <https://doi.org/10.1097/nmd.0b013e31819292a6>

Mental Health Positives of Cannabis

“evidence strongly supports CBD as a treatment for generalized anxiety disorder, panic disorder, social anxiety disorder, obsessive–compulsive disorder, and post-traumatic stress disorder when administered acutely”

Blessing, E. M., Steenkamp, M. M., Manzanares, J., & Marmar, C. R. (2015). Cannabidiol as a Potential Treatment for Anxiety Disorders. *Neurotherapeutics*, 12(4), 825–836. <https://doi.org/10.1007/s13311-015-0387-1>

“Currently available literature examining marijuana use in PTSD suggests potential benefit for a variety of PTSD symptoms”

Shishko, I., Oliveira, R., Moore, T. A., & Almeida, K. (2018). A review of medical marijuana for the treatment of posttraumatic stress disorder: Real symptom re-leaf or just high hopes? *Mental Health Clinician*, 8(2), 86–94. <https://doi.org/10.9740/mhc.2018.03.086>

Further Review of Cannabis Studies

Benefits and Harms of Cannabis in Chronic Pain or Post-traumatic Stress Disorder: A Systematic Review

August 2017

Prepared for:
Department of Veterans Affairs
Veterans Health Administration
Quality Enhancement Research Initiative
Health Services Research & Development Service
Washington, DC 20420

Prepared by:
Evidence-based Synthesis Program (ESP)
Portland VA Medical Center
Portland, OR
Devan Kansagara, MD, MCR, Director

Investigators:
Principal Investigator:
Devan Kansagara, MD, MCR

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Allison Low
Karli Kondo
Camille Eiven
Bernadette Zakher
Makalapua Motu'apuaka
Robin Paynter
Benjamin J. Morasco

Appendix 13

Health Impacts Subgroup—Meeting Three Minutes

October 14, 2020

11:00 AM

Virtual Meeting via WebEx

<https://www.youtube.com/watch?v=zZUVvwsOXyM>

Meeting Attendees:

Asst. Sec. of Health and Human Resources, on behalf of Secretary Daniel Carey

Jenn Michelle Pedini, Executive Director, Virginia NORML

Nour Alamiri, Chair of the Community Coalitions of Virginia (CCOVA)

Annette Kelley, Deputy Executive Director of the Board of Pharmacy, Virginia Department of Health Professions

Michael Carter, VSU Small Farm Outreach Program and 11th generation farmer

James Hutchings, Toxicology Program Manager at Virginia Department of Forensic Science

Ngiste Abebe, Director of Public Policy, Columbia Care

Heather Martinsen, Virginia Association of Community Services Boards

Brian Moran, Secretary of Public Safety & Homeland Security

Dr. James Thompson, Virginia Center of Addiction Medicine

The meeting was called to order at 11:02am.

Assistant Secretary of Health and Human Resources Catie Finley welcomed everyone to the meeting and said today's agenda is open discussion following the presentations from the last subgroup and full group meetings.

Deputy Secretary Brad Copenhaver called the roll. 7 members were present.

Asst. Sec. Finley did a roll call vote to approve the minutes from the last subgroup meeting on September 14, 2020. Approval of the minutes was unanimous.

Group Discussion

Asst. Sec. Finley handed it over to Ms. Alamari, Subgroup co-chair, to facilitate a discussion about items for consideration and policy proposals for the subgroup's final report. We have heard from a number of presenters on the potential health impacts of adult use legalization. The goal for the discussion today is to have a list of potential recommendations/considerations that would maximize the positive health impacts and mitigate the negative health impacts.

Ms. Alamiri: Based on the important points from previous presentations and discussions, we will frame our discussion around the potential health impacts, e.g. safety and access, education, prevention and treatment, and social justice.

With safety and access, there have been discussion around high potency products and the risks of making those available. One of the points raised previously was potentially limiting the THC through a cap or a tier tax system based on potency (e.g. Illinois). Other potential proposals around safety and access include: age requirements - especially due to concerns around marijuana's effect on the developing brain up until age 25; safe storage and preventing youth access, including child resistant packages especially if

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it is a multi-serving packaging; and warnings on packaging including making it opaque with standard font to ensure it does not appeal to kids.

Ms. Pedini:

- Re: THC cap: We should look to what other states are doing and what we do in Virginia already. The way that we control for potency in Virginia's Medical Cannabis Program is through dose limitation, which were adopted through regulatory experience in other states that use 10 mg maximum per dose limit on edible products. That would be wise to adopt. Other states have set additional limits on the total mg dispensed in an edible product, typically is 10 10-mg per sale, with each serving size being clearly indicated as such. That is an industry standard that was also be consistent with our medical program. Particularly with inhalation products, consumers are able to titrate their own dose due to rapid onset. Additionally, THC caps can lead to filler ingredients where the health effects are less known. We want the cleanest, purest product possible and that is something we already worked through with medical program (medium triglycerides).
- Child safety is very important. We should also be mindful of creating products packaging that is not wasteful and is recyclable.

Mr. Hutchings asked if there are products in other states that have cautions/warnings (e.g. for Cannabis Use Disorder) on the products (similar to tobacco)?

- **Mx. Pedini** noted here is a limited amount of space on the package. We want to include information on safe storage, disposal and use, but make sure it is not cumbersome to retailers and consumers. She thinks there should be an insert that does not covering the product information that consumer is looking for on the package. They should include it, but in a way that it is mindful to consumer and retailer.
- **Mr. Hutchings** noted that people often rip off papers and don't read the attachments on products from CVS/Walgreens in detail. (That also goes back to her comment about not being wasteful with packaging.) What if there was signage (i.e. posters) in the facility to indicate the cautions?
- **Mx. Pedini** agreed that patient and consumer information is important and inserts and signage are appropriate.
- **Ms. Abebe:** In Massachusetts there is an insert in bags. Some states have universal THC symbols, but one of the challenges is the multiple product sizes - some as small as a pinky. The regulations should be clear as to what belongs on product and what belongs on packaging.
 - Doctors for Cannabis proposed a universal cannabis symbol and standard labeling on package (similar to food). That would be helpful for consumers.
 - In response to a question from Dep. Sec. Copenhaver about what other states have done: There is some consistency in a lot of states; some have required some type of universal symbol. A lot of states have also used QR codes so folks can scan it and look at safety test results, etc. California also rolled them out to differentiate between licit and illicit cannabis operators. While probably less of an issue in Virginia, that could be important for consumers here as well.
- **Ms. Abebe** added that, in terms of marketing regulations (e.g. can't be but so many feet from a school), it is important to have those be universal and apply to CBD processors as well. She has seen CBD marketing blur the distinctions between their product and medical and adult use marijuana. The advertising should be consistent across all of those tiers.

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Asst. Sec. Finley: Going back to the discussion about doing a THC “cap” or limiting THC per dose, how does that work in formulations where the dose is less clear? In other words, for edibles it is easy to envision what the “dose” or serving is, but what does a “dose” look like in other products?

- **Mx. Pedini:** Re: Inhalation – It can be done through battery timeout with inhalation, so one inhalation is one dose. With inhalation, it comes down to the purity of the product and when you put arbitrary limits on the THC you are encouraging other “fillers” which are often dangerous. Consumers are using these products whether we have a regulated market them or not. The idea of controlling THC cap might be very sensational, and the idea that we should control potency because it somehow improves health is negated by the fact that it is more dangerous to draw consumers into illegal activity or encourage dangerous MCTs. Consumers will inhale more MCT to get to their desired effect.
- **Asst. Sec. Finley:** How do you measure a dose in dabbing, since that has been brought up in several of our presentations? Also, there are other models in terms of potency – would you say those also have the unintended consequences that you described? In Illinois, they use a tiered tax system to create certain incentives and, in Nevada, they have different regulations for medical adult use projects (she believes there is an 100mg limit on the adult use side).
- **Mx. Pedini:** The 100 mg limit is relegated to edible products in Nevada. When we get into concentrates, states control the amounts dispensed typically by weight. The medical program has clear guidelines on how to regulate for that and it is not through the sale of loose concentrates rather through cartridges. That is something the state will have to decide how to regulate: Will concentrates be in cartridges? Single grams the way they are sold in some other states?
- **Ms. Abebe** agrees that the Illinois model with the tiered tax structure is smart. Many states manage this with dispensing limits using ounces for botanical products and grams for concentrates. They generally track with possession limits if there are any.
 - Re: Dabbing - That is also a form of inhalation, which is basically heating and inhaling cannabis oil. So that tracks with vaporization devices in terms of rapid response, where the consumer can quickly determine their intoxication level, and running its course quicker than products absorbed through capillaries. Those formats are often not driving the unintended public health impacts we have been trying to address.
 - Policy solutions should be dispensing caps and the consumer education component. While most of the health concerns come from high potency products, most consumer interest is in low-dose, more controlled experience, even on edibles.

Ms. Alamiri asked the group to discuss age requirements.

- **Mx. Pedini:** The national standard is 21.
- **Dep. Sec. Copenhaver:** Is this a good time to talk about mandatory ID checks?
- **Ms. Alamiri:** Yes and also consumer education, which could be by way of limiting advertising at point of sale.
- **Mx. Pedini:** ID check at entry and purchase are national standard.
- **Ms. Alamiri:** If the national standard is 21, what happens to the population between 21 and 25-26, who are especially vulnerable in terms use and whose brains are still developing, in terms of safe use and education?
- **Mx. Pedini** noted we have the same considerations with alcohol.
- **Mx. Abebe:** There is a state requirement around age-appropriate mental health education, so we should make sure that curriculum is robust. We need to supply mental health resources early on. Mental health issues are often diagnosed in the 21-25 age range. There should be early

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interventions with mental health issues, especially so someone whose mental health issue will be exacerbated by cannabis use is aware of that interaction. Canada's research found that 19 was the most appropriate age for consuming cannabis outside of medical reasons, and 21 is the age for alcohol, which also has poor interactions with mental health.

- **Dr. Thompson** – There is a great risk of both cannabis use and cannabis use disorder in that age group. There is clear evidence that decriminalization and legalization decreases perception of harm and increases use and substance use disorder. It is unethical not to mention that. It is not just the interaction with mental health that is the issue.

We will see increased treatment needs and cases so that must be part of consideration. A lot of the research on the development of substance use disorder has a youth focus (under age 18), but there is some evidence that there is an increased risk of substance use disorder when first use is up to the age of 21. That includes exposure to cannabis, similar to alcohol.

Ms. Kelley questions whether Virginia is prepared to handle an increase in the behavioral health system needs. (The group noted that the system is already insufficient.) This would be adding stress on a system that is already not adequate to handle the needs, and that is an important piece that needs to be addressed

Dr. Thompson: Addiction is already under-treated, and legalization will increase the demand for treatment services. If we are rational people, we need to anticipate the need and tie support of addiction education and treatment to this proposal.

Ms. Alamiri: It is important to have education and warnings at the point of sale. However, for true prevention and early intervention, that it is almost too late. We need more investment in identifying and addressing the root causes, which include mental health concerns, Adverse Childhood Experiences (ACEs), using a more trauma-informed approach, and looking at the holistic picture. We should use taxes gained from sales to invest in holistic prevention, which means more investments in mental health resources, care and support that is affordable and accessible to all, investment in community services boards (CSBs) across the state, putting more resources in schools to address youth impacts, and also investing in treatment.

What else can we advocate for other than investment of those tax dollars?

Dr. Thompson: Everything he can think of re: education and treatment ultimately costs money. Of course, supporting the ARTS program and specific components of the ARTS program would be a good target for tax dollars, as well as making sure its expansion is permanent, because that has opened it up to so many vulnerable individuals. In addition:

- Support for the identifying substance use disorder (SUD) sooner and the institutions that support professionals, e.g. training, education, and support on how to identify and connect to treatment. That is a great void.
- Awareness campaigns and expansion of training campaigns, which are still mostly research projects at the universities (VCU brief intervention for example)
- Most research on the effects of the prevalence of SUD suggest that prevention and education campaign efforts are effective, but only modestly so. The greatest impact is availability and quality of treatment. It is only responsible to say that there are health risks, and one in particular is SUD, and SUD is a treatable disease. As such, the state should support expansion of treatment,

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or at a minimum maintain access to SUD through ARTS and through CSBs, many of whom don't even have Medicaid.

- There are many worthy organizations that have efforts underway to support education not only for kids but also for counselors, etc that need to learn to identify and intervene with developing substance use disorder. Folks at VCU are doing that in primary care and dentistry. So they are our there, but their biggest problem is lack of funding.

Ms. Alamiri added that education is only part of prevention. True prevention lies in identifying the causes that lead to SUD, investment in mental health supports, coalition capacity, investment in diversion programs, social and economic opportunities for those who were previously incarcerated due to cannabis related charges or have been involved in the system, so they don't fall into the same cycle. If there is any way to recommend policy changes or infrastructure that would support the more holistic picture of social, economic, and mental health resources – all of which will increase risk of initiation and use – that is what we should recommend.

Dr. Thompson – In terms of those who are corrections-involved, there are some budding programs that help people seek out or begin the process of treatment while incarcerated, in order to prevent recidivism. It seems just to support people who have suffered from SUD and have been incarcerated for SUD-related crimes. A lot of those programs include investment in treatment, which can include counseling, dealing with trauma, connecting with employment and education opportunities as a part of their treatment program. For example, Henrico County and Chesterfield County excellent programs – programs like that would be excellent targets for support.

Ms. Alamiri said this subcommittee has touched on education before, especially consumer education at point of sale and on products. She would like to add public health campaigns around the risk and harms of youth use, pregnant and breastfeeding individuals, and impaired driving prevention.

In previous meetings, we have also talked about what does responsible adult use look like in this new landscape? What can we recommend as points of education?

- **Mx. Pedini** shared in the chat (below) the NORML adopted principles of responsible use from 1996 which includes adult only, not around children, no machinery operation, careful consideration around setting, resisting abuse, and respecting the rights of others.
- **Ms. Martinsen**: We should make sure we take into account seniors, especially when it comes to potency because today's marijuana is not the same as what they may have used in the 60's.

Asst. Sec. Finley: What about budtender training and, in terms of responsible use, indoor clean air policies?

- **Mx. Pedini** agree we should require retail associate training just as we require training and education for medical providers.
- **Ms. Abebe**: We do allow cigar lounges and she thinks that is the most relevant policy analog, especially for smokable formats.
 - Open question about whether tobacco vaporizing violates clean air policy in Virginia? She thinks most of those are discrete, odorless and nowhere near level of release that cigarettes have.
 - Social consumption space are important to consider. Marijuana use contributes to eviction and housing policy; if you live in federal housing you cannot have products inside own home. There should be a safe place to consume without risking eviction.

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There are merits to outside space, but could be hard to mitigate odor and easy to blow smoke into other businesses and the community.

- **Mx. Pedini** noted that we allow hookah lounges and should look to those regulations.
- **Dr. Thompson:** For vapor devices, indoor clean air laws differ state-by-state and a lot of states do include them. Even though he agrees that the evidence of harms and nuisance is lower with vapor-based devices, he thinks most states do not allow their use indoors. He can't tease out whether Virginia statute includes electronic or vapor-based devices. He agrees we should be consistent with tobacco and marijuana products.

Asst. Sec. Finley noted that there a number of aspects of inequity, and in HHR we talk a lot about health inequities. The previous presentation brought up the idea of density caps as a way to counter against zoning or other factors that “push” a large amount of dispensaries, potentially low-income neighborhoods. Are we concerned that concentration could exacerbate existing health inequities? Do we have thoughts on density caps or other mechanisms to control the number of dispensaries in low-income or disadvantaged neighborhoods from a public health perspective?

- **Ms. Abebe** – There are a lot of examples in other states of having a radius around a dispensary; DC has that in addition to ward-based restrictions for medical locations. In this context, we are talking about how to avoid a concentration in low-income areas due to zoning requirement. Depending on how rules are made, we know it is higher income neighborhoods that rally around pushing dispensaries out and also results in them being in low-income neighborhoods. It is not just zoning, so we need to think about who is going to be equipped to navigate the rules and why dispensaries end up in certain areas and not others. Funding, resources, and time are factors. We should make sure any structure does not work against what we are trying to prevent. Having said that, if there are zoning requirements they should have consistent standards that don't allow zoning to be punitively used against businesses. This issue also impacts social equity licenses – individuals with less resources should still be able to have zoning be responsive to them and allow them to pursue businesses.
- **Ms. Alamiri** agrees with all those points. If these opportunities are made available, they should be made available to everyone. Re: federal housing – she also noted we need to make sure law enforcement mechanisms do not continue to be disproportionate. Is there a way to monitor where patrolling and disproportionate arrests of black males are happening? That increases mental health issues and other risk factors for substance use disorder. We need to pay attention to the full picture.
- **Ms. Abebe:** It cost \$100M per year enforcing prohibition before decriminalization. How can we use those savings to support healthy communities.
- **Ms. Alamiri:** How can we reinvest in marginalized communities, including the desire to invest in treatment that was discussed earlier.
- **Ms. Abebe:** There are interesting models, especially Illinois reinvestment models, that issue grants to communities within a broadly defined reinvestment slate e.g. mental health, food desserts, and gun violence e.g. secondary and tertiary effects of prohibition. Some use participatory budgeting for overlooked communities.
- **Mr. Carter:** We need to listen to those communities, since they all have different needs and we should not make assumptions about those communities (urban, rural, suburban). We should also be using minority institutions and banks to support that process of listening and providing adequate resources, as opposed to just policy makers. Community members should be able to benefit from the industry and not just be victims or consumers of it.

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- **Ms Alamiri** agrees we should build coalition capacity, invest in local advocacy groups, invite community members to focus groups and make sure they have a seat at the table so there are community-based solutions. That leads to more sustainable and thoughtful solutions.
- **Mr. Carter:** One of the challenges that other states have had is to really try to focus on economic and social equity with programming, and let them be the first out of the gate a year or two in advance to be able to build their capacity for these kinds of institutions. Otherwise it is not equitable, because we do not have the experience, capital, or endurance and patience in terms of being able to take losses for longer periods.
- **Dep. Sec. Copenhaver:** We definitely want to talk about that. The plan to have a joint subgroup of fiscal and structural/legal and regulatory subgroups to hear from the Minority Cannabis Business Association, and hopefully come out with some concrete policy thoughts.

Ms. Alamiri: What has not been addressed yet in terms of health impacts? This is the best time to set forth any policy proposals we want to put forward as a group. Are there best practices from medical processor model that we can use to inform our approach?

Ms. Kelley: It needs to be well-planned out before the “go” date. For the pharmaceutical processors, we had intended for them to be up and running within a year and what everyone found is that a lot hinged on construction. Timelines are critical, and looking at what infrastructure needs to be in place. The medical cannabis program has been impacted by changing legislation so they are always turning on a dime and implementing new regulations. Part of that is normal for development and change, but even moreso looking at adult use we have to be cautious, plan, and make sure that we have ducks in a row before we put it into place.

Dr. Thompson – The substance abuse issue is critical. A JAMA Psychiatry study at the end of last year looked at the increase of problem cannabis use (prevalence) after legalization - 25% among youth, 17% adults among problematic use including mild, moderate and severe SUD. Cannabis addiction is most impactful health issue following legalization - the most expensive and greatest overall impact on health - greater than accident issues and possibly than psychiatric complications (other than SUD). So, we really have to tie legalization and associated taxation and state interest to treatment. Prevention is important as well, but a SAMHSA meta-study did a cost-benefit analysis of SUD rate and excellent prevention programs were thought to contribute about 11-12% in reduction in CUD, where treatment is by far the most effective approach when it comes to addiction issues. Although it is true that addiction is a complicated disease, the biggest factor is genetics, so while he supports all the great ideas to support communities affected by old harms, mental health, social justice, he thinks it is drifting too far from the critical point that SUD will increase with legalization so the state has a duty to address that.

- In response to a question from Mr. Carter to get more insight on genetic contribution to SUD, Dr. Thompson said that genetics accounts for between 45-60% of the likelihood of developing SUD. Other factors include co-occurring mental health, past trauma, whether or not drugs were around when person was young, age of first use, and brain injury. What we see consistently over time is that about 9% have a problem with substances and others don't, so with cannabis most will use it and have no problems and maybe benefits. However, there will be a significant percentage that do develop problem use. Increased availability leads to increased use, and therefore more people at-risk for SUD.

Asst. Sec. Finley to Dr. Thompson: You are saying that the biggest way to make a difference in SUD is to invest in treatment, and the entire continuum of services including prevention, recovery, and treatment, and that is definitely the primary way. Is there anything else you are seeing in your practice in terms of

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regulations and incentives? In other words, what do you see in your practice, other than funding prevention, recovery, treatment, where the state has put things in place that helps the people you are seeing are helps folks not fall into addiction that might have otherwise?

- **Dr. Thompson:** There is no solid answer. It is really general support for availability of treatment, education of the consumer and those who care for them (schools, employers) to understand what is effective, prevention of exposure to youth, etc. Early onset of use (e.g. teens) greatly increase the risk of SUD and that is very clear. Beyond that, nothing to really hang onto, so he just has to reiterate that addiction is a serious disease and CUD is real even though cannabis is safer than just about all the other diseases we run into in treatment. Addiction is real and we will see an increase, so it is only right that we invest in treatment because treatment works.

Ms. Abebe: Addiction is much broader than cannabis and we are seeing it in so many areas. The brain has a propensity for pleasure and we are seeing it with everything from video games to social media.

- Re: the JAMA study he cited: For 12-17 year olds, use increased in raw terms from 2.18% to 2.72%, so while that is 25% increase as compared to states that did not enact recreational cannabis laws, it is still less than .6% in an absolute increase. We want to be at 0%, but she thinks it is also important to look at the absolute number. It is also hard to identify baselines.
- When cannabis becomes legal, it also removes stigma. We see that play out in the medical environment, because folks are afraid their doctors will judge them and it will impact their medical care. How does that culture make it easier for folks to get help for CUD? So that is a confounding variable.
- Public health impacts of prohibition persist. CUD is already in the state, it is just in the shadows. Up until decriminalization, if found with marijuana, the default was criminalization not treatment, unless you could afford rehab.
- She agrees with him but wants to make sure it is put into the broader picture. This is a good opportunity to elevate, talk about addiction, address root causes including mental health needs.
- To Ms. Kelley's point, you cannot just magically grow enough to address demand by flipping the switch, so the timelines and sequencing are important. However, whatever happens it also needs to be flexible and innovative, e.g. allow for a faster regulatory processes than usual to have flexibility as implementation rolls out and folks realize unforeseen challenges. Having a broad regulatory body is important there.

Ms. Kelley: When it comes to health policy, it is important to remember that this is not a "fix for all that ails us" on the adult use side or the medical side. While there is some research that shows the medical benefit, there is still miles to go.

- She struggles with folks who think this is a magical cure and they are hearing it from their physicians. We should not always be looking at negatives and positives but should be equitable. We have mental health, SUD, social equity, legal issues that we all want to see addressed and fixed if we can. But her fear is that we look at this as a be-all, end-all, and we should not put forth a position that says that on the social equity or the health side. It needs to be well thought out. She came into medical side 18 months ago and there are things she probably would have recommended differently in hindsight. She does not want Virginia to stand up a program that hasn't addressed some of the issues that have been raised on all of the subcommittees that will put us in a worse position. Let's now put ourselves in a box that we have trouble getting out of.
- **Ms. Pedini** noted that is why they drafted legislation to convene these workgroups and the JLARC study well in advance of promulgating the legislation and regulations - to build consensus

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and hear stakeholder comment. She thinks it is thoughtful, comprehensive approach that the state is taking.

Dr. Thompson: He and his organization, the American Society for Addiction Medicine (ASAM), have no position on whether or not we legalize in Virginia. He is not taking a stand on should or shouldn't legalize, just point out the health risks. In reference to Ms. Abebe's earlier comment, 0.7% is not a lot, but if you take the Virginia population it is tens of thousands of folks.

- **Mx. Pedini** agrees that we need to be accurate. As Annette said, it is not a solution for all that ill the Commonwealth or any state. We will do the best we can with this legislation to hopefully undo the greatest damages done by current system. There will be a lot of hands out for funding and we should be thoughtful. The biggest lens now is equity, so that will take center stage in our discussion.

Asst. Sec. Finley said that the next meeting will include a brief presentation from Natalie Hartenbaum from the American College of Occupational and Environmental Medicine re: workplace concerns (Dr. Caughron's earlier suggestion.) She will also try to type up conclusions so we can further discuss what we will present as a group. The next meeting of the health impacts subgroup is 10/20 from 11-1, and then the final full group is on 10/28.

Secretary Moran suggested a briefing from DHP on Medical Cannabis Program re: lessons learned, especially following Annette's comment, to help inform us.

- **Dep. Sec. Copenhaver:** They are presenting tomorrow at the Fiscal and Structural Subgroup tomorrow at 1pm. He agrees and it has been brought up by many workgroup members that we do have a medical cannabis program and we really need to look to that.

Public Comment

Lisa Davis from Cardinal Quality Labs, 3 points:

- She recommends tamper-evident in addition to child proof.
- She seconds the recommendation for investing in research re: impacts and impairments.
- She would like the group to consider a discussion on impaired driving and how that will be legislated in the state. A lot of states have used per se limits, but that is not necessarily indicative of impairment. The drug recognition expert program in Virginia has lapsed and needs support to evaluate roadside driving impairment.

Dep. Sec. Copenhaver noted that the legal and regulatory subgroup has considered that issue and is gathering some data from DMV for us to hopefully share in the near future.

Chat Box

<https://norml.org/principles/>

The meeting adjourned at 12:58pm.

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Health Impacts Subgroup—Meeting Four Minutes
October 20, 2020
Virtual Meeting via Webex
https://www.youtube.com/watch?v=Bfv3yw3_ptc

Meeting Attendees

Asst. Sec. of Health and Human Resources Catie Finley, on behalf of Sec. Daniel Carey
Dep. Sec of Agriculture and Forestry Brad Copenhaver, on behalf of Sec. Bettina Ring
Jenn Michelle Pedini, Executive Director, Virginia NORML
Ngiste Abebe, Director of Public Policy, Columbia Care
Nour Alamiri, Chair of the Community Coalitions of Virginia (CCOVA)
Annette Kelley, Deputy Executive Director of the Board of Pharmacy, Virginia Department of Health Professions
Michael Carter, VSU Small Farm Outreach Program and 11th generation farmer
James Hutchings, Toxicology Program Manager at Virginia Department of Forensic Science
Nicky Zamostny, Deputy Secretary of Public Safety and Homeland Security
Secretary Moran, Secretary of Public Safety and Homeland Security (joined for part)
Heather Martinsen, Virginia Association of Community Services Boards
Nate Green, Virginia Association of Commonwealth's Attorneys
Dr. Sam Caughron, Charlottesville Wellness Center Family Practice

Assistant Secretary Catie Finley called the meeting to order at 11:00 am.

Brad Copenhaver did an attendance roll call.

Asst. Sec. Finley did a roll call vote to approve the minutes from the last subgroup meeting October 14, 2020.

Natalie Hartenbaum, M.D., President at CEO at Occumedix began presentation.

Natalie is an occupational medical therapist, past president of the American College of Occupational and Environmental Medicine (ACOEM) and current chair of its Marijuana Task Force. Her remarks today are not on behalf of ACOEM.

She reviewed key issues related to cannabis use and employment issues including:

- Employee/employer protections
 - Medical and recreational use changes what is permitted. When we look at medical, there disability issues that need to be considered. How do you define what is acceptable? For recreational, only one state and one city have really limited what employers can do when it comes to recreational. Medical falls under disability umbrella, so you have to say what is a reasonable accommodation and provide employee protections.
- On duty/off duty
 - This is challenging because unlike many other substances, you don't know the duration of impact.

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- Safety sensitive positions
 - Some states let the companies define safety sensitivity, which means impairment for any reason will lead to significant safety and environmental concerns. Some states have defined, some have given broad categories then left to employer, and some have left solely to employer. Some state have set parameters around what you can do (e.g. drug testing) in those positions.
- Workers compensation
 - As she said earlier, marijuana is so different than other substances. With alcohol, we know the onset of action, how long it is in the system. We know how to measure the amount of alcohol in the system, and can extrapolate that back to determine when and how much was consumed. This is not the case with cannabinoids because there are hundreds of different compounds.
 - There is a challenge at the Department of Transportation (DOT) right now, because current federal drug testing laws allows for testing of THC-9, but not every single cannabinoid. THC-8 is included in some products and is not being picked up, even though it is intoxicating. A number of things, including how you consumed marijuana, can impact how long it is in the system and how quickly the impact it and how it is measured.
 - For workers compensation – what is covered can be controversial. Depending on the literature you read, there are certainly some conditions where medical cannabis is helpful. For many of those conditions, you don't want that individual performing certain tasks in the workplace anyways because the condition itself may also be impairing. Has cannabis been shown to be effective for pain and, if so, what dose is appropriate and how often should it be used? If it needs to be used for a medical condition, do they need to use it on duty?
- Conflict with federal law (DFWP/DOT) -- Federal drug-free workplace program requires a drug-free workplace for entities receiving federal grants, but does not require drug testing.
 - On the other hand, DOT does require drug testing and does include marijuana as one of the 5 tested substances. There are a number of trucking companies who are also doing hair testing, which is not required in federal law at this time. What if the operator tests positive under hair test (which can be problematic) under state law but positive on a urine drug test?
- Impairment – This can be difficult to measure, since blood levels do not necessarily correlate with impairment. There are no specific dosing intervals or components in marijuana. Even cannabidiol oil can be THC free or, depending on the state, can have a significant amount of THC. So again, you can't just set an hour limit after consumption and assume they are no longer impaired.
- Drug testing
 - Not all cannabinoids are picked up in drug testing mechanisms that are currently used.
 - Just pre-employment? Random? What kind of testing? Urine is usually short window, but not for marijuana.
- Per se levels -- Blood and plasma levels do not necessarily correlate with impairment and are subjective.
- Duration of effect -- Difficult to know because every product is different.

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- CBD – “Kind of” legal at the federal level. Legal if grown, prepared, cultivated and sold consistent with federal law – can’t have more than .3% by weight of THC, can’t promote health benefits, can’t be added to food currently.
 - Some states have permitted a higher percentage of THC in their CBD, which is then is challenging because low-THC products can add up and don’t know how much active ingredient in one teaspoon, etc.

Bottom line: There is so much we don’t know and don’t have the info to figure it out at this time.

She showed a list of states with employee protections and discussed key similarities and differences:

<https://www.ncsl.org/research/labor-and-employment/cannabis-employment-law.aspx>.

- Illinois says employers can adopt reasonable drug testing policies and defines specific way to identify impairment (e.g. symptoms that lessen performance of duty).
- Employer protections give parameters, but it is important to not overly limit them because they have a significant amount of responsibility to have a safe and healthy workplace.
- Prohibiting use at work – almost all states, regardless of whether state has employee protections.
- Prohibit being impaired at work – problem is that measuring that is almost impossible. After an accident is too late; employee also may not be impaired at the beginning of the day when they are first tested. One reason for drug testing under federal law is deterrence.
- Differ on testing/action for positive test
 - Must consider pre-employment, hair testing, medical cards that have expired, etc. Can the employer take action immediately on the test? What if they have medical marijuana card? Is it based on an accident or reasonable suspicion?
 - Hair detection picks up THC much longer after consumption.
- Differ on off-duty use (including for safety sensitive)
- Differ on possession at workplace – almost all agree they can’t have products or paraphernalia at workplace, but can it be in their car?
- Differ on accommodation
 - Some laws re: definition of reasonable accommodation working their way through courts now, but there is no established right answer.
 - Important to remember that employers have a responsibility to ensure safety for all employees
- Differ on whether and how safety sensitive is defined
- Differ on measurement of impairment – generally slurring words, making mistake OR clearly under influence (e.g. dilated pupils, can’t walk, test positive)

Bottom line: Impairment more broadly has been looked at for years and there is no right answer.

Tools to measure impairment:

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- Police training, since advanced roadside impairment detection tools not always accurate in every state.
- Oral fluid appears to be reasonable.
- Breath not ready for prime time.
- Alert O-meter, Get BlueSky, etc., which has folks do tasks and measures against individual baseline, but not always look at marijuana (just impairment generally).
 - This gets back to use of testing for both measurement and deterrence. We don't want folks using certain drugs at work if they are impairing.
- Right now, she thinks it has to be up to the employer. We are not saying employers can't test for high-dose morphine and other legal substances that can be impairing, so we don't want to treat marijuana differently just because it has some medicinal benefits. The employer should be able to say that you can't use a reasonable time before coming to work, because of the risk of impairment.
- Oral fluids good breath is better, don't have that method yet. Blood is difficult depending on what they are testing. Urine is bad and hair is a mess. Some truck drivers do use hair testing, recognizing that is can recognize THC long after impairment, so it is used as deterrence but folks get a second chance if test positive.

She reviewed states with marijuana-impaired driving laws, and noted that evaluating impairment is still a major challenge, including whether they're measuring the presence of a cannabinoid or impairment, looking at saliva vs. breath, etc.

- THC concentration goes down while an individual may remain impaired (see slide).
- Detecting impairment varies by the method -- breath seems to work better than an oral fluid.

Summary:

- Every strain of cannabis is not the same. Edibles have to go through the liver first. (see slide for list of variables). A number of organizations, including ACOEM, have been trying to encourage Congress to remember that it is an impairing substance and we don't know how to measure impairment.
- Safety sensitive positions are the most important. Health and safety should not be jeopardized regardless of the reason for impairment.
- We don't currently have validated tools that will hold up in courts or identify impairment before it is too late.
- We know there is a relationship between blood THC and impairment, we just don't know what that is.
- Safety sensitive definition should be left to the employer, thought it is fine to give parameters and basic definitions. ACOEM tried to identify some of those.
- Given lack of research, currently no level of cannabis is safe in those safety sensitive positions in workplace environments.

Dr. Caughron: Is there any research on products that could reverse the effects of marijuana in the human body?

- She is not aware of anything like that (e.g. naloxone for opioids.)
- Again, we don't know what happens and what is in any given joint.

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Dr. Caughron: At some point we have to make a legal decision without perfect data. What other states have been doing well?

- Ms. Hartenbaum: Oklahoma (Unity Act) and Illinois have done a good job.
- Most important thing is to keep in mind that safety sensitive positions are different. If you cannot use an impairing medication because of your job – this should not be any different. Beyond that it comes down to performance, and the employer has a reasonable right to expect a person to do their job with or without a reasonable accommodation. It also depends on why they are using in first place (e.g. need it medically.) A lot of this is also education and learning.

Dr. James Thompson: Are state determinations regarding impairment meaningful?

- Ms. Hartenbaum: Depends on how the product was consumed, and impairment is not always measured by presence of THC. The person's blood level may go down when they are still impaired. It also depends on whether measuring metabolite or compound.
- Edibles take longer to kick in, and folks sometimes take two and they kick in all at once
- Breath tests are probably the best but they aren't available yet. Best now is oral fluid, but how is that practical in the workplace.
- We do test of oxycodone, codine, etc., partially as a deterrent in federal drug testing program (and those are legal).
- It is appropriate to use in certain circumstances, e.g. if marijuana comes up in pre-employment test, she recommends giving them a second change later in time, especially if it is legal in that location.
- Medical also different - does it get them to be able to do their job safely or does it impair them. Chronic pain patients cannot do every job because maybe impaired by narcotics. We aren't looking at marijuana as a "bad drug," more recognizing it is impairing (effects judgment and performance) and that we don't have tools to say if you smoke this a certain amount of hours before it does or does not affect muscle spasticity, fatigue, etc.

Ms. Finley: Is there a common way that this is handled for healthcare providers and teachers?

- Ms. Hartenbaum: For example, NYC prohibits pre-employment marijuana testing except for safety-sensitive positions. They prohibit it with the exception of policy officers, investigators, folks covered by building codes, positions requiring a commercial drug license, positions involving supervising or caring for children, supervising medical patients, supervising vulnerable populations, active construction site, heavy machinery, operate a motor vehicle, airplane inspection, etc. So those give an idea of things that may allow drug testing.
- It comes down to whether you are putting other individuals and environment at risk, and broad definitions of what are inclusive in safety sensitive positions would be helpful.

Asst. Sec. Finley reviewed Dr. Thompson's point from the last meeting that cannabis disorder is a disease, there's evidence that legalization can lead to an increase in this disease, and that treatment is necessary. Dr. Thompson then shared a presentation around addiction.

Dr. Thompson (also see slides):

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- Toxicity is not necessarily key, as it can be fairly low for cannabis as compared to other substances. It is about a brain disorder that can be fairly unpredictable in people who engage in any kind of substance use.
- Genetics are the strongest predictor.
- A 2019 study looked at changes in use and substance use disorder in states where recreational use was legalized. It found a small increase in cannabis use disorder among youth, though use did not go up significantly. It also found that frequent users among adults increased.
- It is important to find evidence-based prevention programs, because not all prevention programs work.
- Treatment is critical, and only about 10% who meet the criteria for substance use disorder get treatment nationwide.
- Addiction is primary illness, not a symptom of any other illness (not a maladaptive way of coping with stress) and must be treated as such. ASAM definition on slides.
- Historic prevalence of SUD, including Cannabis Use Disorder (CUD), is about 8.5% of Americans.
- Since genetics is the strongest contributor, we can't simply address SUD by mitigating contributing factors. It must be treated.
 - One contributing factor that can be mitigated is use, so that is why prevention is important.
 - Not really danger of cannabis use specifically but more that those who use it will experience a reordering of their priorities and ability to control use
- JAMA study November 2019 (see slide) compared legalized states to non-legalized states and found:
 - Prevalence of CUD among teens was higher (2.13%, increased to 2.72%, 2008-2016). That would be about 11,000 Virginia teens with CUD over 8 years.
 - While the disorder went up, frequency of use did not go up.
- Frequent use among adults went up about .5%, so about 30,000 adults in Virginia population. (Increase in incidence was about .3%, so not as significant.)
- The American Society of Addiction Medicine (ASAM) is not for or against legalization, but instead say need to look at the potential problems and find ways to mitigate them.
- He has learned a lot about the safety and prevention/education, but wanted to provide context from his field about the relative benefit of prevention compared to treatment. Both are important and ASAM's mission includes prevention, research and treatment, but it is interesting to see cost-benefit treatment vs. prevention:
- A SAMHSA meta-study showed that prevention efforts directed at youth have the biggest return on investment, with 4% of youth delaying (about 2 years) or never using cannabis. It found a total reduction of about 11.5% present users, so definitely worth it.
 - While return on investment is hard to measure, he saw a study that showed a \$1:\$30 ROI for prevention.
 - Prevention needs to be evidence-based to be fully effective.
- Only 10% of those who meet criteria for SUD get treatment nationwide, even though the disease is almost as prevalent as diabetes.
- This work group has talked a lot about social justice and SUD/CUD treatment dramatically reduces the rates of recidivism. Justice Bureau statistics show about 55%

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prevalence of SUD, so a lot of crime that leads people to incarceration, whether it is possession or distribution, is driven by SUD.

Dr. Caughron: With the genetic issue as a predominant driver, if don't seek marijuana they will seek something else. Can we work prevention and treatment into the legalization law, instead of being separate from it? CUD will not be the one to worry about.

- Dr. Thompson: Oregon Measure 110 built in laws and penalties for drug related issues. It reorders the level of misdemeanor for possession and then attached an SUD assessment to any person arrested for a drug related issue as part of the law change. He thought that was helpful and interesting.

Dr. Caughron is concerned about youth taking drugs and criminalizing this. He would like to see that mitigated in the structure of the law.

- Dr. Thompson: Agreed, an important message is that substance use-related problems are more of a sign of illness than a law-breaking nature. Referral to assessment and treatment is the right reaction to youth using drugs.

Asst. Sec. Finley reviewed draft subgroup recommendations.

- First, discussed the need for collecting baseline data to help understand potential impact.
 - Mr. Moran: Can we define what impact, data we're trying to collect and from whom?
- Consumer education regarding responsible use is critical.
 - Mx. Pedini: Clarify medical cannabis (marijuana is used explicitly in criminal code).
 - Ms. Abebe: Thinking about standardized packaging, help consumers identify have a QR codes to help consumers know they are at a legal cannabis operation.
 - Ms. Alamiri: For products that are multi-use, making sure there's child-resistant packaging.
- Use of high potency products make individuals more susceptible to abuse such as cannabis use disorder.
 - Asst Sec. Finley summarized Nevada model, which limits per package and per sale. Her understanding from Americans for Safe Access is that is a pretty common way of approaching THC limits.
 - Dr. Caughron: Recognize there are other THC components e.g. THC-8 and THC-9.
 - Ms. Abebe: High concentration does not necessarily mean high consumption. For example, vape cartridge might have 90% THC but it is supposed to be for hundreds of doses over a significant period of time. (for example, vaping products). Topline statement does not reflect the nuance of how use disorders correlate with concentration, so perhaps "clear understanding of THC amounts is critical for responsible consumption" and "looking at the per-dose, per-serving, per-sale are the best way to go." Potency caps are based on "worst case" headlines. People use products differently so THC caps are subjective.
 - Mx. Pedini: Agreed, need to speak to identifying and clearly labeling products and serving sizes.
 - Dr. Thompson: I understand what Ngiste is saying and also what Asst. Sec. Finley may be trying to get at. It is true that generally with drugs of abuse high potency

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- dosing does increase risk of development of substance use disorder. Maybe can clarify to focus on potency of dosing as opposed to the product the person would buy.
- Asst. Sec. Finley: Does the first bullet get at it? Focusing on per-dose, per-serving THC limits in addition to standard per sale limits.
 - Ms. Abebe: It is important to be specific with formats, since it is much easier to establish per serving limit for something like an edible. For the consumer, it is most important to be specific about what you are experiencing and when you will expect onset (e.g. fast-acting tinctures absorbed through capillaries or smokable flower much faster vs. edibles which have to go through the digestive system.) She has not seen per dose or per serving applied to those types of concentrates or flower, but instead to edibles.
 - When we talk about sub-lingual tinctures, you can still require clearly marked measurements so you know how much to take per amount. We should focus on what is implementable for businesses and useful for consumers. A per serving THC limit does not translate well to inhalable products. She is also not sure how it would be done with tinctures, because the dose is so small it would be hard to package into a serving size.
 - Ms. Alamiri: The modes of use dictate packaging. Something that was mentioned earlier is the single-serving packaging helps avoid child emergency room visits based on accidental consumption. Instituting a dispensing limit for certain products, instead of all products, may be an approach.
 - Ms. Abebe: Most places have a translation limits that tracks with a certain ounces of flower and then and translates that to milligrams per THC for an edible or tincture format.
- Cannabis use disorder is real, and legalization will increase and change the demand for substance use disorder treatment.
 - Prevention and education is critical.
 - Dr. Thompson: Hard to know who is predisposed, so consider making everyone aware of the possibility of developing SUD. In treatment, they often confront folks who think they are as immune to the disease, which is not the case.
 - Ms. Abebe: We need a mechanism to update information while research is still emerging. For example, we know there an interaction between THC and bipolar disorder, but don't have the full mechanism of what that is or how to manage or treat that. For public health campaigns, the timeline for the review and update needs to be faster than for things like alcohol, where we have a pretty good idea of the science behind alcohol impairments. Education needs to be grounded in science with regular review built into it.
 - Ms. Abebe: Do treatment needs change after legalization because reduce stigma and reduce risk of incarceration for folks with CUD? Public outreach should include efforts to reduce the stigma around seeking behavioral health resources. It would be transformative if we could also use this as a moment to focus on our behavioral health system and how we provide and connect folks to resources and, since we are talking about social inequities and stigma, around removing barriers to access and bolstering our current system.
 - Ms. Alamiri: We need to make sure those mental health supports are both accessible and affordable, which includes CSB funding.

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Re: the bullet point on diversion program, based on what Dr. Thompson mentioned on rates of recidivism, we need to make sure there are comprehensive re-entry programs.

- Age-appropriate marijuana education, investment in support for individuals 21-26.
 - Ms. Abebe: Difficult to prohibit products been seen by youth, also think through packaging and not making it attractive to youth.
 - Ms. Alamiri: Could add something about distance from schools, etc. to advertising piece.
- Reform should address and “undo” harms of criminalization when possible, including diversion initiatives, monitoring police activity data, etc.
 - Ms. Abebe: Also important to not increase risk of eviction, possibly by having safe consumption areas.
- Lack of consensus on much of the marijuana research, need to invest in additional research.
- Youth use prevention:
 - Ms. Finley will add investing in support with that target population in mind for sub-bullet 21-26
 - Ms Abebe: On marketing to youth piece: 1) Prohibit is hard, because can’t guarantee no youth eyeballs will see it. We should use the normal standard of 70% adult audience reasonably expected. 2) Advertising goes beyond packaging and is also billboards, social media, etc. It is also not using cartoons, making it look like candy, or using the leaf in certain marketing formats to make products attractive to youth.
 - Ms. Alamiri: Think in Gillian presentation, some states have prohibited advertising within 1,000 feet of child or community related locations. So we should put distance limit on advertising near community centers or schools.
- Maintain Virginia's Indoor Clean Air Policy.
 - Ms. Alamiri: Maybe identify limit of physical distance from a building like is done with tobacco.
 - Ms. Alamiri: There should also be policies requiring signage for designated areas where people can use. For example, on college campuses and in schools she has seen updated signage that includes vaping. So signage should clearly identify where and what you can use.
- Asst. Sec. Finley read bullet point on the lack of consensus on data and research, and corresponding recommendation to invest in data collection and research.
- Mx. Pedini: The seed-to-sale bullet point should move under the consumer safety section.

Dep. Sec. Copenhaver opened for public comment.

Mary Crozier: As professional in SUD prevention, education, and treatment, we need time to develop an infrastructure for public health. This is being discussed when we have budget constraints, and there needs to be more money to address risk factors, poisonings, and other issues. Thinks we need to prolong this if we allow it at all.

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Elly Tucker: Currently a medical cannabis patient in Virginia, thinks this workgroup is essential. Suffers from anxiety, and finding relief this way has been essential. As a senior citizen, some of the packaging may be difficult with arthritic hands, and important to keep this in mind.

Paul McClean: Had conversation with retail operator in California about a bring your own cannabis business model becoming more popular. In Virginia, we have cigar humidors, and curious if this type of model for cannabis whether outdoor or indoor?

Regina Whitsett: Executive Director for a SUD organization in Virginia. Agreed with idea about QR code label on products to ensure it's from a licensed dispensary. Also, regarding density capping, important to have an opt-out clause for localities to opt-out of businesses coming to locality. Also important is a no use in public clause to prevent second-hand smoke. Regarding IDs, important to confirm age at dispensaries. Also THC caps are important due to high potency doses that could be impacting people's health.

Kristi Norton: Uses medical program, has suffered from anxiety, nausea, depression, etc. This has been the only thing to help and fully supports legalization.

Asst. Sec. Finley wrapped up the meeting, thanked participants.

The meeting adjourned at 12:59 pm.

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Joint Subgroup on Equity—Meeting Minutes

October 20, 2020

Virtual Meeting via Webex

https://www.youtube.com/watch?v=IFcQ-R_JnSo

Meeting Attendees:

Secretary of Public Safety and Homeland Security Brian Moran

Commissioner Jewel Bronaugh (VDACS)

Michael Carter, Jr. (VSU Small Farm Outreach Program and farmer)

Jenn Michelle Pedini (Virginia NORML)

Kristin Collins (Tax Department)

Ngiste Abebe (Columbia Care)

Nate Green (Va. Assn of Commonwealth's Attorneys)

Annette Kelley (BOP), on behalf of Caroline Juran

Colby Ferguson (DMV), on behalf of Commissioner Richard Holcomb

Travis Hill (ABC)

Linda Jackson (DFS)

Richard Boyd (VSP)

John Welch (VSP)

Staff:

Deputy Secretary of Agriculture and Forestry Brad Copenhaver

Guest Speaker: Toi Hutchinson, Illinois Cannabis Regulation Oversight Officer

Toi Hutchinson spoke on the successes and emerging lessons learned in facilitating an equity centric transition to adult use cannabis in Illinois.

There is a lot of interest in Illinois. Still in the process of trying to get it all done. Right after licensure is the fight that happens right after licensure. We've seen those fights play out without equity principles built in and because Illinois has equity built in the response can feel a little more visceral.

Toi noted the last time she was in Virginia was for 400 anniversary for the first legislative session in Jamestown while she was president NCSL.

In 2016 they started with decriminalization and before that they had a small, narrowly drawn medical pilot where they were fingerprinting patients. At that time the cannabis conversation was from a standpoint of this is all illegal. That's how we talked about it and people who used it.

In 2020 it is now the policy of the state that you cannot normalize and legalize an activity for whom the prohibition of the same activity destroyed whole communities and generations. That is fundamental of what we do. Usage is the same across demographics.

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When Toi hears people talk about the cannabis industry's bright future from a business perspective—even though it's in a “green space” where it's still illegal federally—she always points out there are people legally making millions and billions of dollars (Illinois tapped 100 million in only 8 months of legalization) while 800,000 people are arrested every year across the country, even in legal states.

When you understand that and embed that in what you try to do, it makes the hard questions palatable. She describes it as knowing what your ‘why’ is. She describes hers in three prongs:

Equity – Taking the population that was harmed the most and trying to make that population whole

Diversity & Inclusion –We want the participants to look like the community

The cannabis industry globally is a majority rich white males. Usage is the same across demographics but only Black and brown communities have been systemically overpoliced and targeted for us. It is important to deal with the barriers to entry like previous convictions.

They designed equity as race neutral as possible by tying it to the population for the nexus of who it was for. Nationally speaking, the community most harmed by the war on drugs is 55% Black, 24% Latinx. People are allowed to sell metric tons of what would once lock you up.

Access to capital was the number one barrier. Can't use regular financial tools because of the schedule 1 status at a federal level. People were able to buy themselves into the process. Their licensure process is based on people who did not have this ability.

What to do with the money?

You cannot have racial justice without economic justice. Whenever anything connected to the plant is purchased, 25% is put in R3 Reinvestment Program to invest in community that was hardest hit by war on drugs

How do you undo past harms? They identified records to be expunged and/or pardoned while they were legalizing.

She explained that Illinois did the flip the switch model. All existing medical operators in Illinois before legalization were granted ability to flip to adult use. It allowed them to create industry they could study.

They stated studied every ballot initiative and every time an equity program we went to court and charted what knocked the programs down. They learned when you make race specific it was struck by the Supreme Court. They decided to make something race neutral that would help audience It was not popular in the stakeholder, activist and DEI community.

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The law went live in January right before COVID-19 hit and they were unsure of how it would impact sales. There has been no time to decide if it has been working or not.

She shared anecdote of a husband, activist and father who won multiple awards for human rights work who had felony charges from when he was young and for the first time is no longer a felon.

It's not just about legally being able to buying gummies, it is; criminal justice reform, drug policy reform and a case study in how to reinvest communities in thoughtful and intentional way. In the midst of horrible global pandemic it's time to see things differently because when you know better you do better.

Drug policies don't keep people safe and we need to change the paradigm. Whole generations have been thrown away.

The initial operators were charged licensure fees to fund a \$31 million revolving loan program which is targeted to equity applicants to start their business because there are traditional financial tools accessible for the cannabis business. Once you remove the barriers to applying you have to create conditions for people to compete.

Before they even got equity applicants out they got existing operators, they sell products the taxes going into the fund to help communities hardest hit while they are systemically going through records for pardons county by county. Their timeline is in 5 years to get through seven hundred seven thousand records.

Because we created social equity criteria that was race neutral—meaning anyone who lived in these area or had criminal justice experiences could qualify.

1. Do you live in a disproportionately impacted area?
2. Do you have an arrest or conviction for a marijuana related offense?
3. Does someone in your immediate family have an arrest or conviction for a marijuana related offense?

She noted every pillar of what we do begins with an equity question. There isn't a specific equity job, every job is an equity job. It is embedded in the decisions and in the law.

It's generational and landmark and mind shifting. New way to look at what people have seen as bad. Cannabis use in media is joke fodder unless, it's black and brown communities and then it is about crime. Part of this is an understanding and recognition of the hypocrisy and stigma around the plant and changes that perspective to rebuilding community.

We are at the at the precipice of doing some amazing things and figuring out all kinds of cancer research, it's impact on epileptic seizures, ADD, PTSD and chronic pain. It is very exciting.

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This is criminal justice reform, drug policy reform and a case study reinvesting in communities.

She reiterated that not everyone will be happy, people will feel strongly about it. Social services is very interested in the money and community reinvestment. Criminal justice will always want more and the legislative process is a result of negotiations. You won't be able to dismantle 80 years of failed drug policy with one bill, you have to start so that as you keep building so every year gets better.

Illinois built in pause to assess what worked and fix what didn't.

Question from Ngiste Abebe: Can you expand on the timeline from first sale to the disparity study?

Hutchinson: The people who wanted us to be race specific, we had to explain the way we could make race based policy prescriptions is only after a disparity study. You can't study an industry that doesn't exist. The medical and adult use industries are not the same and you can't fix what you can't see.

They let out 75 licenses first so they could identify if they were successful in relieving barriers. 97% of all applicants qualified as social equity applicant and over 60% qualified on prong one— 51% ownership by person of color living in DIA or had personal conviction for marijuana related offense. There were 4,518 applications for 75 licenses.

After 75 licenses went out they put a hard lid on the market and did a disparity study to see if the law did what they intended it to do. This was the first built in pause.

The last part they need is if they actually issued any equity license into the industry.

This is a multi-year, multi-phase effort. They passed the bill in May, the law went live in January, applications got turned in, and they break records every month and finally get to the point to issue licenses. In the background money is going into the reinvestment fund and they are methodically working on expunging of criminal records at the same time.

The public will always be looking at who is getting the license. Part of it is managing their expectations and getting them to understand it's not going to be fixed this one time.

This is a 5 year lookout. She tells everyone success was not January 1, 2020, success is what the industry looks like when we have a mature industry.

Annette Kelley: How many medical dispensaries did you have when you flipped that switch to allow them to go to adult use?

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Toi Hutchinson: 55. Would have had 110 if everyone applied for their second license. With 110 spoken and a cap of 500 and the 75 cap, we have 315 more before we give away everything. Along with the disparity study we also may need to do another demand study.

Annette Kelley: How long did the medical programs have to make the switch?

Toi Hutchinson: Some knew the bill would be live in January and began scaling up for the January launch. We also built in prioritization for medical patients. That is another balancing act. Some scaled up before January start date and some are doing it now.

Annette Kelley: I'd like to hear more about how you handled medical cannabis patients with adult use. Maybe we can catch up later about that.

Toi Hutchinson: Yes. We still struggle with that but we have the protections of it embedded in the statute. Happy to speak more offline.

Toi concluded by saying that the premise is that you are normalizing and legalizing activity that the prohibition of the same activity caused untold amounts of damage. You are only limited by how creative you can be.

Guest Speaker: Amber Littlejohn, Executive Director, Minority Cannabis Business Association

When it comes to looking at implementation and looking down the road it provides some perspective and developing the broadest definition of equity.

MCBA wants to create a space for equity to be everywhere and in everyone's mind.

They have 4 pillars:

- Equitable Communities
- Equitable Industry
- Equitable Access
- Equitable Justice

For this discussion she is going to focus on equitable communities and industries. Classically when talking about equity at the state level you are going to be hearing about equitable industry and making sure we are creating diverse cannabis reflective of communities.

We also think of restorative justice. The equitable justice aspect and expungements.

The two pieces that are getting more traction are going to be the community reinvestment and the equitable communities piece. These are the keys for the state of Virginia. When dealing with

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communities where many of the impactful voices in Black and Latinx communities are socially conservative and have fears and concerns.

It becomes important for non-Californian, non-heavily progressive state be mindful of the communities you are trying to impact. We like to lead with community. She was told by the head of a civil right rights organization's chapter they don't care about diversity and inclusion in the cannabis industry but do care more how it will impact the community.

We have seen locally and at the state level that you can't go back and ask an exorbitantly taxed industry for more tax revenue; it has to be built in at the outset. They like to see a certain portion of revenues set aside. We want to strike balance between helping cannabis industry build up state economies through revenue and also have protected revenues.

She thinks you strike the balance by targeting reinvestment dollars broadly and in addition to whatever support is needed for the social equity programs that we're look at where these communities are the most impacted and addressing those; substance abuse disorders, health disparities, economic opportunities, job training, job development

Looking at being the most impactful with those dollars and trying to direct those funds where the state needs them anyway and are ultimate wins and community builders for not just how it impacts cannabis but moving into broader community.

The next piece of this is addressed on the ground. Who is going to be entering the industry? Who do we want as stewards? Who do we want to have the privilege of doing business in this community?

And whether that be the state or local. Getting to that we want to promote community reinvestment agreements and so we want these community investment to be meaningful, substantial, to address externalities, encourage the adequate and proper regulation. We want to cover everything from a direct community impact as far as the industry goes. The way to make these work is to have an incentive for people to create a meaningful program. That is priority of licensing or number of licensing. We want there to be meaningful incentives to create these community benefits agreements.

One of the place we look to as we develop our policy is the federal community reinvestment act. It's a bill that recognized banks were not being great stewards. And now for the privilege for these additional license there is an oversight process. We want to see these community benefits agreements subject ongoing input from the community.

Moving to equitable industries: If equity is going to be the cornerstone of state legislation, we have to make sure at outset of the program there is a strong state social equity program in place. In states where that doesn't exist is a nightmare. The challenges in Illinois pale compare to a state like California that had minimal social equity.

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What we have are municipalities that are unable to create meaningful change across the state. You have programs being subject to the whims of local government. Because we are dealing with criminal justice there has to be policy across the state. Potentially incentivizing participation in at least certain elements of social equity program. For example, looking at or collecting data on arrests and criminal justice

Participating in pulling of a collection of data of enforcement actions on traditional market, vehicle stops and simple possession. We want to gather that data. If people are getting funds to enrich their communities we want buy in to social equity program. We want to make sure within those communities the policies around criminal justice extend to everyone.

She moved on to regulation. This is somewhere where they can be most impactful.

Despite Virginia's political diversity, addressing some of the issues of equity in regulatory framework will be a powerful tool. She said she can talk to libertarian and ultra conservative and when we talk barriers of industry and regulatory frameworks they find a lot of unity.

MBCA does not just represent business owners but their community as well. We come from an industry that was under regulated and we've watched the journey to good place of self-regulation and promoting of funding oversight agencies. We want to make sure whatever policies are in place are not creating a situation where we are disproportionately impacting a community that is already disproportionately impacted. At MBCA we look at marketing and labeling and making sure our communities are protected there. We look to the industry to self-regulate. We have enough information on what we can do and should be doing from other regulated industry that we know what we need.

On the other side regulations can be a barrier to entry if they are overregulated. Creating tiers to compliance, like at the federal level, creates unique burdens. It is a byzantine regulatory framework on the best day and navigating it as a small business up can be difficult The RFA at the federal level provides requirement that the state provides compliant support. Very few people want to skirt the law, it's a matter of resources and education. She implored any support that can exist there.

She noted that Ms. Hutchinson previously discussed the barriers to entry and the challenges for people of color in the industry. She agreed access to capital is an issue-- they've been working on this in a federal level. The reality is we are seeing consequences to lack of capital around the country.

If you have a license but no money someone will lend the money in exchange for rights of management, forced sale clause and IP rights. If we are truly identifying people most impacted by war on drugs or people in rural communities impacted by substance and criminal justice we have to support that person into becoming a business owner ?

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MCBA is taking a look at the property rights bundle of sticks. If the traditional ownership model is yielding few ownership rights we want to do something else.

One of the key suggestions they make is creating direct resources to support minority business owner. They can't put the burden entirely on state.

She said MCVA has state model policy that they are currently updating and expect to have it up by end of the year.

Michael Carter: I am a member of MCBA. What do you see as the standard for social equity taxes or contribution for tax money? What is the average those social equity funds usually receive?

Amber Littlejohn: Clarified if meant social equity for license/ operator program or the general community reinvestment.

Michael Carter: Community reinvestment

Amber Littlejohn: We like a healthy chunk off the top. Minimum of 25% because that money can be put to uses that would otherwise be general fund uses. For instance in CA , they are supporting daycare for low income children. We want to make sure that money is directed to communities that is ultimately pay dividends for the state.

Nicky Zamostny: Can you talk more about the model policy that you are going to be working on and the different components of that.

AL: Our first model policy came out in 2017 and we now have the ability to take what has worked and not works to try and reshape that policy. We cover everywhere that policy and equity meet within the 4 pillars, access, industry, community and justice. We are going to focus heavily on criminal justice and automatic expungement. Renewed focus on oversight that is set up in a way that there is comment and engagement with public that meets people where they are. They will focus on collecting data. They will focus on what the industry itself look like. What is going to be the breakdown. How and if we limit the market and what kind of oversight are we going to provide as a state when it comes to creating different business silos. Creating policy and education around investments and management and partnership agreements.

Brad Copenhaver: You talked about under regulating vs. overregulating and mentioned packaging and labeling as one of those topics. Can you expand on that?

AL: As we have seen with another product that is centered in the state of Virginia, we don't want to see targeting of urban youth and communities. If you see what I see in California. We've seen very urban centric marketing and we want to make sure that issue is addressed. We want to look

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at THC content and make sure the set limits are sensible to treat someone with terminal cancer but we aren't having young men with propensity for PTSD using those products and putting themselves in compromising position. We don't want marketing to children or pregnant women.

We're seeing this in CBD hemp, bad actors and fringe actors come in and create tainted products. They put the community in danger and reflects poorly on industry. There is a proliferation of drug tainted dietary products in communities of color.

We want to make sure we are looking at some of those lessons from dietary supplements and CBD hemp industry and being able to control the fringe purveyors that don't have the standard of quality. We don't want the public exposed to risk and harm and have it all fall apart.

She concluded her presentation and welcomed the subgroup members to reach out to keep conversation going.

Group Discussion

Brad: I suggest that we put our discussion in a few buckets in terms of what we've heard and spend a few minutes talking about potential recommendation from presentations.

Bucket 1: Licensure.

Bucket 2: Access to Capital

Bucket 3: Expungement and Restoration of Rights

Bucket 4: Community Reinvestment

Bucket 5: Regulatory Environment

Licensing:

Brad: Interested to hear from workgroup about licensing. Fascinated to hear Illinois started with 75 license, going to study and report back. We heard Steve Hoffman from MA talking about how their equity program roll out was bumpier and now they are considering different types of licenses to go to different folks to answer equity question. Interested in hearing what we've heard, what has worked well, what is a path we'd like to work with in terms of licensing.

Catie Finley: One question in my mind is even before you get to 75 licenses, is Annette's question of how you handle the medical cannabis licensure processors that are already here.

Ngiste: It was very interesting to hear the explanation for how Illinois had modeled. Struck by both how they used the medical program for early funds and how the initial round of funding to help both the capital investment and official regulatory requirements for some of that.

I hadn't realized all of the demands study they had done and the purposeful decision to issue 75 dispensary license and there are additional caps for cultivation and infuser license. In the

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cultivation space the license ensures all future growers will be social equity qualifying because it created just a micro grow license with the ability to expand and reduced the capital required to get a license to make it easier to acquire and start a business.

Cultivation, infuser, dispensary and distributor where the first issued. It struck me as fast and deliberate. Six months timeline was between signing the law and first day of adult use sales and I know many of the companies paying the fee in order to get additional license. In the 6 month window you are so limited because there is more demand than existing operators could meet. Different dispensaries had purchase limits and other policies in place to extend the supply and there is a bit of a challenge around some of the supply. Sudden increase in demand once that switches from July 1 2020.

We are 9 months away from that initial conversation. \$100 million in sales that have happened. I think a combination of fast and deliberate was important. If there is too much of a lag time you can see the illicit market grow. Leads to more illicit cannabis arrest disparities. Making sure speedy transition so we don't have illicit actors or unattended consequences. We're choosing between which set of risk factors we want to have.

The Illinois vs Virginia program will be something for us to keep discussing. Illinois has a population of 13 million and 55 original dispensaries. We have pop of 8 million and if there was regulatory certainty we would have at most 30 dispensaries. Roughly about 250,000 residents per dispensing location.

Jewel Bronaugh: You spoke on dispensary, cultivator, and infuser license. How does that sit aside retail extraction license?

Ngiste: There are multiple terms used for different. Cultivation is a grow facility and included in that is also that ability to infuse, process and create products not just grow products. Infuser is ability to purchase raw product and create refined product. Dispensary is the ability to have a reach location to sell the products. Transportation and distribution are the ability to transport between any types of facilities. The delivery last mile.

Brad: It was covered well how you build out a social equity license program without kind of being race specific. Something that makes sure that you are equitable treating the community disproportionately impacted but not specifically saying which community in the law. I'd be interested to hear from the group about how we would recommend VA create a social equity license structure and what kind of criteria do you think we would need to consider?

Michael: Very interested to know the race neutral aspect because that will be in issue with our House of Delegates and Senate. Advise getting a lot of advisory from papers they've written or resources they've utilized. Race neutral is new to me but viable approach.

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Ngiste dropped a link to the Adult Use Social Equity Program definitions into the meeting. There are two tiers:

51% or more ownership person from disproportionately impacted area.

Someone who has been, arrested, adjudicated or convicted of cannabis offenses eligible for expungement

Had parent or child has been arrested, adjudicated or convicted of cannabis offenses eligible for expungement

10 or more fulltime employees and more than half meet above criteria.

When you look at the map, the one issue is how do you account for gentrification or people who have been displaced? In IL there is additional requirements of if you have had to live 5 of the last 10 years in those spaces to account for gentrification. One of the issues is being able to prove they lived in one of those space. Something to consider.

Brad: More thoughts?

Ngiste: Make room for innovation. It might not be something for 2021 but in the longer run. How do you create space for creativity and innovation? For example, permits for private caterer serve a cannabis infused meal.

Brad: Access to capital. We've heard economic and social equity go hand in hand and you can't have social equity without economic equity and access to capital is a big part of that. Topics: a state supported revolving loan or grant program. Ways to engage private equity or private debt to provide capital. That is a big challenging topic. Thoughts?

Ngiste: I've seen in international affairs work US runs the development credit authority and without spending foreign aid funds we were able to provide extra layer of insurance to encourage other lenders to loan money to micro financiers who wouldn't fit into risk profit. Encourage VA financial intuitions who might be otherwise concerned.

Jewel: I remember one or two states did small business training. They will need that technical assistance and training and maybe some small business development training and technical assistance.

Travis Hill: Access to capital will depend on how you build your regulatory structure what you have in place and be aware of barriers created by regulations. Make sure don't create something only well-funded can access. Loan guarantees interesting. In agriculture there were conversations about backing shipments overseas. We have to figure out how to get capital in folks' hands without creating barriers.

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NA: I'm sure there are other examples in agriculture of second tier levels of insurance. Licenses and access to capital intersect to make it accessible but not too accessible. In Oklahoma they had an easy app process for medical dispensary and there are 4,000 medical dispensary license in the state of OK.

Having a license doesn't make it easier for you to access investors and access capitals. Having limited releases allows for a program to grow thoughtfully and intentionally. Every calendar year you can make improvements before it has become too hard to correct.

Brad: The next topic is expungement and restoration of rights. States that are moving forward with legalization this is something top on the list in terms of equity.

Michael: I'd be curious of OAG opinion on approach, manpower needs and the amount of cases in Virginia. How far will they go back? 20, 30, 40 years?

Holli: I can't speak for the whole office but expungements work on a petition basis. The only expungements that are available is if the charge was nullified or wrongful conviction. There are bills to change that. One deals with automatic expungement. Manpower is a challenge for state police who conduct all expungement.

Brian Moran: The two bills that had an automatic expungement provision and one that continues the petition basis were unable to reconcile their difference. That issue will continues to be debated in session.

With respect to marijuana specifically, the bill included a sealing provision. Sealing and expungement are used interchangeably in some state but are very different. Expungement eliminates the record and sealing is more of a technological and public cannot access. That came affective July 1. There has been some progress in sealing prior marijuana convictions and that discussion will continue.

Nathan: VA could use destroying like a traffic record. If it is expunged it stays in clerk's office, the manpower for clerks is incredibly large in expungement. Prosecutors and defense attorneys tried to put together a bill that put together a bill accelerating when drugs and alcohol offenses fall off record. In terms of licensure, expungement is complicated. Easier to get rid of barriers by having a felony record.

NA: My understanding i IL faced the same challenge around auto expungement. In NY they passed auto-expungement but already had highly automated electronic record. My understanding is in VA there are disparate level of systems. Cook County, IL pursued a public private partnership with Code for American to facilitate auto-expungement process. I think of Code VA in Jackson Ward.

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I would highly recommend if we go that route and the fiscal pressures on the state, Code for American has a good track record for working with state government.

NG: Did I hear Illinois working off pardons? That is different legal component. They must have something that allows the DA to pardon.

Nour Alamiri: Appreciate conversation about righting those wrongs and expunging past conventions. Also need to ensure these law enforcement mechanisms do not continue to impact communities disproportionately. Need to make sure the path forward is not further exacerbating past issues.

Kristen Howard: There are bills this session about secondary offenses and law enforcement not being able to pull people over for minor traffic offense or odor of marijuana.

Nour Alamiri: In the health impact sub group meeting we discussed public assisted house and communities where use would be prohibited. Make sure there is not more policing in those areas.

Brad Copenhaver: Last thoughts on community reinvestment and regulation?

Ngiste Abebe: I understand the Illinois model is based off issuing of grants. They put together Board of Appointees who oversees it and then there is 25 million in funds but it relies on grants that are submitted by community groups and community members meets the core data sets for disproportionately impacted areas. That level of citizen participating and oversight is important part of implementation.

Nour Alamiri: We talked in health subgroup we discussed the importance of hearing from the community members themselves and identify what they see as community reinvestment. There are a lot of organizations already doing a good job of revitalizing communities and enhancing social services to marginalized /vulnerable population. We can provide opportunity for those groups to apply for support would be beneficial.

Public Comment

Paul McLean, Virginia Minority Cannabis Coalition—in regards to the conversion around expungement. Having listened to the call, I understand the cost is exorbitant because of the manpower. But because of the public shame and embarrassment that an individual goes through involved with an arrest I would hope that when this process is hashed out that there is some public recognition, giving that person the opportunity to experience the positive side now that it will be legal.

Access to capital was mentioned numerous times. Several times the idea of what it is going to cost to do the social equity components--seemed like there was a lot of concerns. I briefly heard the utilization of private capital could be used but I also heard concerns about. It would be great

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to see state put a framework in place or third party access to allow that to happen. If it requires private capital in order for VA to do thing right on the social equity of this industry, I think people would be willing to tie their money to do what is right to right the wrongs.

Tamera Netzel— I wasn't going to speak today but then I heard Ms. Hutchinson say we need to see things differently to do things differently. I am a medical cannabis patient in VA, a retired teacher and photographer. After I became a medical cannabis patient I heard the criminalization stories and was compelled to tell these stories. I want to point out a resource. I created a nonprofit called Cruel Consequence, you can find us at scruelconsequences.org. We have had a lot of talk about what will happen in Virginia and we've have had speakers for out of state. But if you are looking for real world examples of Virginias we have them. We have personal stories of people who have been harmed in marijuana prohibition. One in particular is CPS. There is a gentleman in our project who is still harassed by CPS after getting his medical cannabis card. Apparently, you can be either a parent of Virginia cannabis patient and you cannot be both. There is something wrong with that.

Leroy Hardy—Michael Carter Jr. has been keeping us updated but I wanted to make sure that everyone is aware that during the research phase of the industrial hemp program there was no minority participation. Even though we sought to be apart we were not included and that gave growers a jump on all of us that are now trying to learn how to grow.

As the medical program was rolled out, we were not a part of that. As a 5th generation family operated farm I would like to make that part of the public record. We are looking to you help catch us up and make sure we are part of this industry.

As I can see hemp that has been grown for about 5 seasons we're just starting to see out 2nd season and there is a learning curb. But if hemp is to be grown in VA as it has been in the past by people that look like me and famers that are like us; small, family owned, generationally land owners were are looking to your all level the playing field and make sure we are continually not left out and left behind.

Jenn Michele Pedini adjourned the meeting at 4:58 PM.

Appendix 16

List of Meetings and Links to Recordings

Full Work Group

- ❖ July 31, 2020: <https://www.youtube.com/watch?v=XSpfHf2vjHU>
- ❖ September 16, 2020: <https://www.youtube.com/watch?v=eG193XliCBs>
- ❖ October 28, 2020: <https://www.youtube.com/watch?v=qzrEEpCETyU>

Fiscal and Structural Subgroup

- ❖ August 17, 2020: <https://www.youtube.com/watch?v=HdPSCqcgZnw>
- ❖ September 11, 2020: <https://www.youtube.com/watch?v=3N7SqzAoQ8s>
- ❖ October 15, 2020: <https://www.youtube.com/watch?v=pOErYF8Y4Ck>
- ❖ October 26, 2020: <https://www.youtube.com/watch?v=DzDUbpAT0f0>

Legal and Regulatory Subgroup

- ❖ August 17, 2020: <https://www.youtube.com/watch?v=B1OI5Epxoco>
- ❖ September 14, 2020: <https://www.youtube.com/watch?v=YIq8H9zCU0g>
- ❖ October 21, 2020: https://www.youtube.com/watch?v=c5aw8Y1Y_T0

Health Impacts Subgroup

- ❖ August 19, 2020: https://www.youtube.com/watch?v=QDs6qrqIA_g
- ❖ September 14, 2020: <https://www.youtube.com/watch?v=o6RodFEZOyE>
- ❖ October 14, 2020: <https://www.youtube.com/watch?v=zZUVvwsOXyM>
- ❖ October 20, 2020: https://www.youtube.com/watch?v=Bfv3yw3_ptc

Joint Subgroup on Equity

- ❖ October 20, 2020: https://www.youtube.com/watch?v=IFcQ-R_JnSo

