

# **Policy Approaches to High Concentration Cannabis and THC Concentrates**

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**And**

**Senate Finance and Health and Human Services Committee**

## **Intent of HB1317<sup>1</sup>**

Under Colorado House Bill 21-1317 (HB 1317) (CONCERNING THE REGULATION OF MARIJUANA FOR SAFE CONSUMPTION, AND, IN CONNECTION THEREWITH, MAKING AN APPROPRIATION) the Colorado School of Public Health (ColoradoSPH) was mandated to carry out a systematic review “...related to the physical and mental health effects of high-potency [Note added: Delta-9 Tetrahydrocannabinol (THC)] THC marijuana and Concentrates.” Additionally, HB 1317 instructed the ColoradoSPH “to make a recommendation regarding appropriate regulatory measures” if sufficient evidence was found to warrant such recommendations.

## **Introduction**

During the 2021 session of the Colorado General Assembly, House Bill 21-1317 was passed and funded, mandating the Colorado School of Public Health (ColoradoSPH) to review the evidence on health effects of high-potency marijuana and THC (Delta-9 Tetrahydrocannabinol) concentrates and to follow this systematic review with an educational campaign concerning these products. The passage of the bill was motivated by concern that changes in the cannabis marketplace would lead to exposures of Coloradans, particularly youth and young adults, to potentially risky doses of THC. Members of the legislature had considered the possibility of establishing a maximum legal THC concentration for products sold in the adult cannabis marketplace to reduce risks but concluded that the relevant scientific evidence was too uncertain. Commissioning a systematic review was an appropriate next step as it would provide a comprehensive picture of the state of the scientific literature on high-concentration cannabis and THC concentrates.

The mandated review was completed and released in April 2023 in the form of a scoping review, which lays out the evidence available. This review approach was taken by the ColoradoSPH because of the scope of the literature to be covered, the range of health outcomes considered, and the large number of studies identified when the review was launched (more than 60,000). The review team screened these articles and identified 452, which met criteria for inclusion. The characteristics of these studies and key findings were summarized and made available to the public via a dashboard and a publication in the scientific literature.<sup>2</sup> The scoping review documented deficiencies in the quality of the studies identified and the evidence was judged too uncertain to be conclusive as to the health effects of high-concentration cannabis products. Problems with the literature were serious, including deficiencies in study methods and very limited coverage of products relevant to today’s marketplace, especially to

understanding how risks for effects, whether beneficial or adverse, were related to concentration of THC in the products. However, there were findings that were considered as indicative of potential adverse and beneficial effects. We note that the scoping review was not intended to cover the effects of THC generally, but of products that fit within the charge of HB 1317 as “high potency THC marijuana or concentrates.”

Here, given the inadequacy of the extant scientific literature as a basis for policy formulation and following the intent of HB 1317, we provide suggestions on potential policy approaches to minimizing risks to Coloradans from high concentration cannabis and THC concentrates. In developing these suggestions, we have considered policy measures put in place in other jurisdictions, based on national mapping carried out by the National Conference of State Legislatures (NCSL). Additionally, we review principles for policy formulation when the relevant evidence is insufficient to support a particular group that might be at greater risk for adverse outcomes from use of these products or more likely to use them.

## At-Risk Populations

There is a potential range of risks associated with the usage of high concentration THC products across the population of Colorado. Policy measures and educational activities need to reflect and be responsive to the heterogeneity of the population. Here, we consider some groups as susceptible because they are more likely to experience an adverse consequence, e.g., people with an underlying mental health disorder, or that fit into a unique, protected category, such as the fetus. There are also groups who are more likely to be drawn to use high concentration THC products, perhaps because of peer activities or proximity to dispensaries. Table 1 enumerates these populations in Colorado; the text below describes their characteristics.

## Pregnancy and Breastfeeding

The brain of the unborn fetus and of the infant develops at a remarkable pace. Research has repeatedly shown that neurocognitive development can be slowed and harmed by chemical exposures during pregnancy and early childhood (in fact, into adolescence). Additionally, THC is concentrated in breast milk about 8 to 10-fold in

comparison with maternal plasma.<sup>3,4</sup> While the direct evidence on exposure to high THC concentration products during these critical development periods was very limited in the scoping review, the susceptibility of the brain to environmental insults during these periods is well known and ample research shows that neurocognitive development can be slowed and harmed by THC exposure during the prenatal, infant/early childhood and adolescent development (periods of rapid brain development).<sup>5,6</sup> This evidence on perinatal cannabis exposure comes from studies of use of products with THC potency of 4-5%; the research shows that such exposure is associated with negative neurocognitive outcomes in later childhood and adolescence. Nicotine represents another example of an exposure to a highly psychoactive agent that can begin during pregnancy and extend across childhood. Similarly, the evidence on adverse effects of nicotine exposure on neurocognitive development from maternal smoking during pregnancy is strong and further highlights the potential for adverse effects of exposure to THC during gestation.<sup>7</sup>

In Colorado, there were 62,356 live births in 2022 and 62,698 children under one year of age.<sup>8,9</sup> The most recent cannabis use data for this population in Colorado show that in 2020 6.8% of new mothers reported smoking marijuana during their pregnancy, and 3.7% reported doing so while breastfeeding in the postpartum period.<sup>10</sup> Breast milk contains THC if the nursing mother is using cannabis products.<sup>11</sup>

## Youth and Young Adults

Prevalence of use of the various high concentration THC products differs by age group, with notably high prevalence of use among youth and young adults. The current state of research and scientific knowledge points to ongoing brain development through age 25 that can be disrupted by cannabis use.<sup>12</sup> There are 1,141,699 individuals in Colorado between the ages of 10 to 24 (2022 estimate).<sup>8</sup> The most recent data from the Healthy Kids Colorado Survey (2021) found that 13.3% of high school students reported marijuana use in the past 30 days, with 16.1% of high school cannabis users reporting high use (over 40 times in the past 30 days).<sup>13</sup> Of high school students who used cannabis in the past 30 days, 59.2% report using THC concentrates, such as resin, hash, or wax, and 49.2% dabbled at least once during the past 30-day period.<sup>13</sup> These methods of use are often associated with exposure to higher THC concentrations. The

2021 Behavioral Risk Factor Surveillance Survey (BRFSS) found that young adults between the ages of 20 and 24 also report relatively frequent cannabis use, with 16.7% reporting daily or near daily use.<sup>14</sup>

## Older Adults

As of 2022, there were 932,146 individuals over the age of 65 in Colorado.<sup>8</sup> Among this population, 7.6% report marijuana use in the past 30 days and 4% report daily or near daily use.<sup>14</sup> This population is of concern because of the high rate of underlying chronic diseases. Older adults are also at greater risk of injuries from falls and motor vehicle accidents. Between 2016-2022 in Colorado, 85% of falls and 18.3% of motor vehicle accidents occurred in adults aged 65 or older.<sup>8</sup> Additionally, the negative effects of cannabis on motor skills and perception are well-documented.<sup>15</sup> Older adults already suffer a disproportionate share of injuries and deaths due to motor vehicle accidents and falls;<sup>16,17</sup> cannabis use could increase risks for both.

## Preexisting Medical Conditions

High concentration THC use may pose a risk to those with pre-existing mental health conditions, which are prevalent in Colorado.<sup>18</sup> The scoping review identified a body of literature linking higher THC exposures to adverse consequences for mental health. A detailed systematic review of these studies is in progress. Between 2016–2019, the annual average prevalence of serious mental illness (SMI) during the past year for those over 18 was 6.3% (or 272,000 individuals total for Colorado) and the prevalence of past-year serious thoughts of suicide was 6.4% (or 275,000 total).<sup>18</sup> For young adults, the estimates were even higher. Among those 18-25 years of age, the prevalence of past year thoughts of suicide was 16.1%, and past year SMI was 12.1% (or 71,000 total), while 12.5% (or 52,000 total) of those 12-17 reported a major depressive episode in the past year.<sup>18</sup> The annual average prevalence of marijuana use disorder for those over the age of 12 was 3.3% (or 160,000 total).<sup>18</sup>



## Preexisting co-morbidities (chronic diseases)

Those living with chronic disease, e.g., chronic obstructive pulmonary disease (COPD), may face greater risk from exposure to high concentration THC products. While there is no consensus around the impact of THC on diabetes progression,<sup>19-21</sup> those with coronary heart disease (CHD)<sup>22-24</sup> and/or pulmonary disease may face increased risk from exposure. People with pulmonary diseases, asthma<sup>25</sup> and COPD,<sup>26,27</sup> are at risk for exacerbation of their underlying problem by inhaling noxious substances in general. As of 2021, 7% of Colorado residents over the age of 18 had diabetes, 10% had asthma, 5% had some form of COPD, and 2% had coronary heart disease.<sup>28</sup>

## LGBTQ+ Populations

An estimated 4.6% of Colorado adults belong to the LGBTQ+ community in data collected across 2012-2017.<sup>29</sup> According to data from the 2020 National Survey of Drug Use and Health, 41.3% LGBTQ+ adults report cannabis use compared to only 18.7% of adults in the general population, placing a disproportionate burden among this population of any potential negative effects stemming from high concentration cannabis use.<sup>30</sup>

## Racial and Ethnic Minority Populations

Use patterns are likely to vary across Colorado's diverse populations, reflecting access, social media, and culture. Proposed policy changes may differentially impact Colorado communities based on race and ethnicity. In 2022, 86.2% of Colorado residents identified as White, 4.7% as Black, 3.8% as Asian American, 1.7% as American Indian or Alaska Native, 0.2% as Native Hawaiian or other Pacific Islander, and 3.4% as two or more races.<sup>8</sup> There is a large Hispanic identifying population at 22.6%.<sup>8</sup> Recognizing the diversity of our state, justice and equity implications of any policies need consideration, i.e., assessing how steps taken will affect key groups within Colorado.

## The National Policy Landscape

Here, we summarize a comprehensive scan of state policies that have been enacted to address high concentration cannabis products. For this policy scan, we collaborated with the National Conference of State Legislatures (NCSL), which maintains a policy database of all cannabis-related policies at the state-level from 2018 to the present. NCSL used this database to identify all state-level policies that deal with high concentration cannabis products in some way. Twenty two state-level policies were identified that were categorized by NCSL into four distinct categories: (1) those that introduced concentration purchase or possession limits based on THC, (2) those that limited THC levels specific to cannabis purchased for medical use, (3) those that limit THC by product or category, and (4) those that apply a higher tax rate to high concentration cannabis products. The number of states having each of these types of policies is summarized in Figure 1 below.

Figure 1 includes 22 different laws across four categories. Two are most common: limiting amount of THC by product or category, or limiting the concentration sold or having possession limits based on the THC amount. For example, in 2022 Mississippi introduced a THC limit for cannabis flower of 30% and placed a 60% limit on other cannabis products; in 2023 Delaware introduced a concentrate possession limit of 12 g or less, or of less than 750 mg of THC. Tables 2-5 describe the specific approaches taken by the various states for the four categories of policy measures in Figure 1.

## Policy Tools

Complementary to the policy scan, we provide a brief literature review of policy tools and what is known about their potential effectiveness. The literature review and the mapping of the policy landscape identify a number of potential tools that could be used to reduce potential risks from high concentration products. These are set out below as either “consumer-side policy tools” or “distributor side policy tools.”



## **Consumer Side Policy Tools**

### **Age Restrictions**

Restricting the age at which high-concentration cannabis can be purchased recreationally is one potential policy tool to mitigate harm among minors and young adults. Every state that has legalized recreational cannabis, including Colorado, has set an age restriction of 21 years for both purchase and use.<sup>31-33</sup> As a parallel example, in the context of young adult tobacco use, raising the age limit from 18 to 21 was found to significantly reduce tobacco use among 18-20 year olds.<sup>34</sup> Similarly, pursuing a higher age threshold for recreational high-concentration cannabis use might reduce access and use among underage and young adult users.

There is also a precedent for age restriction on cannabis use in the medical domain. For example, some states like Alabama, which has not decriminalized recreational cannabis use, set age restrictions on medical users, in this case, preventing purchase and possession of medical cannabis for those under the age of 19.<sup>33</sup>

### **Point of Sale Restrictions**

A point-of-sale restriction on the allowed quantity of high-concentration cannabis per transaction is another tool to reduce high concentration cannabis use. Weight-based purchase limits are common in the US for recreational cannabis. However, these weight-based limits may have an unintended effect of encouraging consumers to purchase higher concentration products.<sup>35</sup> Capping sale quantity by THC concentration, or employing limits based on product type could remedy this unintended consequence of restriction of the purchase amount. There is precedent for this type of restriction in several US states, including Illinois, Alaska, Arizona, Arkansas, and several others.<sup>36</sup> In Colorado, cannabis consumers may purchase only up to 1 oz of flower, 8 g of concentrates, or 800 mg of servings of edible product per day. Pursuing more stringent point-of-sale restrictions on total THC amount legally purchasable could prevent users from reaching a daily dosage that might lead to increased risk for adverse consequences.

## **Concentration-Based Taxation**

All states that currently allow sale of recreational cannabis levy taxes. Most states use percentage-of-price taxes, much like a sales tax. Some states, however, use weight-based taxes. Finally, two states, Illinois and New York, have pursued a concentration-based tax.<sup>37,38</sup> Due to small numbers of states with such tax policy, there is little evidence as yet on the consequences and effectiveness as it relates to the concentration of product sold. A theoretical modelling of a concentration-based cannabis tax, however, predicts a significant reduction in average cannabis concentration in response.<sup>39</sup> Pursuing a concentration-based tax can financially dissuade consumers from purchasing high-concentration products and potentially lower the availability of high concentration products overall. From extensive experience in tobacco control, higher prices reduce use overall with greater effect among youth.<sup>40</sup>

## **Distributor Side Policy Tools**

### **Marketing and Advertising Restrictions and/or Warning Label Regulations**

At present, Colorado prohibits most external advertisement for cannabis.<sup>41</sup> Unlike other states, however, Colorado does not prohibit curative/therapeutic claims and does not require product warning labels.<sup>41</sup> Health warning labels are required on tobacco product packaging and are effective in reducing tobacco use, especially when graphic warnings are used.<sup>42,43</sup> Providing warning labels or pursuing graphic health warnings, following the example of tobacco products, and prohibiting therapeutic claims could help reduce current use and dissuade future high-concentration cannabis use.

### **THC Concentration Caps on Recreationally Available Products**

Capping the THC concentration available in recreational cannabis products is another potential tool to reduce high concentration use. States that have implemented THC concentration caps have done so by limiting concentration to between 30 -35% for flower products and 60% for concentrates or other non-flower products.<sup>44,45</sup> These policies have been met with concern that limiting THC concentration in legal cannabis products could push consumers to non-legal markets.<sup>46</sup> However, this method also has the potential to reduce high concentration use by recreational users.

### **Limits on Availability of Specific THC Products**

As some products are more likely to contain a higher concentration of THC (oil versus flower, for example), restricting the types of THC products recreationally available is another way to reduce high concentration use through distributor regulation. Such a policy has been implemented in Vermont and is a potential tool to mitigate risk and use across all recreational users.<sup>44</sup> Similar to THC concentration limits, however, there is concern that this type of policy may push consumers towards a non-legal market.

## **Options for Colorado**

### **Taking a Precautionary Approach**

Given the scope of the market for cannabis products in Colorado and the changing marketplace with increasing concentration of THC in cannabis and the rising number of high concentration products, it is appropriate to consider measures that could protect the health of Coloradans. There are substantial segments of the state's population that we consider as at-risk, adding a further impetus for action (see Table 1). The findings of our scoping review do not provide a sharp picture of the health effects of high concentration cannabis products, nor do they indicate a particular product concentration or dose that should not be exceeded. We do know, however, that the THC dose reaching the brain is the critical determinant of effects, whether beneficial or adverse. We have commented on the limitations of the evidence identified in the scoping review and the implications for policy formulation. There are some warnings from the scoping review around mental health outcomes, and the Scientific Review Council has offered strong concerns about the fetus and maternal use of high concentration products. Taking a precautionary approach, any THC exposure of the fetus during pregnancy should be assumed to pose risk for adverse consequences that may be lasting. In addition, the current state of research and scientific knowledge points to ongoing brain development through age 25.<sup>47</sup>

In this decision-making context, i.e., lacking definitive evidence as a foundation, the precautionary approach is a reasonable and widely used principle for taking protective steps. One of the most widely quoted definitions of the precautionary principle comes from the Wingspread Conference: "When an activity raises threats of harm to human

health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.”<sup>48</sup> In the context of public health and high concentration cannabis use, adherence to the precautionary principle calls for action, even in the absence of certainty as to the risks (and benefits) of high concentration products. Additionally, there is a lack of robust evidence supporting the safety of such products. The precautionary principle requires that the burden of proof lies on proving safety, not risk, and that any action taken err on the side of caution and risk prevention.<sup>49</sup> Our compilation of the numbers of potentially susceptible and vulnerable populations further supports consideration of measures that would be protective of public health.

## **Goals and Objectives**

Guided by the precautionary principle, we suggest that any additional steps taken by the Colorado General Assembly and the Colorado Department of Public Health and Environment (CDPHE) should address the potential risks to the state’s at-risk populations, particularly Colorado’s children and young adults. Measures taken should have the following critical objectives:

- Protect the fetus, infants, and toddlers from any exposure to high concentration products.
- Limit contact of adolescents and young adults up to at least age 21 with high concentration products.
- Make certain that those individuals with mental health problems and their care providers are aware that high concentration products may pose a threat.
- Assure that users of high concentration products understand that health risks of these products are uncertain.
- Shift the distribution of sales towards lower concentrations generally while research continues to better characterize the effects of high concentration products.

- Conduct real-time monitoring of the cannabis marketplace and consumption patterns of the various population groups of interest and evaluate potential impacts on health outcomes.

### **What measures can be taken to achieve these goals?**

- Protect the fetus, infants, and toddlers: This highly susceptible group needs protection that begins before birth and that extends to later years when accidental ingestion can have serious consequences. A broad sweep of educational measures is needed to enhance awareness of the need to avoid use of high concentration products (and other substances) during and after pregnancy. General awareness needs to be ramped up, as happened with alcohol and tobacco use during pregnancy, and the full array of health care providers involved with pregnant women and newborns. General education on prevention and awareness of the dangers of accidental ingestions in infants, and toddlers needs to continue and to be integrated into injury prevention messaging. Emphasis on and enforcement of preventive measures, such as child-resistant packaging, dose limitations, and restrictions on labeling or advertisements that appeal to children and adolescents, should be continued.
- While sales of cannabis products are illegal to those under age 21, they may access such products. Materials giving warnings on risks of high concentration products should be an element of health education as it touches on cannabis and other substances. Those providing primary and emergency care for adolescents and young adults need to inquire about and provide counsel concerning high concentration products. High concentration products are legally sold to those 21 years and older and we are uncertain as to whether raising the age limit for purchase of such products would have any spill-over for access of those under 21. Measures that might generally reduce purchases of higher concentration products, e.g., taxation protocols or sales limits might shift purchases more generally towards lower concentration products affecting products used by young adults and teenagers.

- Protect those with mental health problems: Educational measures directed at this diverse group and the health care providers managing their problems are requisite. General measures, i.e., taxation and sales limits, could also prove effective.
- Shift sales towards lower concentration products generally: The policy scan documents that some states have implemented tax policies and sales regulations for that purpose. As noted above, any shift towards lower concentration products would be precautionary and reduce contact of the identified susceptible and vulnerable populations with higher concentration products. Challenges are evident in implementing such policies, including a definition of higher concentration products for tax and regulatory purposes. The experience of other states can be compiled and evaluated to set approaches for implementation.
- User education: There is a general need to provide information to the public at large, particularly those in at-risk groups, and to users of cannabis products concerning the potential risks of high concentration products while acknowledging the uncertainty of the scientific evidence. Precautionary messaging that adheres to what is known is appropriate. In considering channels for such education, dispensaries should be considered as a potential venue.<sup>50</sup>
- Conduct real-time monitoring of the cannabis marketplace and consumption patterns of the various population groups of interest and evaluate potential impacts on health outcomes: Real-time monitoring and surveillance of sales and consumption patterns of high-concentration cannabis is critical to better understand the public health impacts in the growth of high-concentration products in the Colorado cannabis marketplace. Colorado's Marijuana Enforcement Division has detailed real-time information on cannabis production and sales in the state. In addition, the Colorado Department of Public Health and Environment (CDPHE) tracks consumption and use patterns through the Behavioral Risk Factor Surveillance Survey (BRFSS), Healthy Kids Colorado Survey (HKCS), and Pregnancy Risk Assessment Monitoring System (PRAMS). CDPHE



also monitors the potential public health impacts of the cannabis marketplace through surveillance of hospital discharge data from the Colorado Hospital Association and calls made to Rocky Mountain Poison and Drug Safety. These collective efforts should be enhanced and coordinated to provide timely surveillance of the sales and use of high-concentration cannabis products and the health implications.

- There should be ongoing review of the scientific literature, which should become increasingly informative concerning higher concentration products as research addresses the more recent marketplace.

## Concluding Comments

This report to the Colorado General Assembly is intended to complement the April 2023 report on the findings of the scoping review. We offer a survey of regulatory measures currently in place and considerations of potential effectiveness. We lack “real-world” evidence on effectiveness because of the brief time that these measures have been in place. Based in our characterization and enumeration of at-risk populations in Colorado, we offer a menu of options for reducing their use by these groups. In the face of uncertainty, a precautionary approach is warranted to protect Colorado’s populations particularly those at-risk. As called for by HB 1317, we have launched educational campaigns and other activities for that purpose.

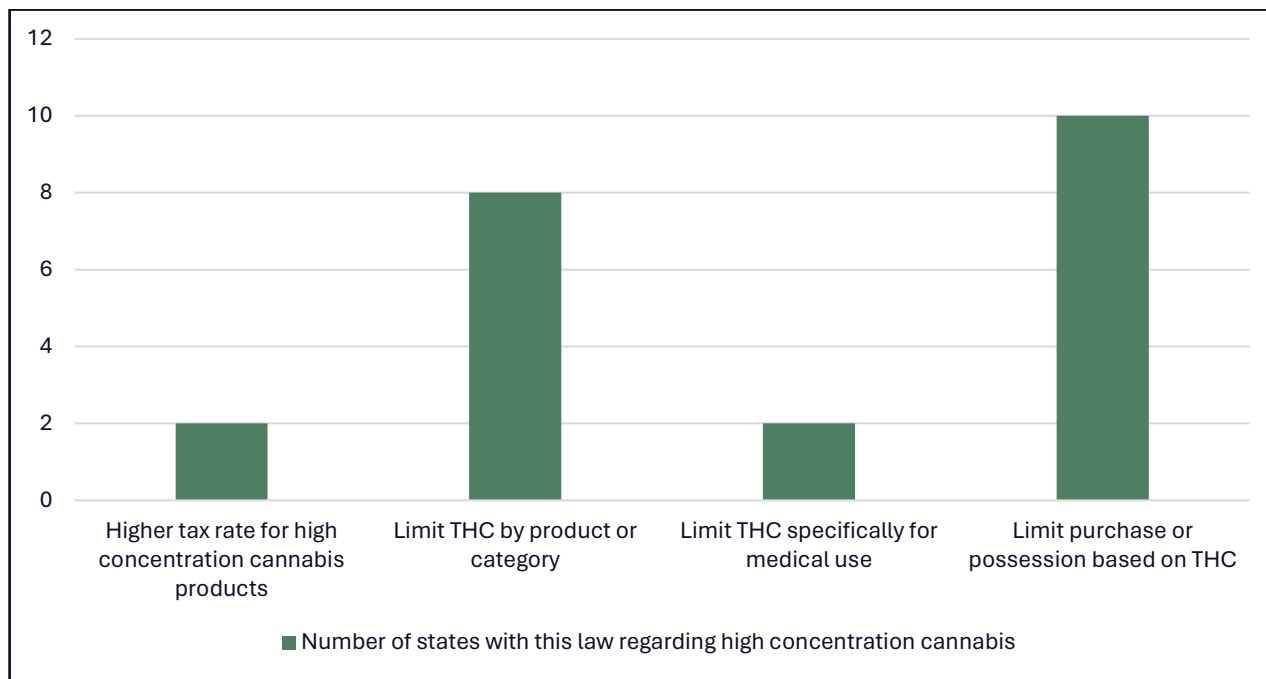
## Tables and Figures

**Table 1. Counts of Vulnerable and Susceptible Populations in Colorado**

| Population of Interest                                       | Count     | % of Colorado's population |
|--|-----------|----------------------------|
| <b>Pregnant and nursing people:</b>                          |           |                            |
| Live Births <sup>9</sup>                                     | 62,356    |                            |
| Infants (< 1 year) <sup>8</sup>                              | 62,698    |                            |
| <b>Youth and young adults (age 10-24)<sup>3</sup></b>        | 1,141,699 | 19.55%                     |
| <b>Older adults (65+)<sup>8</sup></b>                        | 932,146   | 15.96%                     |
| <b>LGBTQ+<sup>29</sup></b>                                   | 212,760   | 4.60%                      |
| <b>Racial and Ethnic Minority Populations<sup>8,51</sup></b> |           |                            |
| <b>Race</b>  |           |                            |
| White, alone   | 5,032,345 | 86.19%                     |
| Black or African American, alone                             | 276,917   | 4.74%                      |
| Asian, alone   | 218,803   | 3.75%                      |
| American Indian or Alaska Native, alone                      | 97,863    | 1.68%                      |
| Native Hawaiian or Other Pacific Islander, alone             | 12,959    | 0.22%                      |
| Two or more Races, alone                                     | 199,902   | 3.42%                      |
| <b>Hispanic Origin<sup>8</sup></b>                           |           |                            |
| Hispanic   | 1,317,065 | 22.56%                     |
| Non-Hispanic   | 4,521,724 | 77.44%                     |
| <b>Preexisting mental health conditions<sup>18</sup></b>     |           |                            |
| <b>Adults (18+)</b>  |           |                            |
| Serious Mental Illness (SMI)                                 | 272,000   | 6.30%                      |
| Past-year thoughts of suicide                                | 275,000   | 6.40%                      |
| <b>Young adults (18-25)</b>                                  |           |                            |
| Serious Mental Illness (SMI)                                 | 53,360    | 12.10%                     |
| Past-year thoughts of suicide                                | 71,000    | 16.10%                     |
| <b>Youth (12-17)</b>   |           |                            |
| Past-year major depressive episode                           | 52,000    | 12.50%                     |
| <b>Preexisting co-morbidities<sup>28,51</sup></b>            |           |                            |
| Diabetes   | 375,105   | 8.11%                      |
| Asthma   | 501,374   | 10.84%                     |
| Chronic Obstructive Pulmonary Disease (COPD)                 | 243,287   | 5.26%                      |
| Coronary Heart Disease (CHD)                                 | 128,581   | 2.78%                      |

## State Laws Regarding High Concentration Products

**Figure 1. Overall Distribution of Types of State Laws Regarding High Concentration Products**



**Table 2.**

| Higher tax rate for high concentration products |   |
|---|---|
| <b>Illinois</b>                                 | <b>10% tax on cannabis flower or products with less than 35% THC; 20% tax on products infused with cannabis, such as edible products; 25% tax on any product with a THC concentration higher than 35%</b>   |
| <b>New York</b>                                 | <b>Sets different tax rate by THC/product- five-tenths of one cent (\$0.005) per milligram of the amount of <u>total THC for cannabis flower</u>; eight-tenths of one cent (\$0.008) per milligram of the amount of total THC for <u>concentrated cannabis</u>; and three cents (\$0.03) per milligram of the amount of total THC for <u>cannabis edible product</u>.</b> |

**Table 3.**

| <b>Limit THC by product or category</b> |   |
|---|---|
| <b>Connecticut</b>                      | No flower over 30% THC allowed and 60% in other products except for vapes or medical use.   |
| <b>Mississippi</b>                      | No flower over 30%, other product limit 60% and must be labeled “extremely potent.”   |
| <b>Montana</b>                          | Except for registered medical card holders: no flower over 35%, capsules 100 mg THC max/800 mg per pack, tincture max 800 mg, food 10 mg per serving or 100 mg per pack, topical 6% or 800 mg per pack, suppository or patch 100 mg/800 mg per pack, other product max 800 mg per pack. |
| <b>Nevada</b>                           | Products may not contain more than 1/8 oz. concentrated cannabis.   |
| <b>New Mexico</b>                       | Does NOT allow regulator/state to limit overall THC concentration but can for portions and required packaging.  |
| <b>Oregon</b>                           | Allows OLCC to set max THC limits on products/servings in consultation with OHA and Dept of Ag and allow a concentration of up to 100 mg per package of edibles.  |
| <b>Rhode Island</b>                     | Allows the state to do research on high THC products and set THC limits.  |
| <b>Vermont</b>                          | No solid or liquid concentrate products over 60% THC. Higher % may be sold or transferred commercially but not sold to consumers. Liquid concentrate products at 60% can be sold OTC if they are prepackaged.   |

**Table 4.**

| <b>Limit THC specifically for medical use</b> |  |
|---|--|
| <b>Alabama</b>                                | Pediatric medical dose may not exceed 3% THC. Drivers' license is immediately suspended for anyone receiving a max dose of 75 mg or more.  |
| <b>Colorado</b>                               | Requires recording of medical transactions for quantity and THC limits, which are 8 grams of concentrate for adult patients and 2 grams for medical patients 18 to 20 years old. |

**Table 5.**

| <b>Limit purchase or possession based on THC</b> |   |
|--|---|
| <b>Colorado</b>                                  | Adults 21 and older can have up to 2 ounces of marijuana.   |
| <b>Connecticut</b>                               | Limits possession to 12 grams or less of concentrated cannabis, or products containing less than 750 mg or less of delta-9.                 |
| <b>Delaware</b>                                  | Sets concentrate possession limits of 12 gm or less, or less than 750 mg THC.   |
| <b>Illinois</b>                                  | Sets possession and purchase limits of 2.5 oz of flower, or 2.5 oz total of flower and concentrate but no more than 5 grams of concentrate. |
| <b>Massachusetts</b>                             | No person shall possess more than 1 ounce of marijuana or marijuana products within the person's place of residence                         |
| <b>Maine</b>                                     | Sets possession and purchase limits of 2.5 oz of flower, or 2.5 oz total of flower and concentrate but no more than 5 grams of concentrate. |

|                     |   |
|---------------------|---|
| <b>Minnesota</b>    | <b>Sets maximum possession of 8 grams of concentrate.</b> |
| <b>Nevada</b>       | <b>Sets possession limit of 1/8 oz. concentrate.</b>      |
| <b>North Dakota</b> | <b>Max purchase total of all products is 6000 mg.</b>     |
| <b>Rhode Island</b> | <b>Sets max concentrate purchase/possession of 1 oz.</b>  |



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