

Federal Regulation of Cannabis for Public Health in the United States

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EXECUTIVE SUMMARY

As federal policymakers debate the benefits of legalizing cannabis, it is important to consider lessons learned from experiments with recreational cannabis laws in U.S. states and abroad. The statutory language of enacted state laws and federal proposals thus far have largely focused on the goals of raising tax revenue, investing in communities most harmed by drug prohibition, eliminating the illegal market for cannabis and reforming the criminal justice system, specifically through the expungement of prior offenses. These are important goals. Similar attention should also be given to the public health objective of preventing excessive and harmful cannabis use within a legal market.

Though millions of Americans use cannabis in moderation each month with no health issues and research clearly identifies several therapeutic purposes for cannabinoids contained within the plant, research also provides clear evidence linking long-term or excessive use of cannabis with a myriad of adverse health consequences. These include impaired short-term memory and motor coordination, impaired cognitive functioning, increased risk of cannabis use disorder, altered brain development, and increased risks of anxiety, depression and psychosis in certain populations. More recently manufactured cannabis products, such as extracts, edibles and waxes, have significantly higher levels or concentrations of delta-9-tetrahydrocannabinol (THC) compared to flower, and have been associated with a rise in acute psychosis, poisonings and cannabis hyperemesis syndrome. These high-potency products are especially risky for inexperienced and vulnerable users, including adolescents and pregnant women.

In this white paper, we detail four feasible policy tools that support public health objectives within a legal framework for cannabis that are often overlooked in state recreational proposals we have seen thus far, including the July 2021 discussion draft of the Cannabis Administration and Opportunity Act (CAOA), the most recent federal proposal to legalize cannabis at the time of this writing.

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4 FEASIBLE POLICY TOOLS THAT MAY BE EFFECTIVE AT PREVENTING HARMFUL USE OF CANNABIS

1 Placing limits on the amount of THC and its analogs in legal products sold

Policy makers should consider caps on the naturally occurring or synthesized psychoactive constituents of cannabis products, currently understood to be primarily THC, in all products sold in legal markets. Vermont and Connecticut are the only states that cap THC on all products sold, limiting the percentage of THC to 30% in flower and 60% in solid products. The CAO A does not explicitly include a cap on THC, but it does allow the Food and Drug Administration (FDA) to develop regulations on the sale and distribution of cannabis products

appropriate for the protection of public health. Such limits should be made explicit in legislation to better guide the FDA. The ongoing escalation in THC concentration in legal products sold in state markets suggests that potency limits are necessary to reign in industry's enthusiasm for developing ever-increasing higher-potency products that we know now clearly generate negative health effects, including cannabis use disorder, psychosis, acute pediatric and adult poisonings, cognitive impairment and cannabis hyperemesis syndrome.

2 Instituting potency-based sales limits

U.S. states that have legalized recreational cannabis use have set sales limits restricting the amount of cannabis that a retailer can sell to an individual in a single transaction or over a period of time. These limits are predominantly based on product weight and cannabis type, ranging from 1 to 2.5 ounces for flower and 3.5 to 15 grams for concentrates. These sound like reasonable limits at first glance. However, if one assumes a standardized dose of 10 milligrams of THC in consumption (the typical amount in a single edible serving), and applies the median potency of products today, all states

imposing limits allow more than 500 10 milligram servings of cannabis to be sold in a single transaction, and six states allow purchases exceeding 1,000 servings. Imagine if states allowed the sale of alcohol in these quantities. A full keg of beer, for which many states require registration before sales occur, only provides 165 12-ounce servings of beer. The CAO A includes a retail sales limit even higher than that of every current state policy. These total product sales limits should be lowered and placed within the context of what scientists are understanding as a standardized dose of THC to protect public health.

3 Designing a tax structure based on the potency of products

Taxation of cannabis in a manner similar to alcohol, based on intoxicating potential rather than total liquid in the container, would also be a useful public health tool. The majority of U.S. states with laws allowing for adult use and sale of cannabis have imposed retail-level, price-based taxes on cannabis products, with a few states also imposing weight-based taxes of raw cannabis. Both types of taxes incentivize producers to create and consumers to purchase higher-potency cannabis products. As of January 2022, Illinois is the only state that considers potency as part of its tax structure. Instead of a true tax based on potency, however, the state institutes a tax based on price that differs by potency thresholds. Connecticut and

New York are the only states that currently have plans to tax products based on potency; however, these taxes have not yet been implemented. The CAO A includes a tax per milligram of THC of extracts, which is a constructive start, but this THC-based taxation would begin five years after legalization and is limited to only extracts. Lessons learned from alcohol taxation and from state experiences with recreational policies so far suggest that a potency tax on all products and at the onset of legalization is the only way to ensure development of a cannabis market that emphasizes responsible, moderate consumption.

4 Implementing seed-to-sale data-tracking systems

To understand the impact that a heterogeneous product like cannabis has on public health, it is important to understand which specific products are being consumed, how potent they are and which mode of administration is being used. Seed-to-sale tracking systems allow regulatory agencies to view every gram of legal cannabis cultivated and watch as it migrates through the supply chain, including the comprehensive monitoring of final products purchased by store and location. Through these systems it is possible for regulatory agencies to monitor sales in addition to product choice, enforcement of

sales limits, collection of taxes and potential opportunities for diversion from legal to illegal markets. Though many states with recreational policies have seed-to-sale tracking systems, federal coordination, requirements and oversight could improve the functionality of these systems and help regulators achieve public health objectives. Importantly, it can serve as an early warning system in the identification of potentially contaminated products that make it into the marketplace and sold in multiple markets (just as we use barcodes to identify where lettuce and spinach are distributed and sold).