

September 1, 2021

The Honorable Charles Schumer, Majority Leader United States Senate S-221, U.S. Capitol Building Washington, DC 20510

The Honorable Cory Booker United States Senate 717 Hart Senate Office Building Washington, DC 20510 The Honorable Ron Wyden United States Senate 221 Dirksen Senate Office Building Washington, DC 20510

Re: The Cannabis Administration and Opportunity Act, Discussion Draft

Dear Senate Majority Leader Schumer and Senators Booker and Wyden:

Americans for Safe Access (ASA) respectfully submits these comments with regard to the Cannabis Administration and Opportunity Act. ASA is the nation's oldest and largest 501(c)(3) member-based medical cannabis advocacy organization with a mission to advance access to cannabis for therapeutic use and research. ASA was founded in 2002 and since then has led the way toward the enactment of numerous state medical cannabis laws.

ASA also created the Patient Focused Certification (PFC) program in 2014 as a way to address cannabis cultivation, processing, dispensing, and laboratory production and testing requirements, and is currently the only ISO 17065 accredited certifying body for a cannabis compliance program. Below are ASA's comments which are presented in responses to the specific questions provided by your offices for this solicitation.

Should you have any questions or need any additional information please contact Dustin McDonald at dustin@safeaccessnow.org and Heather Despres at heather@safeaccessnow.org.

Sincerely,

Dustin McDonald, Interim Policy Director

Americans for Safe Access

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The Sponsoring Offices request comments on the new definition of "cannabis," including comments on:

The appropriate way to measure the potency of cannabis and cannabis products.

There is much discussion amongst the scientific community about the best way to measure the potency of cannabis and cannabis products. Some of the first methods published were methods which used gas chromatography (GC). This method was flawed because the conversion of THCA to THC was incomplete, making the quantification of THC unreliable. The cannabis plant produces cannabinoids, which are responsible for many of the physical responses in the body, in their acidic forms, which must generally be converted into their neutral forms to achieve many of the desired physiological responses. Studies now show that the acidic cannabinoids may also achieve desired physiological responses and it is important for laboratories to be able to differentiate between the acidic and neutral forms.

Many states Departments of Agriculture utilize a GC method, which, for a department that would have historically been tasked with identifying the plant or product as cannabis or cannabis-containing to identify if something was illegal or not, only the presence of THC mattered, not necessarily how much of it was there. The incomplete conversion of THCA into THC would not matter for that type of analysis, whereas in order to accurately quantify both the acidic and neutral cannabinoids a liquid chromatography (LC) method is more appropriate. The American Herbal Pharmacopeia's Cannabis Inflorescence Monograph and recent publication from the United States Pharmacopeia (USP) both highlight GC and LC methods, however most cannabis testing laboratories opt for LC methods over GC methods.

High performance liquid chromatography (HPLC) is the preferred analytical method for analysis of both the acidic and neutral cannabinoids. Additional consideration should be given to the methods used to extract the cannabinoids from extracts and derived products. Incomplete extraction of cannabinoids from a food or other infused product could result in a mislabeled product and lead to potentially adverse events. Laboratories conducting analyses of cannabis and cannabis products should be required to validate not only the testing method being utilized but also the extraction and sample preparation methods as well.

The interaction between the definition of "cannabis" and the definition of "hemp".

Americans for Safe Access respectfully submits the following nomenclature to identify and differentiate between cannabis and hemp. The principal difference between cannabis and hemp is regulatory in nature in that hemp is permitted as long as the total amount of THC present is less than 0.3% by weight whereas in cannabis products the total amount of THC present may exceed 0.3% by weight. When talking about the plant and only its taxonomic features, it should be referred to as either *Cannabis sativa* or simply *Cannabis* whereas if a specific cannabis or hemp product is being referred to they may be called cannabis or hemp products, based on their THC content, and to identify products according to the regulations they fall under.

The interaction between the definition of "cannabis," "cannabis product," and FFDCA drugs containing cannabis.

With the use of consistent nomenclature the differences in product type and origin may be ascertained.

The following terminology is recommended to identify product types and origins:

Cannabis - plant of the species Cannabis sativa whose inflorescences may contain greater than 0.3% THC by weight.

- Cannabis product product made from the cannabinoids contained in the plant *Cannabis sativa* which may contain greater than 0.3% THC by weight.
- Hemp plant of the species Cannabis sativa whose inflorescences must contain less than 0.3% THC by weight per USDA requirements.
- Hemp product product made from the plant *Cannabis sativa* which may or may not contain cannabinoids and, if so, must contain less than 0.3% THC by weight.
- Medical cannabis (product) *cannabis* products, including inflorescences, which are regulated under state medical cannabis programs.
- Pharmaceutical cannabis product products derived from *Cannabis sativa* which are regulated under the FFDCA for which Food and Drug Administration (FDA) approval is required.

It should be noted that medical cannabis products may also be regulated under the FFDCA and be required to meet the standards for dietary supplements (21 CFR 111) and be distinguished and classified differently than pharmaceutical cannabis products which must adhere to more stringent regulations (21 CFR 211). This is principally due to the differences in access and product availability of medical versus pharmaceutical cannabis products. There are almost 5 million medical cannabis patients in the US who utilize their state's medical cannabis program to access medical cannabis products while there are only 3 pharmaceutical cannabis products that have been approved by the FDA. These 3 products (Marinol, Cesamet, and Epidiolex) have a limited scope of patients for whom the drug may be prescribed. In previous comments submitted to the FDA, ASA has encouraged FDA to work with Drug Enforcement Administration (DEA) to increase the number of researchers and research products available to researchers so that scientists can continue to identify products which prove medically beneficial. No matter which standard medical cannabis products must adhere to (21 CFR 111, 21 CFR 211, or state specifications), access for patients relying on this medicine must not be affected while the best way to set product specifications and regulations is determined.

Most state medical and adult-use cannabis programs have product specifications that products must meet prior to being permitted to be sold including specifications for potency, adulteration, and contamination along with labeling and disclosure requirements. ASA urges Senators Schumer, Wyden, and Booker to work with cannabis regulator groups, practicing cannabis researchers, cannabis testing laboratory operators and scientists to identify appropriate testing and product specification requirements. Currently each state maintains different testing requirements, leaving cannabis patients across 37 states without uniform medicine that maintains the same composition of plant compounds in the same proportions, or that is held to the same standards related to the volume of heavy metals, molds, pesticides and contaminants included in the cannabis medical products.

The appropriate classification and regulation of synthetically-derived THC.

At this time there are two different categories of synthetic THC products - those that have been banned by the DEA and those that have been approved by the FDA. The DEA has banned synthetic THC products, also known as Spice, K2, Black Mamba, etc. These "synthetic", or non-naturally derived, substances were banned because of the toxic effects within the body including increased heart rate, vomiting, agitation, and confusion along with a lack of manufacturing oversight and standardization. On a molecular level, these substances have a chemical structure similar to THC, but it is not identical and it is this altered structure that causes the litany of adverse effects. In contrast, the FDA has approved 2 pharmaceutical drugs that are synthetic THC: Marinol and Cesamet. The THC present in Marinol and Cesamet has a structure identical to THC which is derived through a series of chemical reactions and processes to be identical to naturally-derived THC.

Studies have shown that patients had better outcomes when taking whole plant medicine that included all the cannabinoids and terpenes present to Marinol, which is a single-compound drug. The reason for this is related to

the Entourage Effect, which was first identified in 1998. Numerous studies have supported the Entourage Effect that whole plant extracts increase the physiological activity of the cannabinoids as opposed to that of a single compound.

ASA supports those products which are approved by the FDA and a ban on those products which may cause adverse effects and unwanted harm to patients as it relates to synthetic cannabinoids. Additionally, ASA supports maintaining access to whole plant medicines and products for the almost 5 million medical cannabis patients and estimated 40.3 million adult-use consumers, many of whom may be using cannabis medicinally despite making a purchase in the adult-use marketplace.

Conforming amendments and interactions relating to the descheduling of cannabis and establishing a new definition outside of the Controlled Substances Act.

Since the passage of the Controlled Substances Act (CSA), the conversation surrounding federal cannabis reform has always been tethered to cannabis' Schedule I status. This is because removing cannabis from the CSA entirely would create pathways for other federal departments and agencies to act and organize corollary reforms. However removing cannabis from Schedule I or from the schedule of controlled substances entirely does not facilitate an expedited pathway to federally sanctioned cannabis medicine, or address the effect of federal discriminatory policies on the lives of patients across the country, which are predicated on cannabis' CSA classification.

As federal departments and agencies have traditionally approached cannabis with a view consistent with cannabis' CSA Schedule I status – that the drug has a high propensity for abuse but no medical value – this view must be changed completely to meet those now held by 37 U.S. states, the District of Columbia, four U.S. territories, 47 countries across the globe, the United Nations and the World Health Organization who have reformed their laws to extend safe and legal cannabis access to patients. Beyond simply rescheduling or descheduling cannabis, what will be most critical to the successful establishment of federally-sanctioned cannabis medicine will be the reassignment of federal department and agency roles predicated on the value of cannabis as a medicine.

ASA urges federal departments and agencies to lead a comprehensive review of federal cannabis policies as they exist currently, how those policies affect the health of patients relying on cannabis to treat their health, and how changes to the federal scheduling of cannabis under the CSA and corollary reassignments of departments and agencies would improve health outcomes for all patients. From the Office of Personnel Management (OPM) and the Department of Housing and Urban Development (HUDO to the Department of Veterans Affairs (VA), Health & Human Services (HHS) and the Department of Commerce (DOC), reforms must be made to facilitate a pathway to federally-sanctioned cannabis medicine and address federal policies that are harming cannabis patients.

HUD's policies provide an excellent case study of the impact of the Schedule I classification of cannabis under the CSA. HUDs mission to extend housing support to equity communities is compromised by this scheduling. And with millions facing the loss of housing security and economic instability stemming from the COVID pandemic, it is critical that HUD work to remove discriminatory policies pertaining to cannabis and housing. According to U.S. census data, there are nearly 4.6 million Americans who rely on federal support for housing. However, because federal law still classifies cannabis as a Schedule I substance under the CSA, any of the 4.6 million Americans who rely on federal support for housing, and who are also medical cannabis patients, are at risk of eviction even if they live in one of the 37 states where medical cannabis is legal. As a result, many of our nation's medical cannabis patients must choose daily between meeting their health and housing needs.

To address this and other policy challenges, ASA encourages the inclusion of key members of the medical community on the legislation's proposed Advisory Committee. Specifically ASA urges the inclusion of patients,

caregivers, and senior physician, health and research professionals from key fields such as neurology, psychology, pediatrics, palliative medicine, addiction and emergency medicine, who also possess experience in treating patients with cannabis. Together this group would provide recommendations to Congress and the administration on reorganization of federal department and agency jurisdictions and responsibilities to facilitate federally-sanctioned cannabis research, and address associated cannabis patient discrimination issues.

The Sponsoring Offices also request comments on agency responsibilities, including—

The appropriate division of responsibilities between FDA, TTB, and ATF, including ways to increase coordination between agencies and ways to reduce duplication of administrative and compliance burdens.

ASA encourages the organization of a temporary or permanent office to lead all federal department and agency reforms related to cannabis following either a rescheduling or descheduling of cannabis. The purpose of the office would be to lead federal reforms and reconcile competing department and agency agendas. Such an office should include the leadership of key federal departments and agencies who currently maintain jurisdiction over cannabis, and be overseen by a new appointment unaffiliated with any federal department or agency. The head of this office would maintain a deep working knowledge of federal regulatory roles related to cannabis and the suite of U.S. state and foreign nation cannabis reforms implemented, and be dedicated to facilitating an expedited pathway for federally-sanctioned cannabis medicine that produces uniform, consistent, safe and affordable medicine for patients.

Appropriations requests for various agencies involved in cannabis administration in order to ensure that those agencies have the necessary tools and resources to effectively carry out new responsibilities.

Sufficient federal spending should be authorized and appropriated to facilitate federal regulatory reorganization related to oversight of the medical and adult-use cannabis industries, establish an expedited pathway to federally-sanctioned cannabis medicine, develop unifying federal regulations for laboratory testing requirements for cannabis medicine and organize guidance for insurance companies to subsidize the high cost of cannabis medical products for patients.

The Sponsoring Offices request comments on states' rights and anti-diversion provisions, including—

The appropriate quantitative thresholds regarding contraband cannabis.

Americans for Safe Access supports reasonable quantitative thresholds regarding contraband cannabis to ensure the safety of cannabis medicine as it is transported from one state to another. At present 37 states and 4 U.S. territories have implemented some form of medical and/or adult-use cannabis program. These programs stipulate personal possession limits for each type of product, with medical cannabis patients typically authorized to possess larger amounts of cannabis products than adult-use consumers. One of the many challenges with establishing this type of limit is the type of medicine each patient needs. For example, if a patient is inhaling cannabis for immediate relief of nausea they may not need to possess as much cannabis flower as a patient who is making extracts, consumable, or topical cannabis products as those products require a higher amount of plants to make the extracts that are used in making consumable and topical products. Setting a higher limit will prevent patients who need larger volumes of plants and extracts to make their medicine from being prosecuted under either state or federal law while allowing for the prosecution of those who violate threshold limits.

The interaction between state primacy regarding cannabis regulation, and the need for interstate consistency for product standards and regulation, including any responsibilities that should be reserved explicitly for states or the federal government.

Federal leadership is needed in organizing unifying regulations and guidance to improve the consistency, safety and affordability of cannabis medicine for patients served by the Department of Veterans Affairs, and patients utilizing the civilian healthcare system. While 37 states have reformed their laws to permit medical cannabis access, there is wide variation among these states in their approach to cannabis product safety standards, laboratory testing requirements and product labeling, as well as state organization of any programs designed to help patients afford the high cost of cannabis medicine. As a result patients cannot rely on the safety or consistency of the medicine authorized by state cannabis programs, and many are unable to afford the legal medicine they need to treat their health.

Federal leadership must also steer efforts to expand the scope of cannabis medical research and develop an expedited pathway for federally-sanctioned cannabis medicine to quickly reach patients. With patients and their doctors across a supermajority of states already applying cannabis medicine to a wide range of physical and neurological conditions, federal regulators should work to catch up and lead academic research on the medical utility of cannabis and ensure rapid access to federally-approved cannabis medicine.

The appropriate quantitative thresholds regarding the limit on retail sales of cannabis.

At present 37 states and 4 U.S. territories have implemented some form of medical and/or adult-use cannabis program. These programs stipulate personal sale and possession limits for each type of product, with medical cannabis patients typically authorized to buy and possess larger amounts of cannabis products than adult-use consumers. One of the many challenges with establishing this type of limit is the type of medicine each patient needs to treat their health condition.

For example, if a patient is inhaling cannabis for immediate relief of nausea they may not need to possess as much cannabis flower as a patient who is making extracts, consumable, or topical cannabis products. These products require a greater number of plants to make the extracts that are used in consumable and topical products. Setting a higher retail sales limit will prevent patients who need larger volumes of plants and extracts to make their medicine from being prosecuted under either state or federal law while allowing for the prosecution of those who violate threshold limits.

The Sponsoring Offices believe that cannabis research should be robustly funded and encouraged and that such research will provide significant public health and safety benefits. The Sponsoring Offices request comment on research, training, and prevention, including—

1. Whether programs can be designed to steer research dollars to Historically Black Colleges and Universities and other institutions associated with historically disadvantaged communities.

Currently there are a number of colleges and universities offering cannabis education or courses such as agriculture and horticulture that are training future cannabis industry workers. A few examples of these programs include:

Northern Michigan University - Plant Medicinal Chemistry (undergraduate degree program)

- UC Davis Physiology of Cannabis (undergraduate course)
- Vanderbilt Marijuana Law and Policy (undergraduate course)
- University of Maryland Medical Cannabis and Science Therapeutics (masters degree program)

- University of Colorado at Pueblo Cannabis, Biology and Chemistry (undergraduate degree program)
- Santa Rosa (CA) Junior College Hemp Cultivation (associates degree program)

Additional universities and colleges are looking at establishing degree programs and these should be able to be adopted by Historically Black Colleges and Universities and other institutions associated with historically disadvantaged communities. Many universities offer courses and some are adding degree programs which means there are multiple options for schools looking to add similar courses or programs.

As the cannabis industry shifts to a more regulated and controlled industry, training and education are critical in ensuring that the industry continues to move forward toward standardized practices such as those that already exist in other agricultural and manufacturing industries.

Federal funding should also be directed toward Historically Black Colleges and Universities to develop and advance curricula in medical cannabis education covering the endocannabinoid system, and the composition and applications of cannabis medicine. Currently the American Medical Association is not collaborating with medical schools and physicians across the country on these subjects, despite the fact that physicians are working with patients across 37 states to apply cannabis medicine to their health conditions. In the absence of AMA leadership, ASA urges federal lawmakers and regulators to collaborate with the medical schools of Historically Black Colleges and Universities to establish a medical cannabis educational curriculum that prepares the physicians of tomorrow to practice cannabis medicine.

Additional areas that may benefit from research, including agriculture, environmental protection, worker health and safety, and other areas.

Due to the federal status of cannabis there has been limited research, despite an industry that has been active for over 20 years. The cannabis industry could benefit from extensive research being conducted on not only the medicinal benefits of the various cannabinoids, terpenes, and their combinations, but also on other areas of the industry in order to standardize and improve the methods in which cannabis is grown, processed, manufactured, tested, and sold to patients.

Worker health and safety is incredibly important. Fortunately, worker safety standards already exist in the areas of cultivation, manufacturing, and laboratory testing. There are also standards that exist to evaluate retail worker safety as the cannabis industry has a higher risk of certain events such as robbery. Many state Departments of Agriculture are already overseeing cannabis cultivation, however only California requires OSHA training for site managers. The industry will benefit from worker protection standards being put in place that are universal across all states and territories.

Cannabis cultivation can be notoriously bad for the environment. Illegal cultivation operations can spread trash, harmful pesticides, and other environmental pollutants including nutrients and fertilizers into the surrounding ecosystem and waterways. The average cost of cleanup is \$40,000 and while California remains a hotspot for illegal cannabis cultivation operations, which typically use public lands such as state parks, illegal cultivation sites have been found across the US. To date, over 400 illegal sites have been discovered on US Forest Service land in California, which could cost upwards of \$16M to remediate.

The cannabis industry would benefit from research into sustainable cultivation practices and an eye toward greener practices. Indoor cultivation operations are not exempt from harming the environment as the lights and ballasts and other equipment can pose a risk if not disposed of properly. Fertilizers, nutrients, and pesticides must also be handled in accordance with indoor cultivation best practices. Studies need to be conducted on the harms

of pesticide use and consumption to identify what reasonable action limits should be established along with identifying those substances that may be permitted for use and which should be banned from use.

Food, dietary supplement, and drug manufacturing is federally overseen by the Food and Drug Administration however there are only a few states, including Michigan and Maryland, that have implemented Good Manufacturing Practices requirements for cannabis manufacturing and processing operations. Workers in these areas of the industry would also benefit from standardized requirements of safety and production.

The proper manner to measure potency of a cannabis product and which products should be subject to a per-THC content tax rather than a purely weight-based tax.

Cannabinoid product potency should be evaluated utilizing liquid chromatography with an adequate detector including diode array or mass spectrometer. Potency should include not only the cannabinoids but also the terpenes which, as studies are showing, are also therapeutically beneficial. Terpene analysis is best done by gas chromatography with a flame ionization detector or mass spectrometer. Cannabinoid-containing products should also be tested for homogeneity to determine if the cannabinoids are evenly distributed amongst a product that contains multiple servings, such as a chocolate bar.

Regarding taxation of cannabis products, ASA discourages lawmakers from imposing a per-THC content tax, and urges lawmakers to instead impose a tax on cannabis products by weight. ASA urges federal lawmakers to work with state cannabis regulators to arrive at a uniform tax standard for cannabis products that is consistent across all 50 states.

The Sponsoring Offices have not specified responsibilities or membership of the Advisory Committee and request comments on—

Criteria for Advisory Committee membership to ensure diverse viewpoints and policy priorities are properly represented.

The Advisory Committee should be composed of patients, caregivers, and senior physicians, health and research professionals from key fields such as neurology, psychology, palliative medicine, pediatrics, addiction and emergency medicine, who also possess experience in treating patients with cannabis.

Roles and responsibilities of the Advisory Committee.

The Advisory Committee should provide a comprehensive review of the scope of domestic and international research conducted on the application of cannabis to health conditions, as well as associated domestic and international policy reforms of countries and world organizations. The Committee should also assess the status of cannabis under the Controlled Substances Act and existing jurisdictional roles and responsibilities of federal departments and agencies related to cannabis and current federal processes for approval of proposed medicines and products demonstrating medicinal value.

Ultimately this commission should provide recommendations to Congress and the administration on:

- Optimal approaches to establishing federally-sanctioned cannabis medicine;
- The reorganization of federal department and agency jurisdictions and responsibilities pertaining to authorization of federally-sanctioned cannabis medicine research, medical cannabis researchers and cannabis material to be used in federally-sanctioned cannabis research;

- Appropriate consumer product testing and labeling standards for medical cannabis and cannabis products;
 and
- Appropriate recommendations for physician education and continuing education regarding the endocannabinoid system.

The role of the Advisory Committee in agency consultation, including the administrative and rulemaking process.

The Advisory Committee should be included in the rulemaking process and development of proposed rules, regulations and guidance on all federal cannabis policy reform items.

The Sponsoring Offices believe that robust enforcement against commercial bribery and uncompetitive practices is critical to ensure that small and independent cannabises have an equal footing in the marketplace. In addition, consistent labeling and disclosure rules serve to protect the public and prevent misleading practices by market participants. The Sponsoring Offices request comments on cannabis administration and trade practices enforcement, including—

Transition rules to address cannabis products that already exist in the marketplace or those introduced in the marketplace, including before TTB and FDA issue regulations or other guidance.

There is a large volume of state-regulated cannabis products available and actively being produced and used by patients, which must be maintained and available to patients to treat their health during the integration of any federal regulations for these products.

The Sponsoring Offices request comment on additional, general, and unspecified items, including—

Any other areas of concern to stakeholders, federal agencies, members of Congress, and state and local regulators.

Beyond the medical cannabis patient priorities covered in our responses to this questionnaire, ASA also requests clarity on Sec. 312 of the bill regarding non-discrimination of federal programs related to cannabis possession and use. Specifically, ASA would like this section to address HUD's practice of denying housing assistance to or forcing the removal of patients who use cannabis to treat their health. ASA would also like to see this legislation require HHS and the VA to collaborate with the ASA-recommended Advisory Committee to develop a cannabis physician education curriculum for VA and civilian physicians.