EXECUTIVE SUMMARY

Prioritizing Mental Health in an Emerging Market

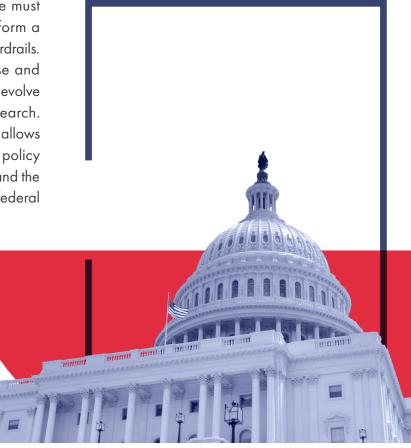
A Framework for Maintaining Public Health and Expanding Knowledge on Cannabis and Mental Health



Executive Summary

The regulatory structure governing cannabis use must be rooted in science, evidence, and data to inform a responsible marketplace and utilize reasonable guardrails. Our understanding of the potential harms of use and therapeutic applications of cannabis will continue to evolve over time through continued and advanced research. Officials should design a regulatory framework that allows common-sense rules to be responsive to evolving policy and market environments. To that end, individuals and the communities in which they live will benefit from a federal

regulatory system designed to manage mental health outcomes regarding the use of cannabis products. Ultimately, these components should serve as the foundation upon which a comprehensive federal regulatory system is built. This white paper seeks to define the fault lines in the current understanding of cannabis and its impact on mental health and provides recommendations to advance an evidencebased regulatory system.



Claims regarding the effects of cannabis on mental health appear to fall on seemingly opposite ends of the spectrum. One side believes that cannabis use causes psychosis, worsens psychiatric symptoms, and poses a significant risk for developing cannabis use disorder. The other side often dismisses any claim of potential harm or side effects from cannabis use, instead focusing exclusively on the potential therapeutic aspects, particularly mental health conditions. The truth is likely somewhere in the middle:

- CANNABIS & PSYCHOSIS: Cannabis may be one of many factors related to the manifestation of psychosis, and products with moderate or even low amounts of THC may exacerbate symptoms. Clinical trials of CBD products have shown therapeutic benefits in those with psychosis.
- CANNABIS & ANXIETY: Mixed research findings reflect a complex relationship heavily influenced by the unique effects of individual cannabinoids and the doses used. While low doses of THC and mid-range doses of CBD may alleviate anxiety, higher doses of THC often produce or exacerbate anxiety.
- CANNABIS & PTSD: Some research studies have corroborated anecdotal findings of symptom relief, while other studies report that cannabis use is related to more severe symptoms and problematic use patterns. Cannabis use may provide short-term relief, but long-term use could potentially result in poorer outcomes in those with PTSD.
- CANNABIS & MOOD: While associations between cannabis use and mood disorders have been documented, additional research is needed to more clearly delineate this relationship. given evidence that some cannabinoids may provide clinical benefit for at least a subset of individuals with mood disorders, controlled clinical trials are needed.
- CANNABIS & CANNABIS USE DISORDER (CUD): Although some individuals develop CUD, the majority of recreational cannabis consumers do not develop problematic patterns of use. Preliminary data suggest CBD may protect against development of CUD.

Where should research go from here?

There are dozens of pertinent and pressing questions that should be addressed as quickly as possible with rigorous research. Most relevant to overseeing cannabis use, the federal government should promote and fund research behind two critical areas:

First: Defining Responsible Use

Although additional research is needed to delineate the specific parameters with the most significant impact, existing data can be used to help to shape a framework for responsible use. Important considerations include:

- AGE: Children and adolescents are particularly vulnerable to the adverse effects of cannabis, as they are with any drug.
- THC AND CBD CONTENT: While THC has therapeutic benefits, it is also associated with adverse outcomes, particularly for children and adolescents. CBD, which has a range of therapeutic properties, has an acceptable safety profile and may protect against adverse outcomes associated with THC.
- PRODUCT CHOICE & MODE OF USE: Different modes, or ways of using cannabis, are associated with unique characteristics regarding how much of the active ingredients enter the body, how long it takes to feel or get an effect, and how long effects will last.
- CUD PREVENTION: Those with mental illness are more likely to use high potency products, but these
 products are most likely to be associated with CUD; harm reduction efforts are key.
- FAMILY HISTORY/GENETIC LIABILITY: Individuals with a personal or family history of mental illness, particularly psychotic disorders, are likely at higher risk for adverse outcomes associated with cannabis use. Specific genes influence an individual's ability to metabolize drugs including cannabinoids, which also leaves some at increased risk for adverse effects.
- OTHER MEDICATION USE: Cannabinoids can interfere with the metabolism of certain medications, making them more or less potent.

Second: Improving screening tools for Cannabis Use Disorder (CUD)

Existing screening tools are considered reliable and valid among recreational (non-medical) cannabis consumers, but new metrics designed to assess problematic use in those who (also) use for medical purposes are needed.

Finally, it is incumbent on the federal government to act quickly in order to:

CREATE A FRAMEWORK FOR RESPONSIBLE USE

- Decision-making tools designed to help consumers identify their level of risk will certainly increase safety and help prevent unnecessary exposure for those least likely to gain benefit and most likely to experience negative effects.
- Provide resources for public education campaigns, screening, and treatment to prevent and mitigate irresponsible cannabis use.
- Grant the appropriate regulatory powers the ability to place restrictions on problematic cannabis products as research and data dictate.

REDUCE BARRIERS TO CANNABIS RESEARCH

- To thoroughly assess both the potential benefit and risks associated with cannabis and cannabinoid use, researchers should be allowed to study the actual products used by consumers and patients, which is not possible under current Federal law.
- Invest in rigorous research on cannabinoid-based therapeutics for mental health
- Well-designed, empirically sound, and controlled studies offer an important opportunity to customize and optimize cannabis and cannabinoid-based treatments, ultimately changing the narrative and transforming patient care.
- Encourage federal public health and research agency officials to issue joint guidance to research institutions about the opportunities and legality of conducting clinical, observational, and other scientific research focused on cannabis. This will undoubtedly help address the potential chilling effect on some universities given the extremely complex, dynamic set of rules and shifting landscape associated with cannabis

STANDARDIZE TOOLS FOR CANNABIS RESEARCH

• The wide variety of cannabis/cannabinoid formulations available across the country has led to contradictory results across research studies and misinterpretations about what these findings mean. Standardized metrics to assess cannabinoid exposure and standardized batteries to assess outcomes are needed across research investigations.