Position Statement
Cannabis Use in Schizophrenia

Cannabis use significantly increases the risk of developing a psychotic disorder such as schizophrenia.[1]

Cannabis provokes several psychotic syndromes – some short-lived and others that are chronic.[2] This risk is especially high during adolescence,[3-6] possibly because the brain is still developing.[3,7-9] Cannabis is more likely than other substances to lead to schizophrenia.[5] Approximately 35% of those who develop cannabis-induced psychosis develop schizophrenia, compared with 10% of those who experience alcohol-induced psychosis.[8] The risk of developing schizophrenia from cannabis use increases considerably with more frequent and heavier use.[1,10,11]

In people with schizophrenia, cannabis use can make them less likely to take their antipsychotic medications and cause a higher rate of relapse, more severe symptoms, an increase in violent behaviors and suicidal tendencies, and more frequent and longer hospital stays.[1,11-13] Preliminary evidence also indicates that children whose mothers used cannabis during pregnancy are at increased risk of psychotic symptoms, although this has not yet been linked to long-term psychotic conditions.[14]

The increasing potency of tetrahydrocannabinol (THC), the compound responsible for most of marijuana's psychological effects, further raises its risks.[15] The average THC concentration in marijuana has risen sharply – from 4% in 1995 to 15% in 2021 – with some products exceeding 90%.[16] Meanwhile, legalization combined with targeted marketing (e.g., youth-directed promotion and more retailers in low-income and ethnoracially diverse neighborhoods), as well as dismayingly few warnings about the risks, have rapidly increased the frequency and intensity of cannabis use.[17-20]

It is estimated that 8%-32% of psychotic disorders might be prevented if heavy cannabis use were stopped.[21,22]

This makes cannabis use one of the strongest modifiable risk factors for the development and long-term impact of schizophrenia. Yet the expanding legalization of recreational and medical marijuana in the United States fails to address the extensive health harms from its use.

Schizophrenia already costs the United States more than $280 billion per year.[26] The increased incidence of schizophrenia, earlier onset of the disease and higher rates of relapse contribute to increased costs for healthcare, education, employment, family expenses, criminal justice system involvement, homelessness and supported housing initiatives.[3,12,23-25] Although cannabis is taxed at the state level, the tax revenue does not begin to address the health harms it is predicted to cause. In 2022, state tax revenue from cannabis was only $3 billion; proposals for a federal tax are estimated to raise only $8 billion/year. In contrast, increasing the number of U.S. cases of schizophrenia by even 1 percent would cost an additional $4.5 billion per year.

It is crucial to critically evaluate and address these significant public health and economic impacts as part of marijuana legalization policies.

Call to Action

S&PAA supports funding from the relevant federal, state and/or local resources to accomplish the following aims:

1. **Oppose legalization of recreational cannabis use.** We advocate against the legalization of recreational cannabis. Our stance is underpinned by the clear relationship between cannabis use and increased risk of schizophrenia and psychosis. Notably, while we stand against legalization of recreational cannabis, we do not believe that cannabis use should be criminalized; rather, we firmly support treatment over punitive measures for those who use cannabis.

2. **Pair any legalization effort with stringent, practical harm-reduction practices.** Despite S&PAA's opposition to the legalization of recreational cannabis, we know that national legislative sentiment favors legalization. If policymakers insist on supporting this legislation, it is their responsibility to ensure their constituents are aware that cannabis use increases the risk of schizophrenia and psychosis. Legalization should be required to include harm-reduction strategies and prohibit sales to those below age 21. Severe penalties must be in place for selling or providing cannabis to minors, and warnings required on marketing materials, as well as bold warnings on every item sold. Marketing to youth must be prohibited. In alignment with the American Medical Association,[27] we also call for a cap on the potency of marijuana to mitigate its more severe risk.[1,10,11,28]

3. **Hold the cannabis industry financially accountable.** The health harms of cannabis use are borne by governments, hospitals, individuals and health insurers. Instead, policymakers should shift as much cost as possible to the cannabis industry. Strategies to increase revenue should parallel those used for the tobacco industry, including significantly increased state taxes on cannabis products, with federal taxation if cannabis is legalized on a federal level. Taxes on these companies should be based on THC concentration, with the highest tax rates for the highest concentration level. Revenue generated should be managed by autonomous entities to ensure transparency and accountability, with comprehensive reporting and oversight provided by impartially appointed oversight committees.

4. **Implement public health initiatives that educate about the risks of cannabis use.** These campaigns should include both broad public awareness and targeted outreach to high-risk populations and provide specific information about the risks of developing schizophrenia. Such campaigns should stress the risks of developing schizophrenia due to cannabis use, warning signs of early psychosis and appropriate interventions for cannabis-induced psychosis. Targeted campaigns should focus on high-risk groups including adolescents, parents, educational staff and pregnant women.[29,30] These initiatives should be required and especially visible in high-risk areas such as low-income neighborhoods and college campuses.

5. **Conduct research into the effects of cannabis use.** In alignment with the American Society of Addiction Medicine, the American Psychiatric Association[31] and the American Medical Association,[27] we call for funding of research into the long-term effects of cannabis, which are

potentially disastrous. Federal research priorities should include understanding the biological and psychosocial mechanisms of cannabis on those with and at risk of developing schizophrenia, the effects of dose and potency on cannabis-related outcomes, how cannabis use impacts the effectiveness of antipsychotic medications and the development and dissemination of effective substance-use treatments for people with schizophrenia.

6. **Finance clinical assessment and intervention.** Cannabis use not only increases the risk of developing schizophrenia, it also can harm people who already have the brain disease. However, stopping cannabis use can lead to improvements for people with schizophrenia.[1] Thus, healthcare professionals who treat those with schizophrenia must be trained in best practices to understand the risks of cannabis use, screen their patients for cannabis use and provide appropriate education, referrals and intervention.

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