

## Health Impact Assessment: Expansion of Cannabis Access via Retailer Onsite Consumption Lounges, Farm Stand Retail, and Farm Stand Onsite Consumption

**The Evolution of Cannabis Potency and Its Impact** The potency of cannabis products has drastically increased over the past decades. Tetrahydrocannabinol (THC) concentration in cannabis plant material has raised from approximately 3% in the 1970s to approximately 23% today.<sup>1</sup> The average cannabis product potency for concentrates (shatter, budder, waxes, etc.) was 57% in 2017, and is now as high as 99% THC. The widespread availability of highly potent concentrates, edibles, and vape products has contributed to higher-frequency use and increased risks of dependence and adverse mental health effects. Public awareness campaigns and potency regulations are necessary to help inform consumers about the potential dangers of high-THC cannabis.<sup>2</sup>

# MARIJUANA POTENCY

a resource produced by:  
Smart Approaches to Marijuana

3%

23%

In the 1970s, "Woodstock Weed" contained roughly 1–3% THC. Since then, potency of marijuana plant material has increased to an **average potency of 18–23% today.**

## MORE THC

56%

99%

In 2017, THC concentrates had an average THC potency of 55.7%. Today, many retailers promote and profit from products containing **up to 95–99% THC.**



## INCREASED USE

Americans 12 and older who reported using marijuana daily or almost daily increased from 6.2 million in 2009 to 15.7 million in 2023.

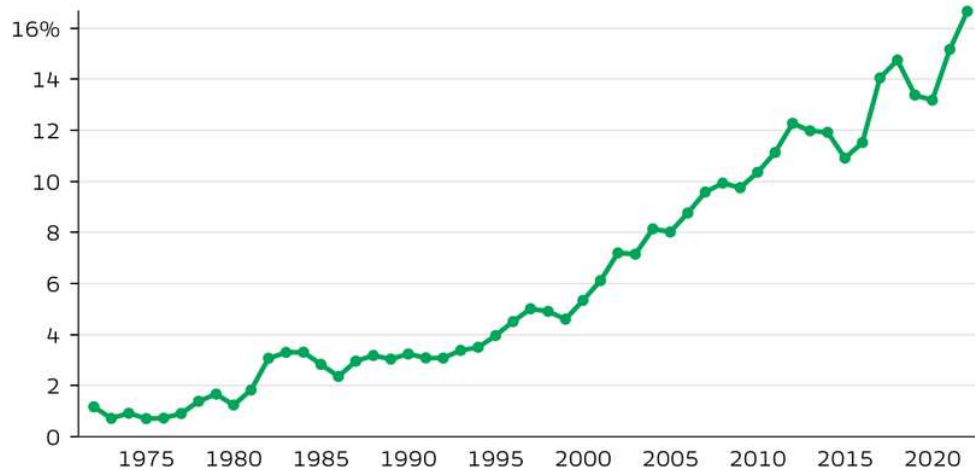
## GREATER HARM

Daily users of high potency THC are **five times** more likely to develop a severe mental illness.

High potency and high frequency marijuana use are associated with the **most severe impacts** on mental health.

## Today's cannabis is a lot stronger than its predecessors

Cannabis available today contains more than 10 times as much **THC**, on average, than it did in the 1970s



SOURCE: NIDA POTENCY MONITORING PROGRAM, UNIVERSITY OF MISSISSIPPI

**Mental and Physical Health and Cannabis Use** The link between high-potency cannabis and mental health conditions such as psychosis and schizophrenia are increasingly evident. Teens and young adults up to age 25 are particularly vulnerable to the onset of serious mental illness, and research suggests that cannabis use can trigger severe mental health conditions in individuals who may not have otherwise developed them. Recent studies suggest that cannabis use during adolescence results in impaired neural connectivity in several areas of the brain and is associated with poorer performance in schools and higher dropout rates.<sup>3</sup> Emergency room visits due to cannabinoid hyperemesis syndrome (CHS), a condition characterized by cycles of nausea, vomiting and abdominal pain caused by chronic, high-dose cannabis use, have surged.<sup>4</sup> Furthermore, the financial burden on Santa Cruz County is significant: *for combined Fiscal Years 2022-2023 and 2023-2024, 910 clients sought treatment for a primary diagnosis of cannabis use disorder, resulting in a total cost of care of \$7.7 million, of which the County (local) share was \$3.1 million.*<sup>5</sup> Local share includes a mix of County General Funds and other local funds. These costs represent services provided through the County-administered Medi-Cal Specialty Mental Health Plan and the Drug Medi-Cal Health Plan, and do not account for clients presenting for treatment with secondary and tertiary cannabis use disorder diagnoses. Onsite cannabis consumption lounges also may result in an increase to calls for service from first responder agencies, creating a potential to additionally burden the public safety system, including Emergency Medical Services (EMS), with unfunded additional calls for service.

**Youth and Cannabis Normalization: Understanding the Risks** Environment plays a key role in adolescent substance use, including through exposure to retail outlets and advertising. The availability and visibility of cannabis retailers have been shown to correlate with increased youth consumption rates. Research has shown that youth who are exposed to cannabis retailers or lounges in their vicinity are more likely to experiment with cannabis themselves. When lounges

are located near schools or places frequented by youth, it can normalize use and make consumption appear socially acceptable.<sup>6</sup>

In Santa Cruz County, California Healthy Kids (CHKS) data indicates a 7% decline in the perception of harm associated with cannabis use among 7th graders from 2019 to 2023. According to the most recent data from the CHKS Survey 2021-2023, 12% of all 11th grade Santa Cruz County students currently use cannabis. The percentage more than doubles to 24% for non-traditional/alternative education students. Latinx youth are disproportionately affected by proximity to cannabis retailers, increasing their risk of use and potential health consequences.<sup>7</sup>

**Cannabis and Impaired Driving** Driving under the influence of cannabis poses serious public safety risks. Santa Cruz County's 2024 DUI survey found that nearly 10% of individuals arrested for impaired driving had used cannabis on the day of their arrest.<sup>8</sup> Research from Canada has shown a 475.3% increase in cannabis-related traffic injuries following legalization.<sup>9</sup>

Santa Cruz County does not currently have practices in place for law enforcement to adequately detect and track cannabis impaired driving. In Washington State, among drivers involved in fatal crashes among drivers involved in fatal crashes between 2008 and 2016, 44% tested positive for two or more substances with alcohol and THC being the most common combination.<sup>10</sup> According to the Rocky Mountain High Intensity Drug Trafficking Area (RMHIDTA), in 2020, of drivers involved in fatal crashes, 24% of these drivers tested positive for cannabis and alcohol, 25% tested positive for cannabis and other drugs (no alcohol), and 13% tested positive for a combination of cannabis, alcohol, and other drugs.<sup>11</sup>

Strategies such as limiting on-site consumption, providing transportation options, expanding drug testing capacity for impaired drivers including oral fluid roadside test collection and law enforcement phlebotomy, and increasing law enforcement training in cannabis impairment detection can help mitigate these risks and enhance road safety.

**Training and Oversight for Cannabis Lounges and Onsite Consumption** Ensuring responsible cannabis consumption in onsite lounges requires proper staff training. Public Health experts nationally have many lessons learned from working successfully with responsible alcohol retailers and on-site alcohol consumption licensees to reduce risk – those harm reduction methods are evidence-based, such as license conditions on serving amounts and hours of operation, required responsible server trainings, clear enforcement and regulation, and other safety education.<sup>12</sup> Similar requirements should be considered in any cannabis ordinance amendments and regulatory practices.

Employees must actively monitor patrons, be trained to recognize signs of overconsumption and psychosis, and follow guidelines similar to alcohol server certifications to prevent overserving. Additionally, staff should be educated on the effects of different cannabis product potencies and clear limits on serving amounts. Establishing clear monitoring guidelines for consumer behavior and intervention strategies is essential in minimizing potential harm.

**Secondhand Cannabis Smoke: A Public Health Concern** Exposure to secondhand cannabis smoke presents significant health risks, comparable to those of tobacco smoke. In a recent study

examining particulate matter in the air of in-use cannabis consumption lounges, researchers found that air pollution levels were significantly elevated in the consumption area compared to outdoor air. This indicates that on site consumption of cannabis can lead to increased indoor air pollution.<sup>13</sup> Studies have linked secondhand cannabis smoke exposure to respiratory issues and cardiovascular effects. Emergency responders, staff, and patrons in cannabis consumption lounges are particularly vulnerable to prolonged exposure. Strategies such as prohibiting indoor smoking and vaping in cannabis lounges, implementing strict ventilation requirements, designating outdoor consumption areas, and developing an accessible, clear, and transparent method for logging air quality complaints from patrons, workers, neighboring businesses, and residents can help reduce these risks and protect public health.

## Endnotes

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