

HIDTA 2023 Western States Marijuana Summit

Key Findings

1) **Potency of THC Much Higher Today**

Cannabis/marijuana products sold today, including synthetic derivatives, are significantly higher in psychoactive tetrahydrocannabinol (THC). One joint in the 1990's had 50mg. of THC. In 2020, an average joint contained 200mg. of THC. Today a 1gm. bag of concentrate (wax/shatter) has 800mg. of THC. Oils and vapes are 80-99% THC and flowers/buds 30 - 40% compared to 3 - 5% THC before 2000.

2) **THC Limits/Controls in U.S. Much Higher than Other Countries**

Commercial high potency THC in Europe is 10-15%, with European countries categorizing products 15% and above as hard drugs comparable to heroin. Canada edibles cannot contain more than 10mg of THC per total package, regardless of units. CA has regulations for potency for edibles, but a much higher cap than other countries and none for smoked cannabis. Concentrates, often used in vapes, are also available in high doses of THC, increasing risks for physical and psychological complications.

3) **Lack of Medical Research on Current THC Levels**

Medically approved cannabis in research has not been tested above 10% THC and not above 150mg./day. FDA approved Marinol is only up to 15- 20 mg of THC daily. The FDA warns cannabis products can produce complications like seizures, fetal harm, and neuropsychiatric adverse reactions. Other than use for terminal illness and extreme cases of epilepsy/seizures, today's potent cannabis, contrary to claims, increases pain. The CDC warns the immunocompromised not to use any cannabis products.

4) **Increased Mental Health Impacts**

Well-conducted studies with large populations in the US, Canada, and Europe suggest risks for mental health challenges increase significantly with higher potency THC use, especially when use starts before full brain development. These risks include psychosis (including bi-polar and schizophrenia), suicidality, depression, and anxiety. Daily users consuming greater than 10% THC are 5x more likely to develop psychosis with risk increasing in younger daily users. THC was the most prevalent drug, in recent

toxicology reports, from deaths by suicide under the age of 25 in Colorado and San Diego County, California.

5) **Reality of Cannabis Use Disorder**

Cannabis Use Disorder (CUD) is recognized in the DSM5, along with alcohol and other drug dependency. Dependency has increased as THC potency/products and use increases. Symptoms can include significant cognitive challenges, cannabinoid hyperemesis (scromiting), lack of motivation, anxiety, depression, insomnia, paranoia. Physical withdrawal symptoms can include irritability, anger, aggression, decreased appetite or weight loss, restlessness, depressed mood, abdominal pain, fever, sweats, body aches, headache, insomnia. Other cannabis related medical complications can include heart arrhythmia, and a host of other adverse reactions.

6) **THC Use a Risk for Opioid/Fentanyl Misuse**

Both opioid and cannabinoid receptors are integrally related in the brain via dopamine to feel pleasure. Opioid misuse, include fentanyl use is much higher in cannabis users, and significantly higher in those using cannabis before the age of 18. Colorado opioid overdose deaths and Opioid Use Disorder (OUD) have increased sharply since marijuana commercialized in 2009 with 136% in Rx overdose deaths and 864% increase in fentanyl deaths. Cannabis use is associated with a 40% increase in suicide ideation in patients treated with Medication Assisted Treatment (MAT) for OUD.

7) **Differences in Synthetic Marijuana & Delta 8/Delta 10**

Synthetic THC produced in a lab may be sprayed on plants. These products, like Spice/K2 are not legal and have not been tested. They can also have much greater psychoactive effects, binding to 100-800x more to CB1 receptors than non-synthetic forms. Delta 8/Delta 10 THC, derived from hemp, are not FDA approved, have not been tested, and have caused hospitalizations and deaths. Many states do not have legal regulations preventing purchase over the counter in non-dispensary locations and may also allow purchase by minors until laws catch up.

- 8) **Child Poisonings Increasing**
Child poisonings from THC products increased exponentially in states with medicinal/recreational cannabis legalization. Edible cannabis products represent highest percentage of child poisonings (87% edibles, 81% from home or relative with 15% of children needing ICU care and 4% requiring intubation). Cannabis poisonings/reactions impact all ages, however.
- 9) **Older Adult Risks Have Increased**
Older adults are at increased risk for hospitalization and complications from cannabis use and drug interactions when using either THC or Cannabidiol (CBD). A CA study found ER visits involving cannabis in adults over 65 (2005-2019) increased 1804%. Complications and/or interactions can include tachycardia, excessive bleeding, seizures, cardiac deaths, lung cancer, and stroke. Surgeons should be notified of any THC or CBD use before surgery. Consult Drugs.com to check your medications for specific interactions with either CBD or THC use, even with topical use.
- 10) **Risks of Perinatal Cannabis Use**
The risk for the following adverse child outcomes increases for both pregnant and breastfeeding mothers who use cannabis: low birth weight (posing a host of risks), school-age intellectual development, autism spectrum disorder, psychopathology in middle childhood, adolescent conduct disorder, aggressive behavior/rule breaking; ADHD, anxiety, reduced immune-related gene expression in placenta. (NIH ABCD Study.)
- 11) **THC/CBD Are Fat Soluble**
Because THC/CBD are both fat-soluble, they are stored in fatty tissue, including brain, breast, and liver tissues. Cannabis users in treatment have tested positive for THC up to 6 weeks after last use. Some breastmilk samples tested of mothers using cannabis had higher THC content than the cannabis product mothers were using. Furthermore, high doses of CBD can result in liver damage.
- 12) **Increased Driving Fatalities from THC/CBD Use**
In California, marijuana is associated with more fatal automobile crashes than any other drug (cdph.gov). Because CBD and THC have a longer half-life, impairment can last for a longer period than alcohol and some other drugs/medications. Impaired

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driving can last 4 1/2 hrs. after smoking and 8 hrs. after ingesting edibles. Operating heavy equipment and other cognitive functions can be impaired when under the influence of THC/CBD.

13) **Increases in Violence, DV, IPV from THC Users**

Violent behaviors, domestic violence (DV), and intimate partner violence (IPV) have increased; especially when Cannabis Use Disorder is present, and especially with early initiation. Underdevelopment of the prefrontal cortex from cannabis use, may increase impulsive behaviors. The potency and frequency of THC use is directly associated with increases in anger and violence. In one study, the number one drug used by perpetrators of child abuse, neglect, or child fatalities was marijuana (Texas, 2020). This corresponds with Child Protective Services cases involving cannabis, though not always reported.

14) **Lack of Drug Screens/Coding**

Non-standardized testing for cannabis leads to an under reported picture of true impacts. Some current inconsistencies are lack of drug screens for cannabis (as in “Colorado screen”), physicians or Child Protective Services not reporting cannabis use, or non-existent medical/psych coding for specifics of cannabis use/THC levels. This leads to inaccurate data in reporting, including toxicology, especially in arrests, hospitalizations, and/or deaths. Furthermore, not all cannabis derivatives or synthetic forms are detectable in drug screens.

15) **Increasing Environmental Impacts**

Illegal grows have increased, even in legal cannabis states. These sites contaminate soil and water supplies and threaten wildlife from high levels of pesticide use, including rodenticides. Known water theft is so high in CA it could meet the needs of all SF residents for several months a year. High levels of trash left behind at illegal grow sites also contaminate environments.

16) **THC/CBD Products May Include Contaminants**

Most THC and CBD products are not regulated by the FDA. Impurities commonly found in products include contaminants such as mold, lead, other heavy metals, and pesticides. Randomly tested samples have found label inconsistencies in both THC and CBD product amounts. Some CBD products contained THC not declared on labeling.

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