

Methamphetamine Use during COVID-19 in Hawai'i

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Methamphetamine Use in Hawai'i: Background

Methamphetamine was synthesized in the early 20th century and was used initially for medical purposes in the 1930s for various conditions including narcolepsy, attention deficit disorder, obesity, and fatigue. In 1970, methamphetamine became a Schedule II substance under the United States (US) Drug Enforcement Administration, which reduced its use nationwide. It resurfaced in Hawai'i and areas of Southern California in 1980s. For at least 3 decades, Hawai'i has been struggling with high rates of methamphetamine use and abuse.¹ According to Quest Diagnostic Incorporated, in 2010, Hawai'i had 410% more positive workplace drug tests for methamphetamine compared to the national average.²

Aside from alcohol, methamphetamine is Hawai'i's most prevalent drug of misuse among adults.³ Hawai'i also has one of the highest rates of methamphetamine-related convictions. In 2015, methamphetamine played a role in nearly 94% of drug convictions in federal court.⁴ Close to half of those admitted to Hawai'i's treatment facilities stated that methamphetamine was their drug of choice, compared to alcohol (20%-30%) and marijuana (approximately 17%) for the years 2010 – 2016.³ In the US only 10% of people with substance use disorder (SUD) who require treatment are treated.⁵

Much of the US struggles with high rates of opioid abuse, which have gathered more attention than methamphetamine abuse. In comparison to the mainland, Hawai'i's opioid use has been less problematic. According to estimates for 2015-2018 from the Substance Abuse and Mental Health Services Administration (SAMHSA), an estimated 4000 people in Hawai'i, or 0.3% of the state population, used heroin during the past year.⁶ In the US in 2018, there were 46802 overdose deaths attributed to opioids out of 67367 total overdose deaths (approximately 70%), while in Hawai'i there were 59 overdose deaths due to opioids out of the total 213 overdose deaths (approximately 28%).⁷

The challenges of methamphetamine abuse are distinct from those of opioids. Unlike heroin, a short-acting opioid which may require frequent administration (sometimes 4 or 5 times per day), methamphetamine is a powerful stimulant with long acting effects (10-20 hours).⁸ Due to its stimulant property, users may suffer from vascular complications including high blood pressure, heart ischemia, and cerebral vascular accidents. Methamphetamine is a public safety concern because people who are intoxicated on methamphetamine often have impaired judgement, putting them at very high risk for traumatic accidents. The use of methamphetamine may lead to serious medical conditions, which include damage to the heart, as well as permanent neurologic and psychological impairment. Therefore, methamphetamine use is a serious public health problem, placing an immense burden on Hawai'i's limited healthcare resources including utilization of emergency rooms, acute hospital beds, and mental health and substance use treatment facilities.⁹ A recent report from the Centers for Disease Control and Prevention stated that overdose deaths in the US involving psychostimulants, including methamphetamine, increased by 34.8% during the COVID-19 pandemic.¹⁰

Methamphetamine Use in Hawai'i in COVID-19

In 2020, the COVID-19 pandemic changed the world. It led many to suffer physically, emotionally, socially, and financially. The US continues to have the greatest number of COVID-19 cases and COVID-19 related deaths in the world.¹¹ The economic crisis resulting from COVID-19 has been devastating as well, where business closures and partial re-openings cost the US trillions of dollars, according to a recent study conducted by the University of Southern California.¹² For Hawai'i, the decrease in visitors due to the pandemic devastated the \$18 billion tourism industry, a foundation of the state's economy.¹³ The financial crisis from the pandemic has affected many individuals, even those who have maintained their employment. Almost 40% of survey participants in the US reported in a Kaiser Family

Foundation survey that the pandemic has negatively impacted their mental health.¹⁴ In another recent survey by the Addiction Policy Forum, 20% of 1079 people with SUD reported an increase in substance use during COVID-19.¹⁵

According to Hawai'i High Intensity Drug Trafficking Area (HIDTA), the average price of heroin in the state has been estimated to be \$120 - \$160 per gram, while methamphetamine costs \$40 per gram.¹⁶ Some people with opioid use disorder may purchase up to 1 gram or more per day depending on the purity of the substance and the severity of their addiction. Some individuals may require several doses of heroin a day to prevent withdrawal. Maintaining the habit of drug use can be very expensive and stressful, especially for those who are addicted.

The authors' respective clinical practices in Oahu are at located a tertiary care hospital where a diversity of people suffering from SUD are seen. Although there are no clear statistics, we have recently seen several patients with SUD who are using less heroin and more methamphetamine in the midst of the COVID-19 pandemic. Since it was more difficult to obtain heroin, some reported that although methamphetamine was not the drug of choice, it was "better than nothing." Some claimed that they were using methamphetamine to relieve their pain. However, unlike opioids, methamphetamine has no significant analgesic efficacy. In fact, heroin and methamphetamine work differently. Heroin is a central nervous system depressant that can cause drowsiness, bradycardia and at times respiratory depression,¹⁷ while methamphetamine is a stimulant that can cause increased wakefulness, tachycardia and hypertension.¹⁸ Both, however, have a common pathway of increasing dopamine, which is a major transmitter in the reward circuitry involving various parts of the brain, including the nucleus accumbens.¹⁹

Conclusions

Hawai'i has battled methamphetamine for a long time. Unfortunately, with the recent pandemic, there may be a rise in the use of methamphetamine, accompanied by its complications. Unlike opioid use disorder (OUD) where medication assisted treatment (MAT) is available, methamphetamine use disorder is notoriously difficult to treat. There is a need to emphasize prevention and early intervention.⁹ In collaboration with various agencies and professionals, including social workers, law enforcement officials, school teachers, and state workers, educating every level of society, including children, about the dangers of methamphetamine use is warranted. Consulting Hawai'i Coordinated Access Resource Entry System (HI CARES), a statewide referral program for early intervention and treatment for people with SUD, may be a simple initial step.²⁰ For health care professionals, screening for substance use on their patients is a must. Ultimately, treating underlying OUD with MAT may prevent these patients from using methamphetamine,

for methamphetamine was "better than nothing," during the time heroin was being sought. Health care and public health professionals in Hawai'i should be sensitive to a potential rise in methamphetamine use associated with the pandemic.

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