Substance Abuse and Mental Health Services Administration
SAMHSA
1 Choke Cherry Road • Rockville, MD 20857
www.samhsa.gov • 1-877-SAMHSA-7 (1-877-726-4727)

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Dear Colleague:

Marijuana is the most commonly used illicit substance in the United States. This letter provides information about potential risks associated with marijuana use in patients being treated for opioid use disorders with medication assisted treatments such as methadone, buprenorphine, and naltrexone.

Under section 202 of the Controlled Substances Act (CSA), marijuana is listed as a Schedule I controlled substance.[1] Schedule I includes those substances that have a high potential for abuse, have no currently accepted medical use in the United States, and lack accepted safety for use under medical supervision.[2]

SAMHSA recognizes that new state policies regarding both medical and recreational use of marijuana are confronting opioid treatment providers (OTPs) with an increasing number of patients who are using marijuana and additional questions from patients and medical colleagues alike about the potential therapeutic and adverse health effects.

To date, twenty-two states and the District of Columbia have passed laws allowing marijuana use as a treatment for certain medical conditions, two of these states (Colorado and Washington) have legalized marijuana for both medicinal and adult recreational use.

Marijuana refers to the dried leaves, flowers, stems, and seeds from the hemp plant *Cannabis sativa*, which contains the psychoactive (mind-altering) chemical delta-9-tetrahydrocannabinol (THC), as well as other related compounds. This plant material can also be concentrated in a resin called hashish or a sticky black liquid called *hash oil. The term "medical marijuana" refers to the use of the whole unprocessed marijuana plant or its crude extracts to treat or alleviate symptoms associated with certain medical conditions. Marijuana is not approved as a medicine by the Food and Drug Administration (FDA).*

- Initial evidence indicates that marijuana (THC) use increases the probability that patients will engage in activities that put them at higher risk of relapse to opioid use, other health problems, other related illicit activities, and legal problems.[3]

[1] 21 U.S.C. 812
[2] 21 U.S.C. 812(b)(l)(A)-(C)
[3] Center for Substance Abuse Treatment.; *Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs:* Treatment Improvement Protocol (TIP) Series 43.

- There is an association between regular marijuana use and anxiety and depression. There is also a stronger link between marijuana use and psychoses (including schizophrenia), particularly if users have a preexisting vulnerability to that disease. Marijuana can also worsen the course of schizophrenia.[4] [5]

- Approximately 9% of people who experiment with marijuana will become addicted to it; among those who start using the drug in their teens, the number goes up to about 1 in 6, and among daily users to 25-50%.[6]

- Early (animal) studies show that early THC exposure can weaken the dopamine system in the reward areas of the brain—an effect that, in humans, would explain why early and chronic marijuana use may increase the likelihood of developing other substance use disorders later in life.[7] This potential risk factor could further complicate the treatment course among those already struggling with substance abuse disorders.

- Marijuana significantly impairs coordination and reaction time and is the illicit drug most frequently found to be involved in automobile accidents, including fatal ones.[8] Controlled driving simulation studies have found a direct relationship between blood THC concentration and impaired performance.[9] The recognition of this effect along with known methadone induced sedation is a major concern among OTP clients that drive.

FDA has approved two drugs for human use which contain active ingredients that are present or similar to those present in botanical marijuana: Marinol (synthetic delta-9-tetrahydrocannabinol, or THC, psychoactive component) and Cesamet (synthetic the active ingredient nabilone, which has a chemical structure similar to THC). Both Marinol and Cesamet were approved in 1985 for the treatment of nausea and vomiting associated with cancer chemotherapy in patients who had failed to respond adequately to conventional antiemetic treatments. In 1992 Marinol received additional approval for the treatment of anorexia associated with weight loss in patients with AIDS.

As with the use of opioid analgesics and benzodiazepines, OTPs should alert patients and their healthcare professionals authorizing the use of marijuana use about potential adverse drug-drug While legal, social and political questions surrounding the use of marijuana may evolve over

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[4] Di Forti, M. et al. (2012) Confirmation that the AKT1 (rs2494732) Genotype Influences the Risk of Psychosis in Cannabis Users. Biol Psychiatry 72:811–816

[5] Casadio, P., Fernandez, C., Murray, R.M., Di Forti, M. (2011) Cannabis use in young people: The risk for schizophrenia. Neuroscience and Biobehavioral Reviews 35:1779–1787.

[6] Lopez-Quintero C, Perez de los Cobos J, Hasin DS, et al. Probability and predictors of transition from first use to dependence on nicotine, alcohol, cannabis, and cocaine: results of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). Drug Alcohol Depend 2011; 115:120-30.

[7] Agrawal A, Neale MC, Prescott CA, Kendler KS (2004) A twin study of early cannabis use and subsequent use and abuse/dependence of other illicit drugs. Psychol Med 34:1227-1237

[8] Brady JE, Li G (2014) Trends in Alcohol and Other Drugs Detected in Fatally Injured Drivers in the United States, 199-2010," American Journal of Epidemiology [Epub ahead of print].

[9] Lenné M, Dietze P, Triggs T, Walmsley S, Murphy B, Redman J. The effects of cannabis and alcohol on simulated arterial driving: Influences of driving experience and task demand. Accid Anal Prev 2010; 42:859-66.

time, SAMHSA will continue to support OTP providers' efforts in delivering safe and high-quality care that produces the best possible outcomes for all persons with opioid use disorders. For additional information about the above documentations please contact Anthony Campbell RPH, D.O., Anthony.campbell@samhsa.hhs.gov.

Sincerely,

[Signed by H. Westley Clark, M.D., J.D., M.P.H., CAS, FASAM.]

H. Westley Clark, M.D., J.D., M.P.H., CAS, FASAM
Director
Center for Substance Abuse Treatment