

NIDA Director's Report to the NIH Collaborative Research on Addiction (CRAN) Council

Nora D. Volkow, M.D.

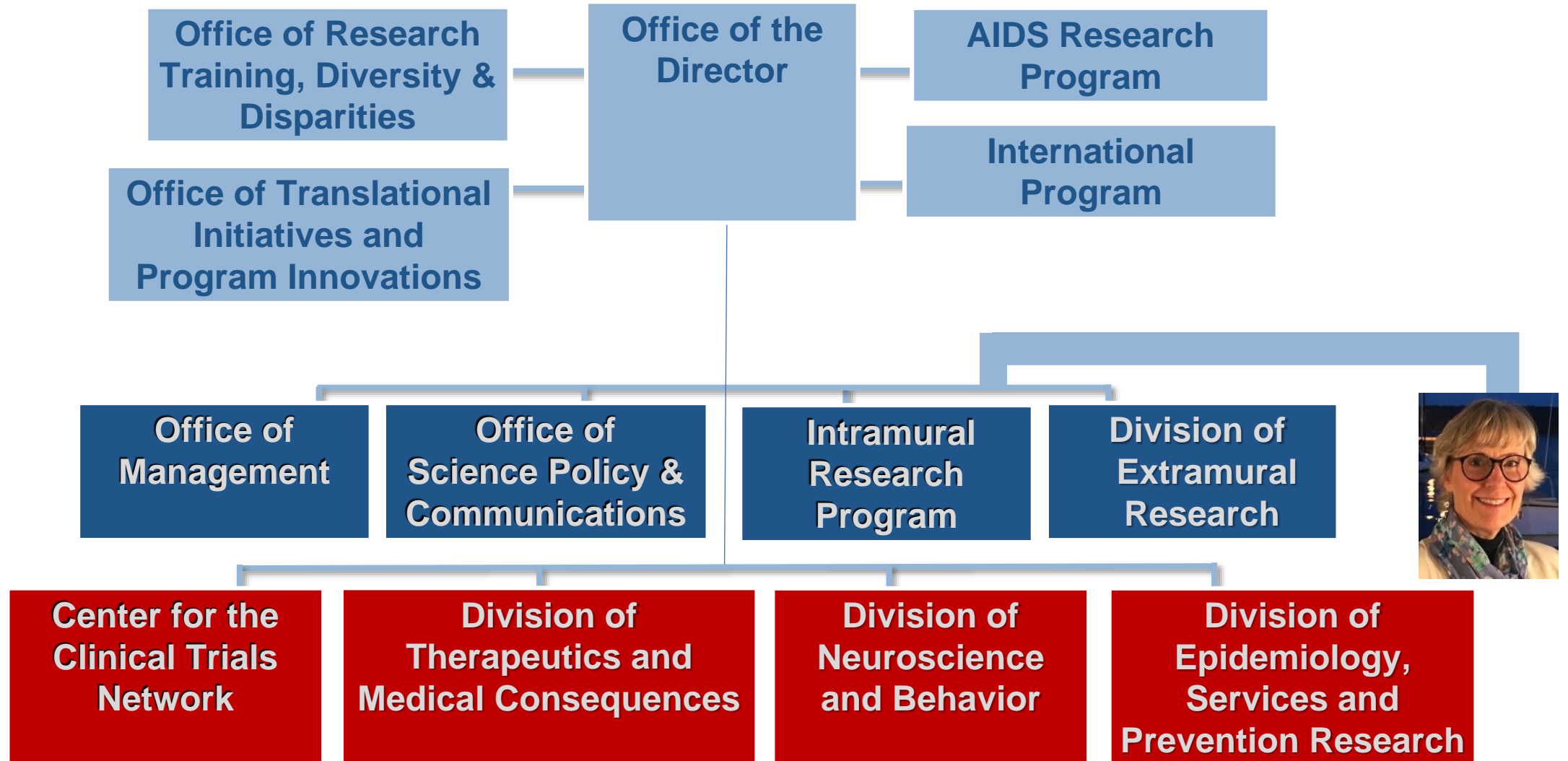
Director

National Institute on Drug Abuse

National Institutes of Health

May 12, 2021

NIDA



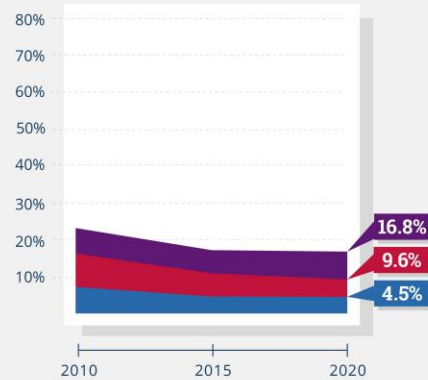
Drug Use Trends Among U.S. Teens

Monitoring the Future 2020 Survey Results

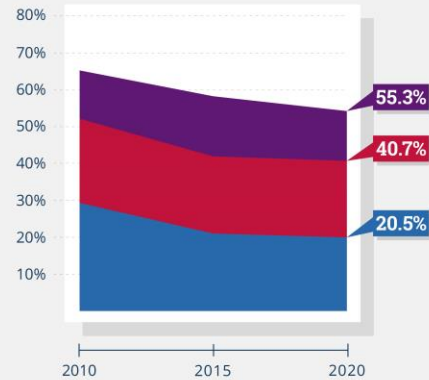
Gradual Decline in Alcohol Use Slows

Long-term trend of decreasing alcohol use among all grades levels off.

Binge Drinking*



Past-Year Alcohol Use

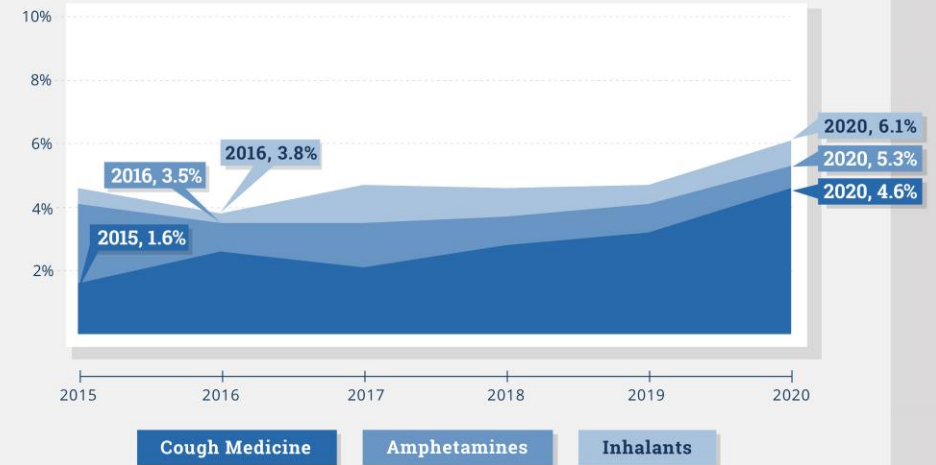


*5 or more drinks in a row in the past two weeks

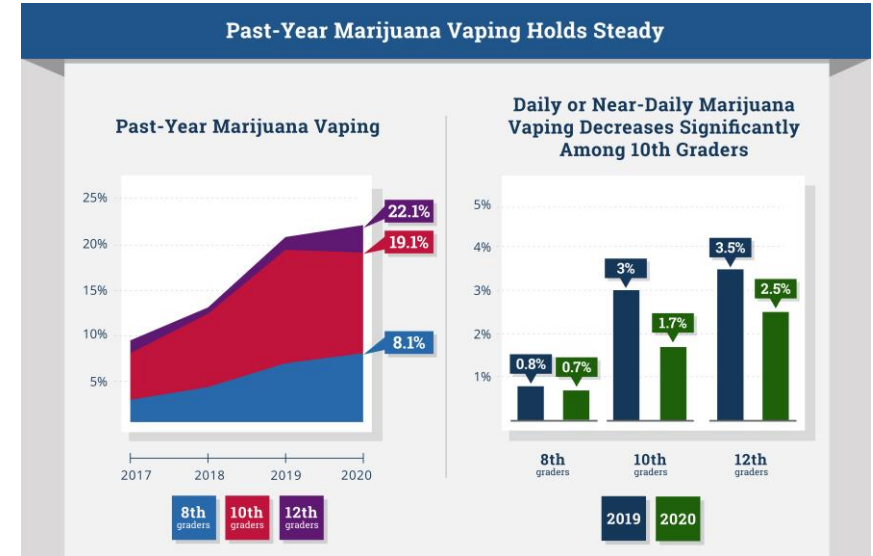
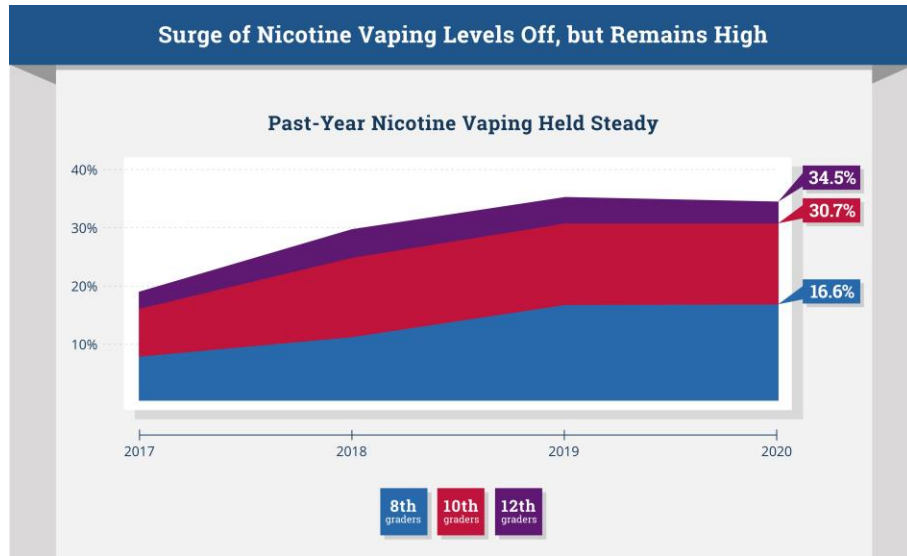


Amphetamine, Inhalant & Cough Medicine Misuse Trending Upward Among Eighth Graders

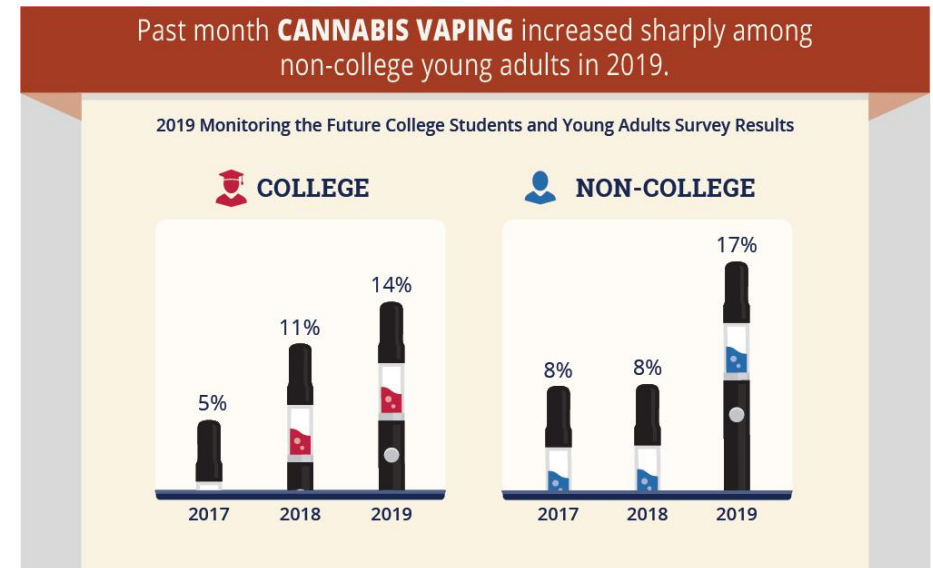
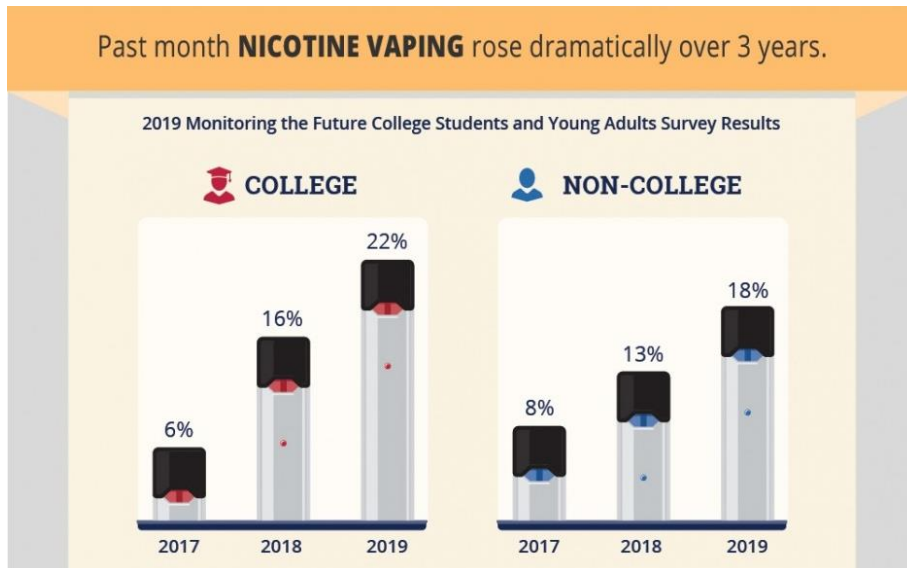
Past-Year Substance Misuse Among Eighth Graders



Vaping Among U.S. Teens: MTF 2020 Survey Results

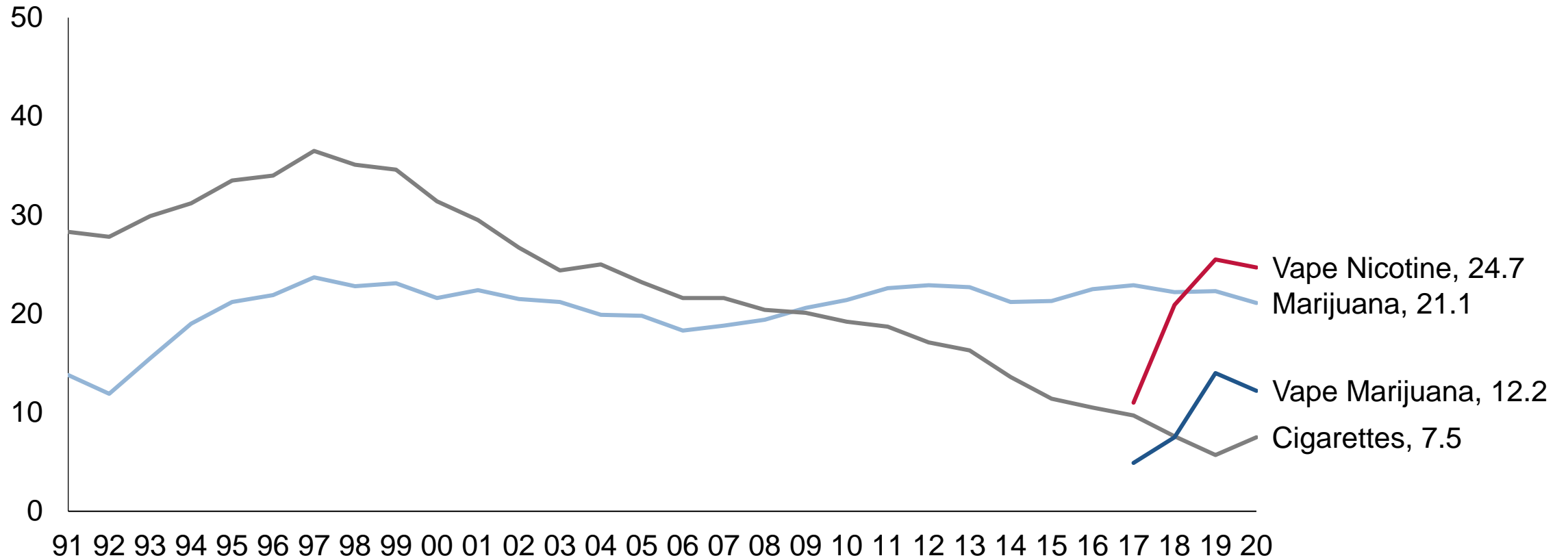


Vaping Among Young Adults (19-22): 2019 MTF College Students and Young Adults



More U.S. youth vape than smoke combustible cigarettes

Percentage of students reporting vaping, marijuana, and cigarette use in past month, 12th Grade



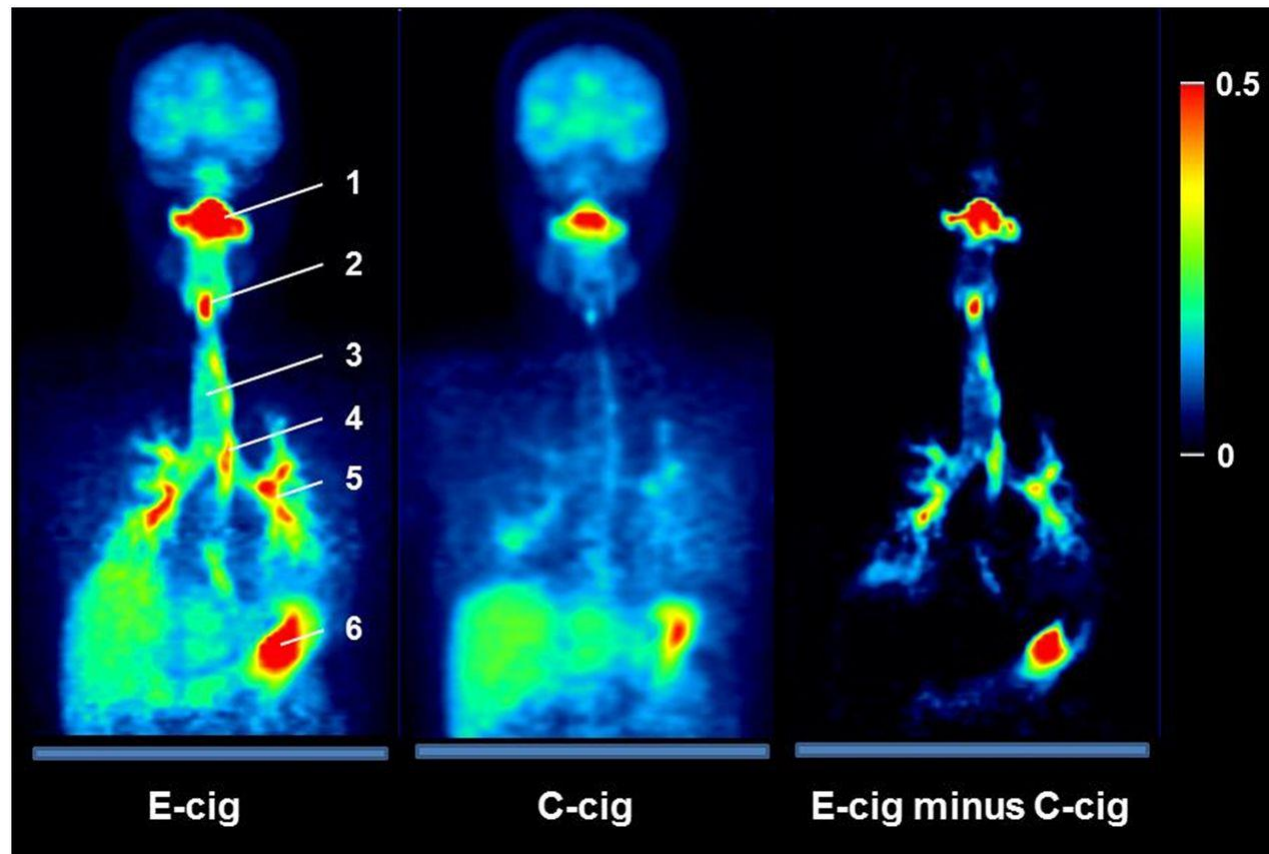
Source: University of Michigan, 2020 Monitoring the Future Study

E-cigarette use may lead to combustible cigarette use in youth

- In a prospective study of 14-year-old students, E-cigarette use predicted onset of:
 - Any Combustible Tobacco Product: 2.75 times more likely (AOR-adjusted odds ratio)
 - Smoking Cigarettes 1.73 more likely (AOR)
- In a prospective study of 12-15-year-old youth, E-cigarette use predicted onset, 2 years later of:
 - Ever Using Cigarettes: 4.09 times more likely (AOR)
 - Currently Smoking Cigarettes: 2.75 times more likely (AOR)

Health effects of vaping

Upper Pulmonary Nicotine Deposition after E-cig and C-cig.



Respiratory symptoms including cough, phlegm, asthma, bronchitis

Lung injury from exposure to metals and chemicals including flavorings and humectants

EVALI

Long Term effects still being studied

Home » About NIDA » Nora's Blog » COVID-19: Potential Implications for Individuals with Substance Use Disorders

COVID-19: Potential Implications for Individuals with Substance Use Disorders

April 06, 2020

As people across the U.S. and the rest of the world contend with coronavirus disease 2019 (COVID-19), the research community should be alert to the possibility that it could hit some populations with substance use disorders (SUDs) particularly hard. Because it attacks the lungs, the coronavirus that causes COVID-19 could be an especially serious threat to those who smoke tobacco or marijuana or who vape. People with opioid use disorder (OUD) and methamphetamine use disorder may also



Image by [CDC/Alissa Eckert, MS; Dan Higgins, MAMS](#)
This illustration, created at the Centers for Disease Control and Prevention (CDC), shows a coronavirus particle. The particle is spherical with a textured surface and a core.

Dr. Nora Volkow: Remarks and Video Highlights



Marijuana as a Cure for Opioid Use? Nation's Top

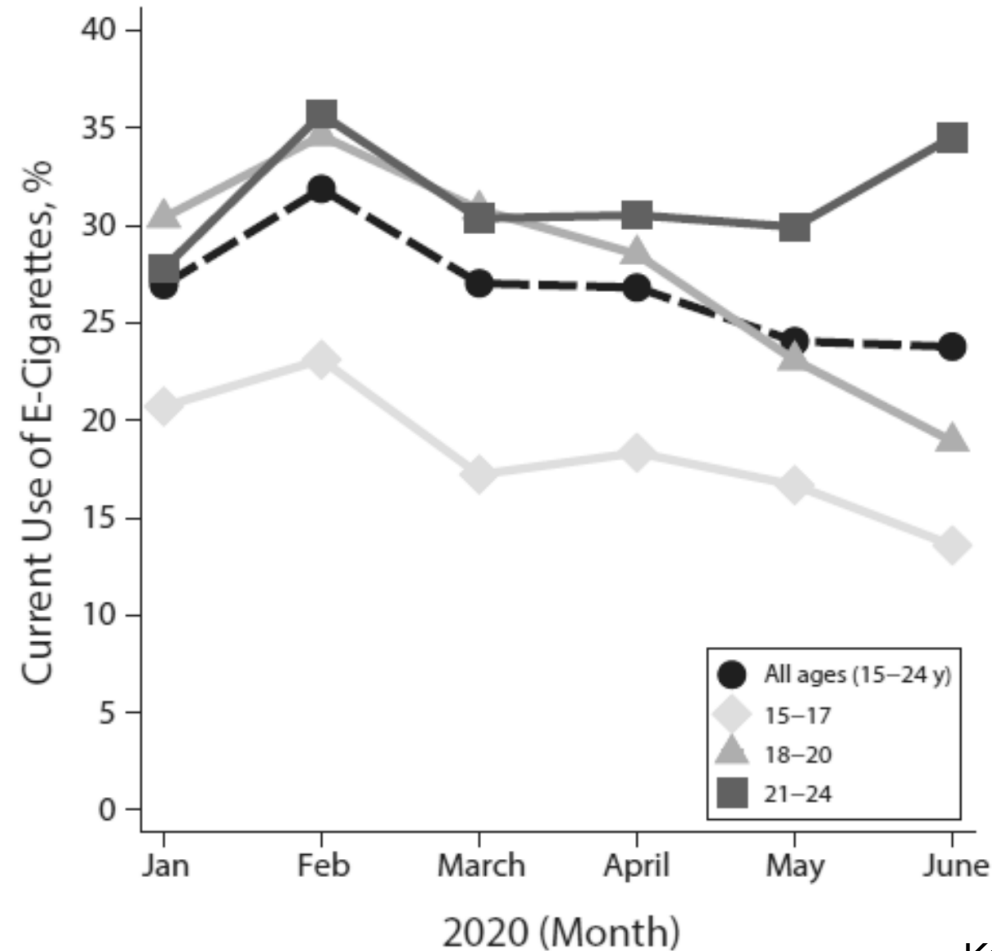
“Vaping, like smoking, may also harm lung health. ... (Emerging) evidence suggests that exposure to aerosols from e-cigarettes harms the cells of the lung and diminishes the ability to respond to infection.”

More COVID-19 Diagnoses among Teens and Young Adults Who Vape or Who Vape and Smoke Cigarettes

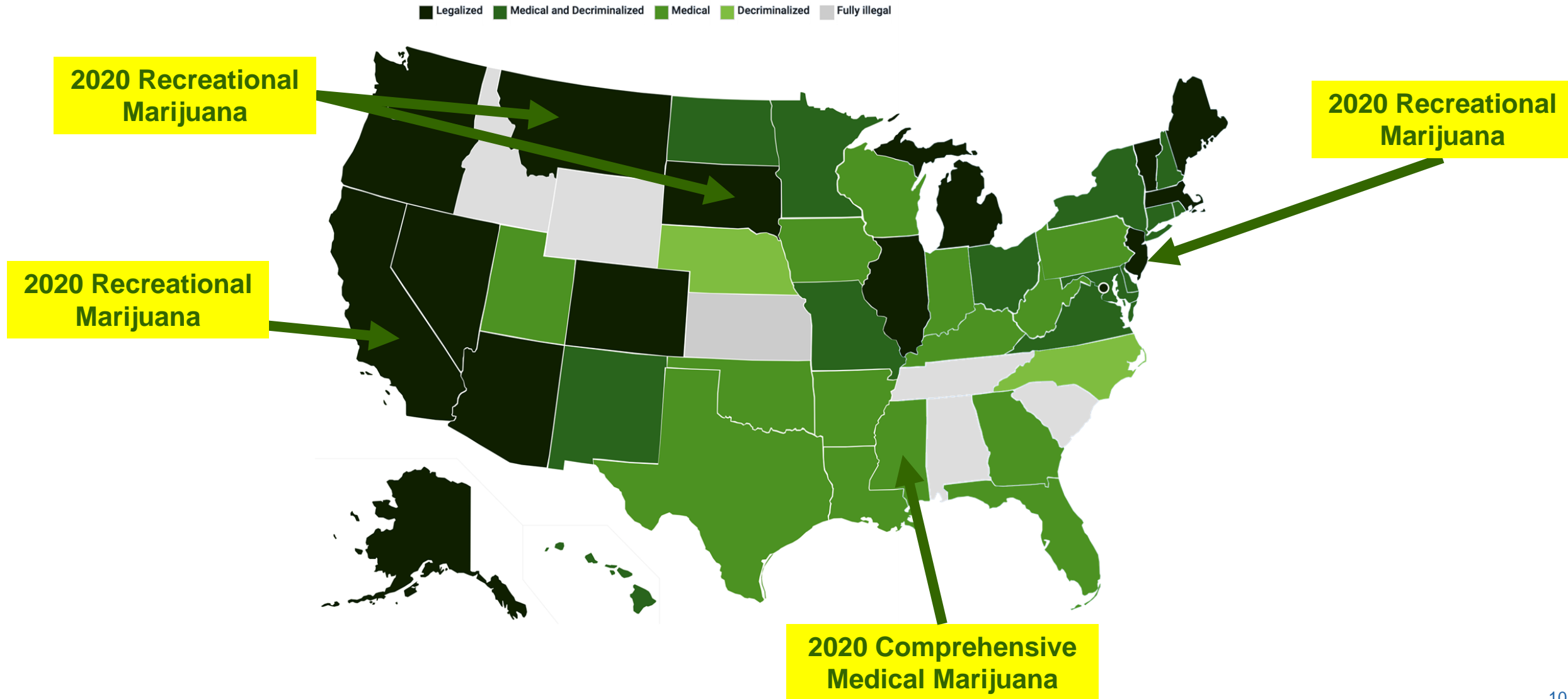
- Online survey of adolescents and young adults (n = 4,351) aged 13-24 years conducted in May 2020.
- Past 30-day use and ever-use of e-cigarettes and dual use were associated with COVID-19 testing and positive diagnosis.

E-Cigarette Use Among Youths and Young Adults During the COVID-19 Pandemic

Past-30-Day E-Cigarette (n = 5164)



Legal Status of Cannabis Varies by State



Health effects of THC exposure

Short Term Effects

- THC acutely impairs memory, attention and motor coordination,
- People in withdrawal from THC experience insomnia, irritability, and dysphoria
- THC can trigger acute psychosis

Long-Term Effects

- Cannabis use disorders (up to 20% in adolescents and up to 10% in young adults (Volkow et al., 2021))
- Impairments in school performance and higher likelihood of school drop out
- Chronic psychosis, sleep impairments, loss of motivation

Notice of Information: Establishment of a Standard THC Unit to be Used in Research

<https://grants.nih.gov/grants/guide/notice-files/NOT-DA-21-049.html>

Notice Number: **NOT-DA-21-049**

Key Dates:

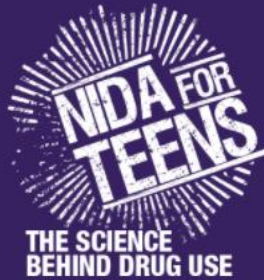
Release Date: May 7, 2021

Issued by: National Institute on Drug Abuse (NIDA); National Heart, Lung and Blood Institute (NHLBI); National Institute of Mental Health (NIMH); National Cancer Institute (NCI)

Purpose:

Cannabis is a plant containing more than 500 chemicals, and more than 100 cannabinoids. Delta-9-tetrahydrocannabinol (THC) is the main cannabinoid responsible for the psychotropic and addictive properties of cannabis. Inconsistency in the measurement and reporting of THC exposure has been a major limitation in studies of cannabis use, making it difficult to compare findings among studies. A standardized measure of THC in cannabis products is necessary to advance research by providing greater comparability across studies of both its adverse effects and potential medical uses. The purpose of this Notice is to inform research applicants of a new requirement to measure and report results using a standard THC unit in all *applicable* human subjects' research, beginning May 7, 2021. A standard THC unit is defined **as any formulation of cannabis plant material or extract that contains 5 milligrams of THC**. This requirement will apply to applications proposing research on cannabis or its main psychotropic constituent THC.

NIDA for TEENS Website



NIDA for Teens

The trusted source for science-based information on teen drug use and its effects.

Get The Facts



Teens

Get the latest on how drugs affect the brain and body. Featuring videos, games, blog posts and more!



Teachers

Lessons, activities, and drug facts to educate teens about the effects and consequences of drug use.



Parents

Get information to help you talk with your teens about drugs and their effects, and learn where to go to...

THANK YOU!