



Fentanyl, Methamphetamine, Cocaine & Pain Pills: Trends and Patterns in Today's Opioid Crisis

Colin Planalp, MPA
Senior Research Fellow, SHADAC

University of Minnesota Opioid Advisory Task Force
September 21, 2023



Robert Wood Johnson Foundation

Presenter




Colin Planalp, MPA
SHADAC Senior Research Fellow

Background on the U.S. Opioid Crisis

- Roots in the 1990s, with concerns about under-treated pain
- Fueled in early days by prescription opioid painkillers, including OxyContin
- Deaths from prescription painkillers declared an “epidemic” by the U.S. Centers for Disease Control and Prevention in 2011

VitalSigns™
November 2011

Prescription Painkiller Overdoses in the US

15,000 
Nearly 15,000 people die every year of overdoses involving prescription painkillers.

1 in 20
In 2010, 1 in 20 people in the US (age 12 or older) reported using prescription painkillers for nonmedical reasons in the past year.

1 Month
Enough prescription painkillers were prescribed in 2010 to medicate every American adult around-the-clock for a month.

Deaths from prescription painkillers* have reached epidemic levels in the past decade. The number of overdose deaths is now greater than those of deaths from heroin and cocaine combined. A big part of the problem is nonmedical use of prescription painkillers—using drugs without a prescription, or using drugs just for the “high” they cause. In 2010, about 12 million Americans (age 12 or older) reported nonmedical use of prescription painkillers in the past year.

Enough prescription painkillers were prescribed in 2010 to medicate every American adult around-the-clock for a month. Although most of these pills were prescribed for a medical purpose, many ended up in the hands of people who misused or abused them.


Improving the way prescription painkillers are prescribed can reduce the number of people who misuse, abuse or overdose from these powerful drugs, while making sure patients have access to safe, effective treatment.

* “Prescription painkillers” refers to opioid or narcotic pain relievers, including drugs such as Vicodin (hydrocodone), OxyContin (oxycodone), Opium (oxy morphine), and methadone.

→ See page 4

Want to learn more? Visit <http://www.cdc.gov/vitalsigns>

National Center for Injury Prevention and Control
Division of Unintentional Injury Prevention



Data and methods

Data

- Drug overdose death rates from the U.S. National Vital Statistics System (NVSS), obtained through the Centers for Disease Control and Prevention's (CDC) Wide-ranging Online Data for Epidemiologic Research (WONDER) system
- Age-adjusted rates of death per 100,000 people (not age adjusted for age- and metropolitan status-stratified data)

Methods

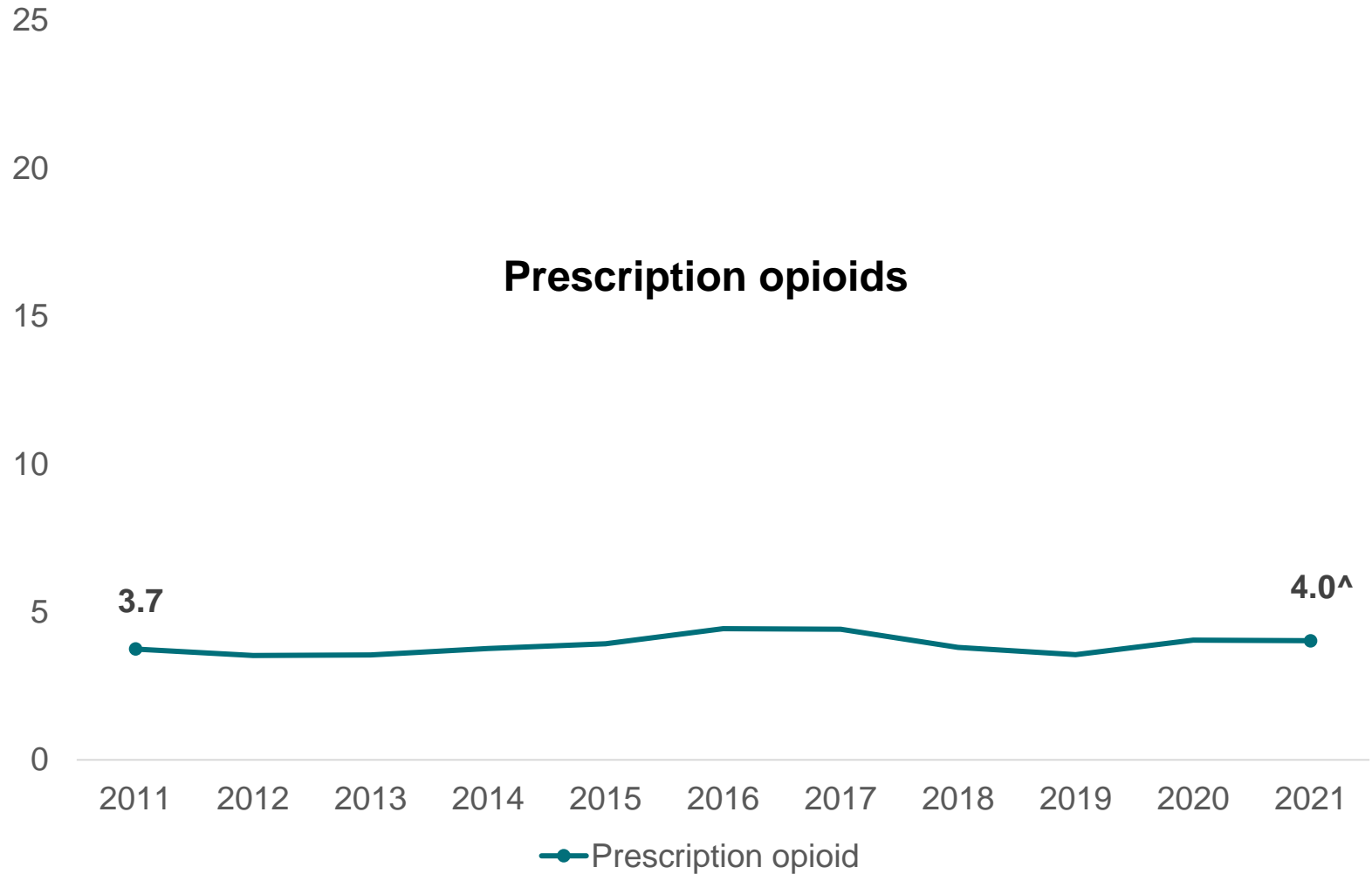
- *t*-tests using provided standard errors to measure statistical significance in comparing rates over time and between sub-population estimates

Data labeling conventions

- Fentanyl: Synthetic opioids other than methadone (e.g., fentanyl and analogues, tramadol)
- Methamphetamine: Psychostimulants with abuse potential (e.g., methamphetamine, caffeine, MDMA)
- Prescription opioids: Natural and semi-synthetic opioids (e.g., morphine, oxycodone)
- Cocaine: Cocaine exclusively

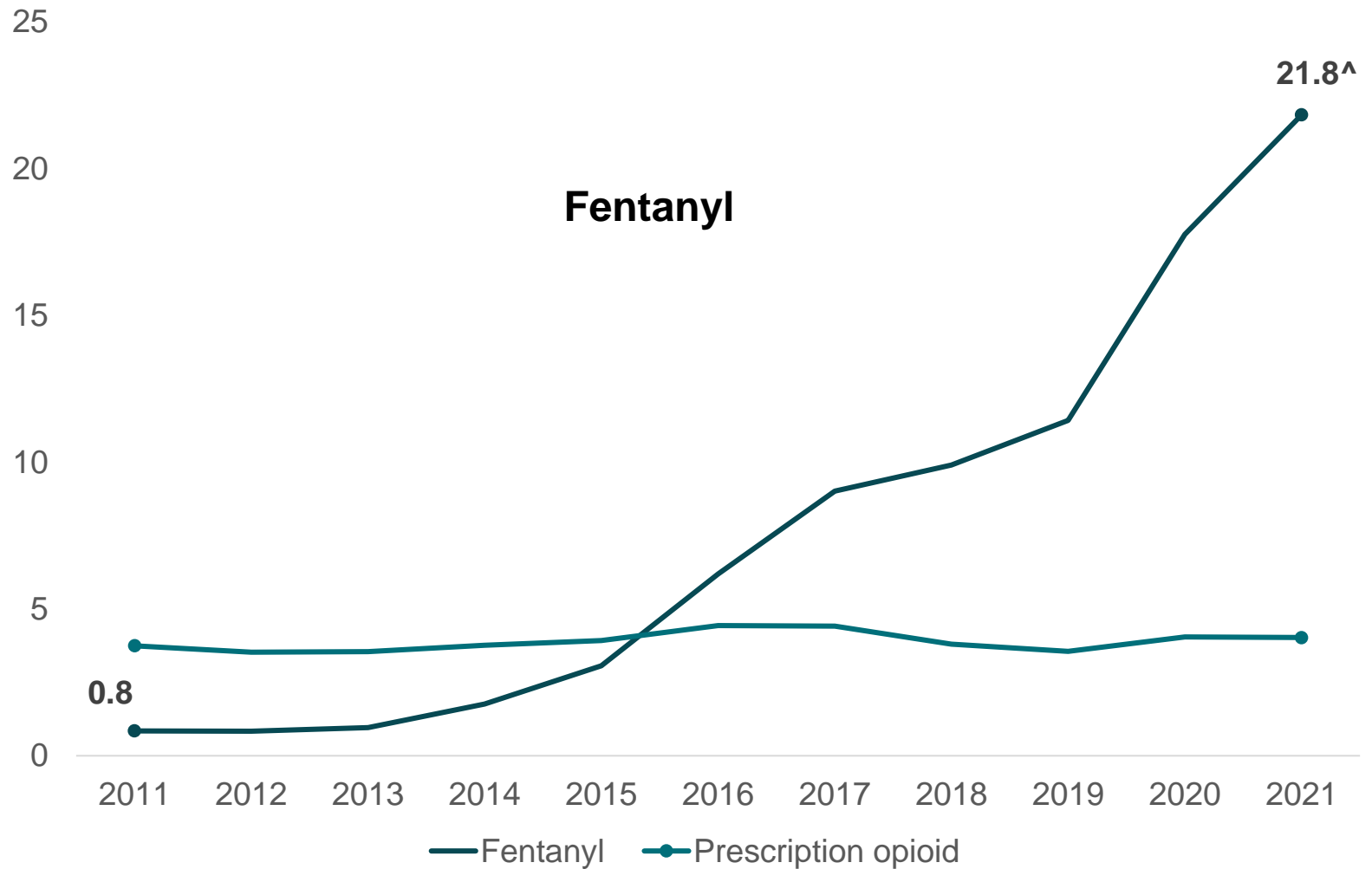
Trends in the Opioid Crisis

U.S. Overdose Death Rates since 2011



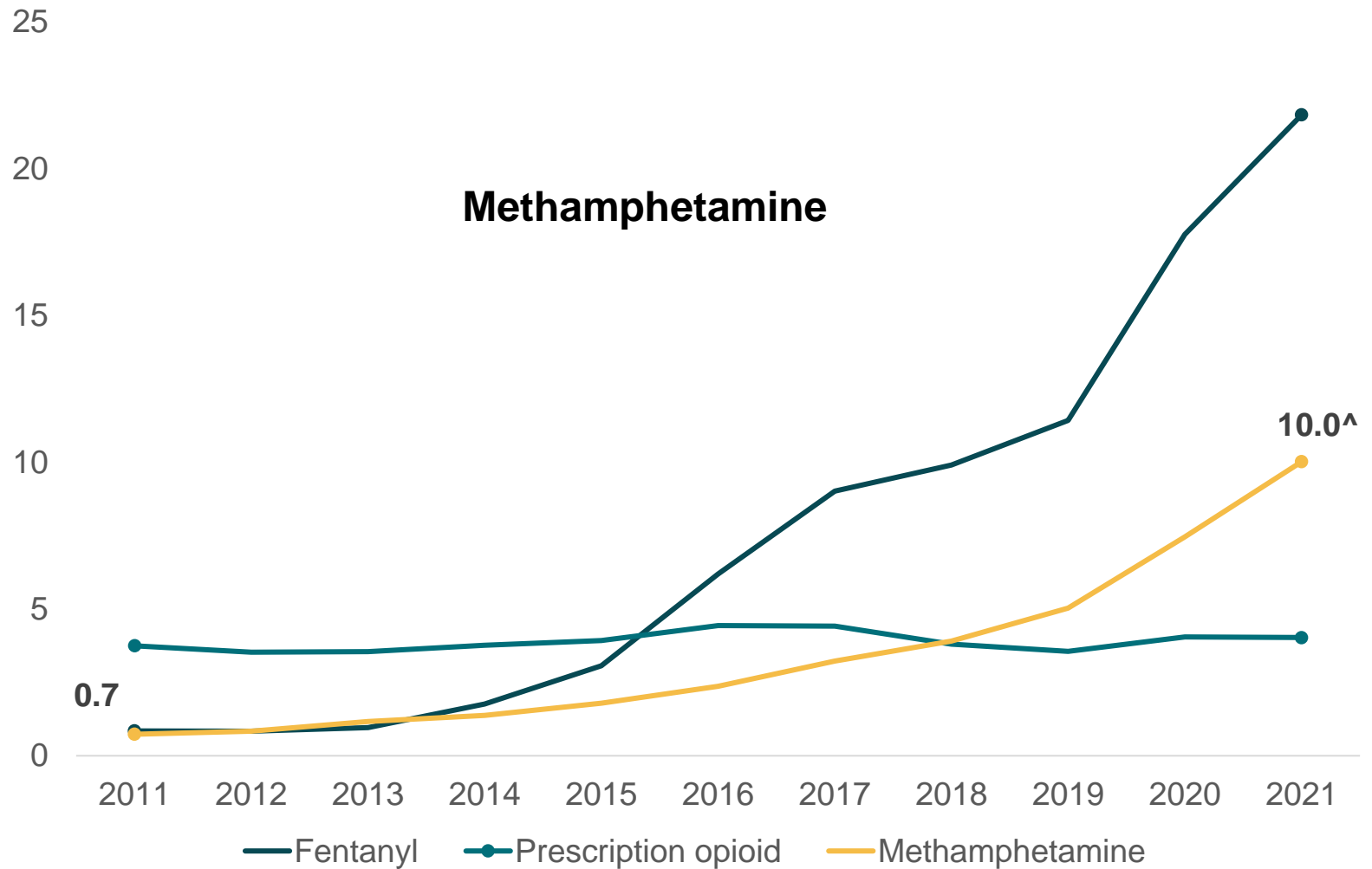
[^] Statistically significant increase since 2011 at the 95% level.
Source: SHADAC analysis of NVSS data

U.S. Overdose Death Rates since 2011



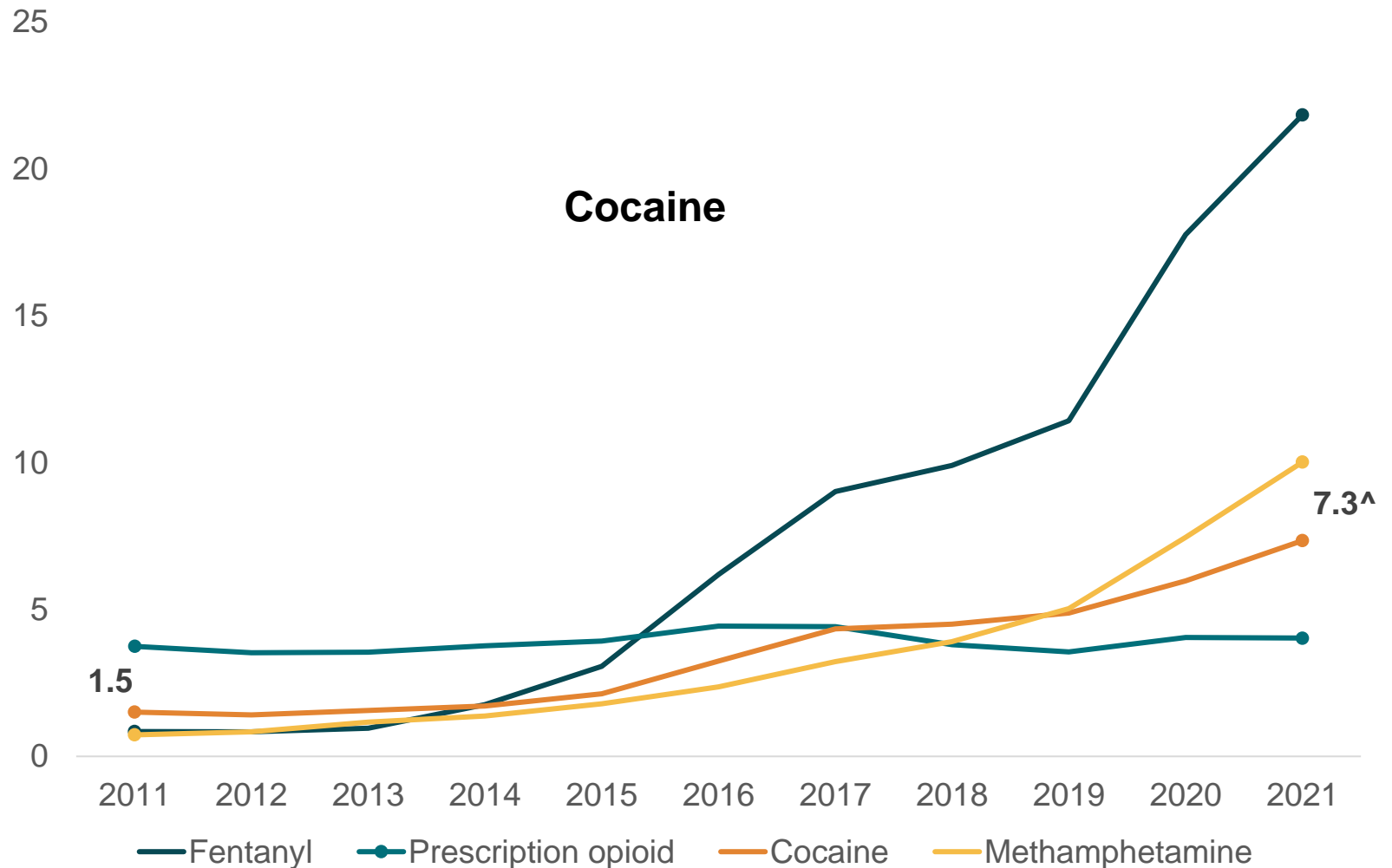
[^] Statistically significant increase since 2011 at the 95% level.
Source: SHADAC analysis of NVSS data

U.S. Overdose Death Rates since 2011



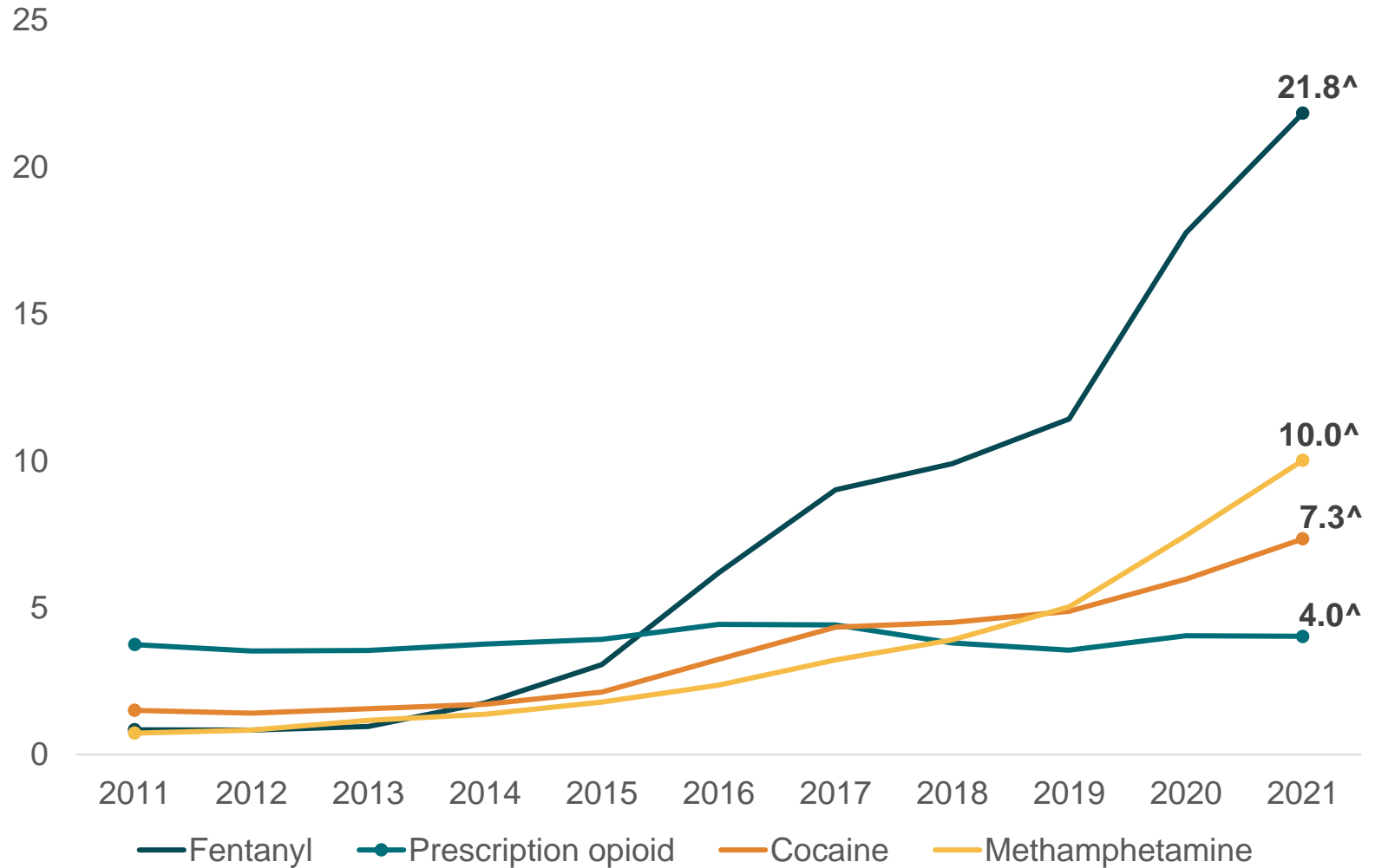
[^] Statistically significant increase since 2011 at the 95% level.
Source: SHADAC analysis of NVSS data

U.S. Overdose Death Rates since 2011



[^] Statistically significant increase since 2011 at the 95% level.
Source: SHADAC analysis of NVSS data

U.S. Overdose Death Rates since 2011

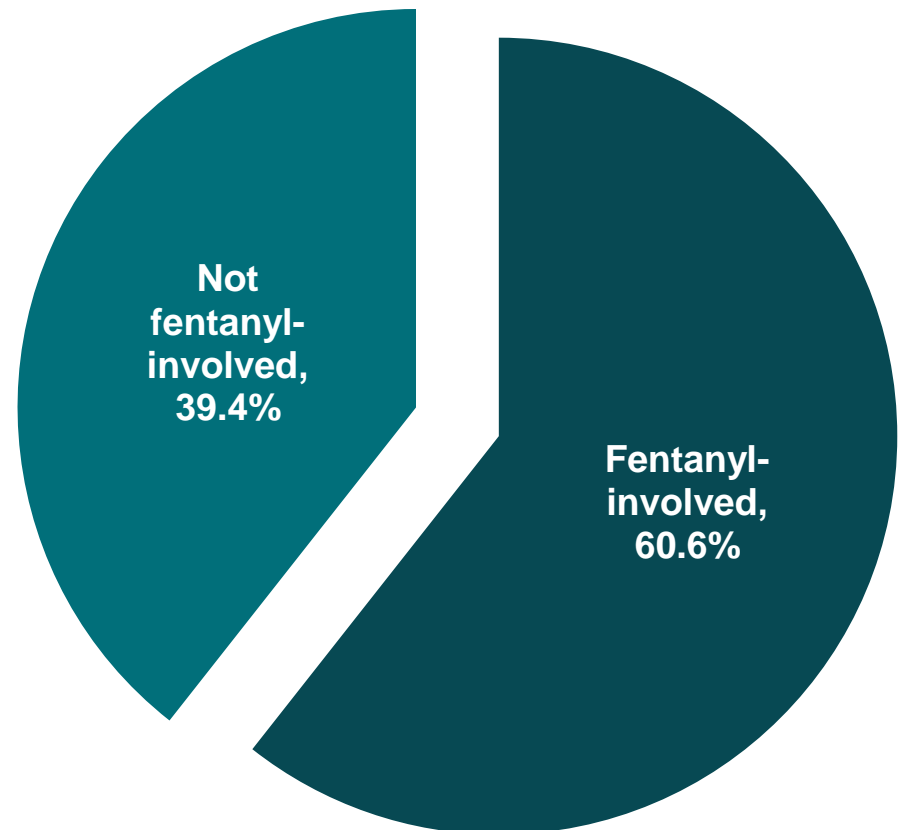


^ Statistically significant increase since 2011 at the 95% level.
Source: SHADAC analysis of NVSS data

Hidden Tentacles of Fentanyl

Prescription Opioids

Total deaths	Not involving fentanyl
4.0 deaths per 100,000 people	1.6 deaths per 100,000 people

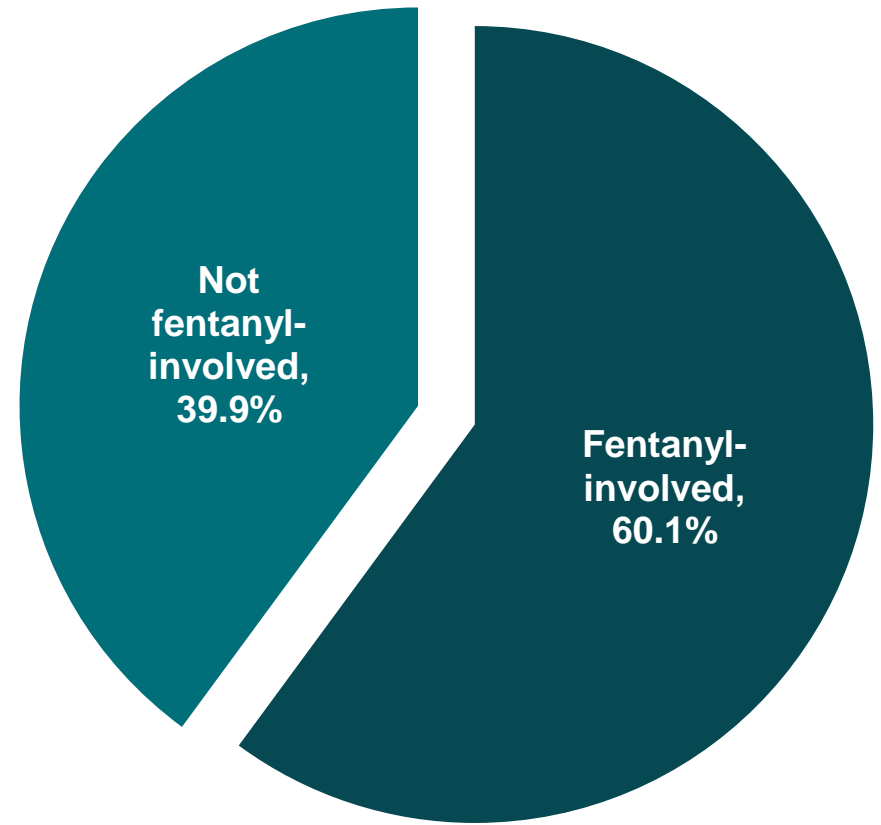


Source: SHADAC analysis of NVSS data

Hidden Tentacles of Fentanyl

Methamphetamine

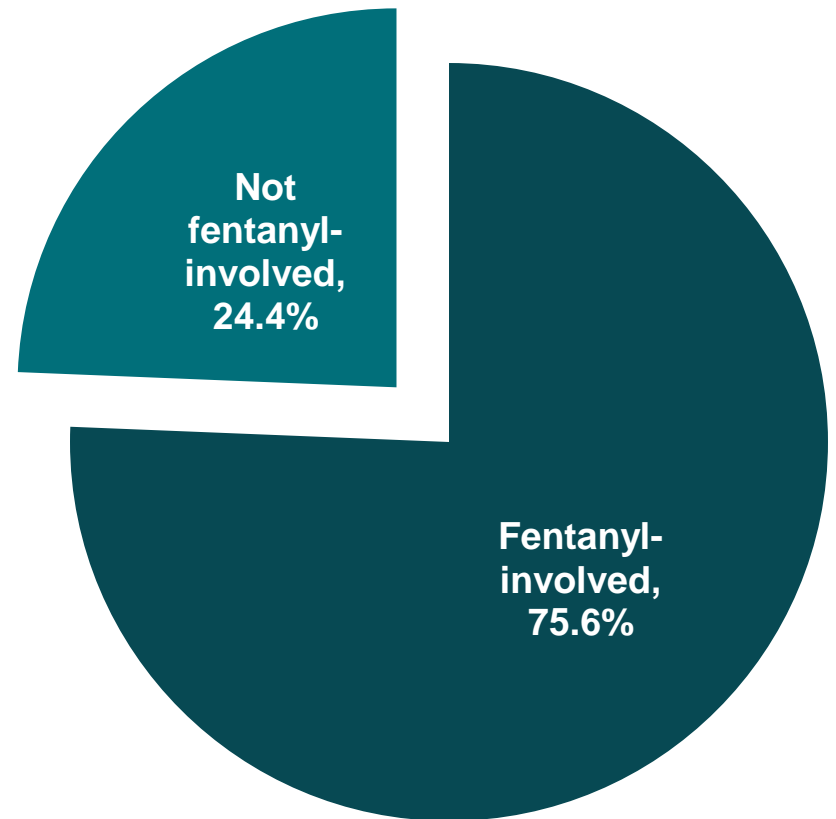
Total deaths	Not involving fentanyl
10.0 deaths per 100,000 people	4.0 deaths per 100,000 people



Hidden Tentacles of Fentanyl

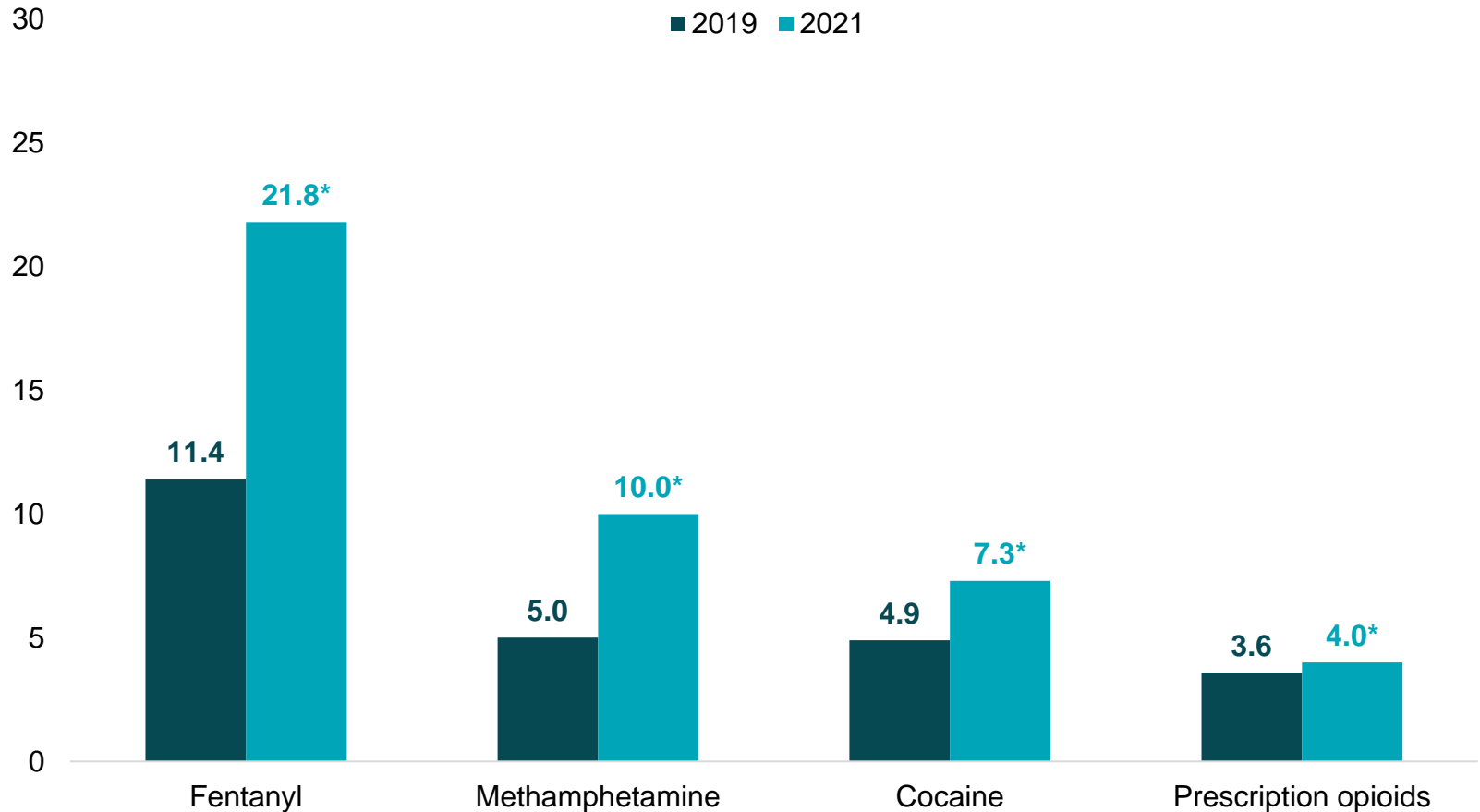
Cocaine

Total deaths	Not involving fentanyl
7.3 deaths per 100,000 people	1.8 deaths per 100,000 people



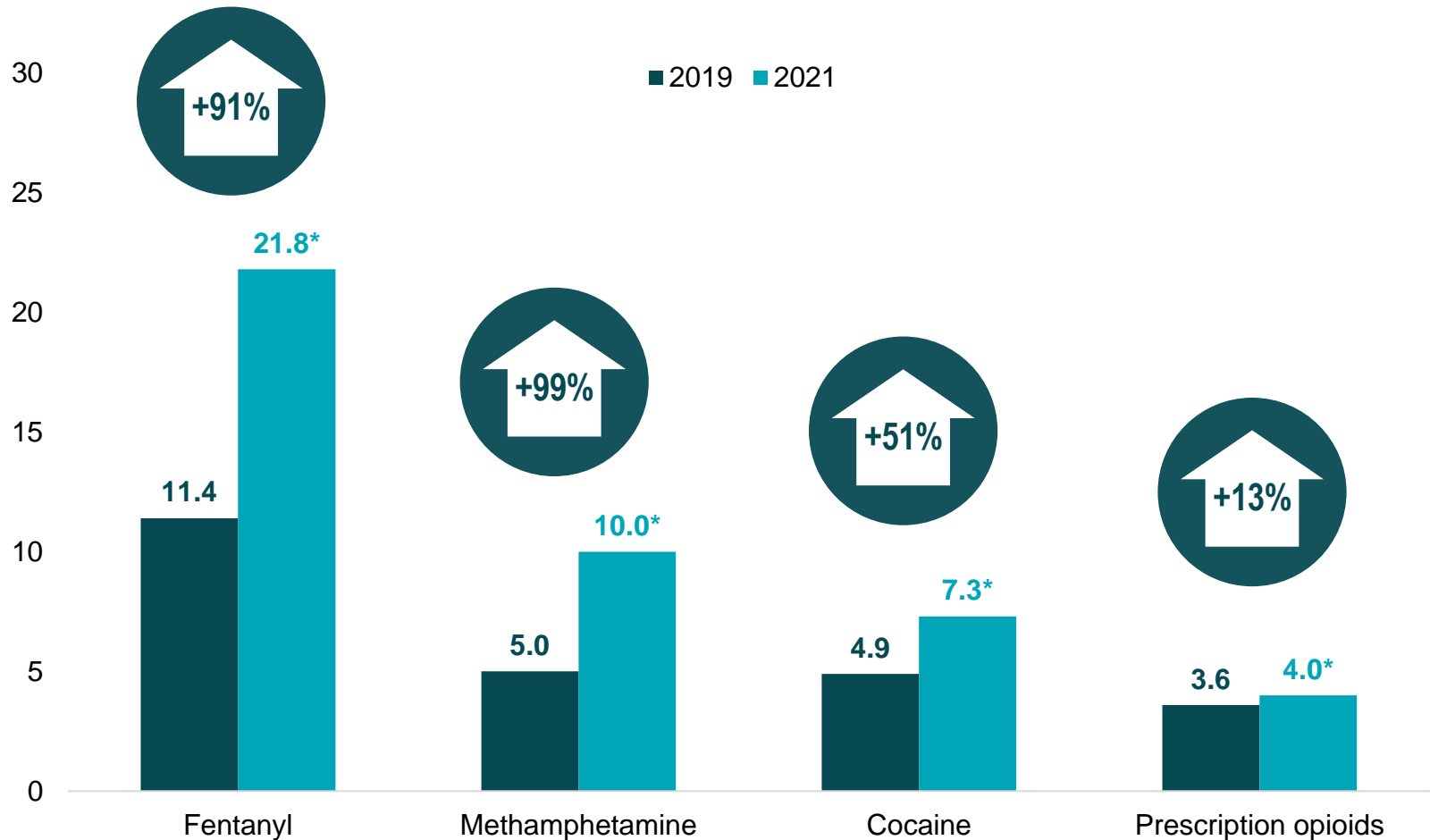
Opioid Crisis since the Pandemic

U.S. Drug Overdose Deaths by Type per 100,000 People, 2019-2021



* Statistically significant increase since 2019 at the 95% level.
Source: SHADAC analysis of NVSS data

U.S. Drug Overdose Deaths by Type per 100,000 People, 2019-2021



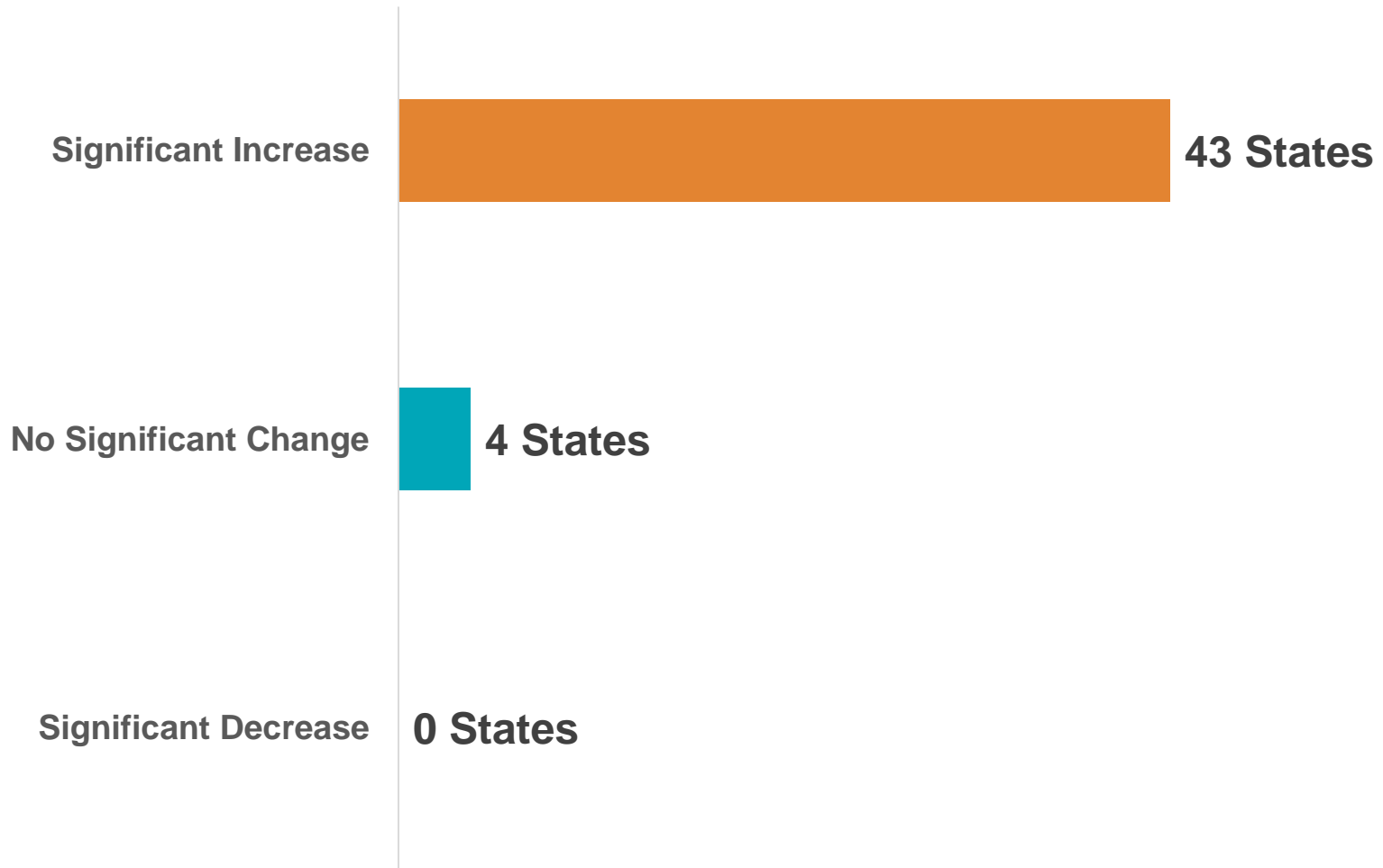
* Statistically significant increase since 2019 at the 95% level.

Source: SHADAC analysis of NVSS data

Opioid Crisis since the Pandemic

Across the States

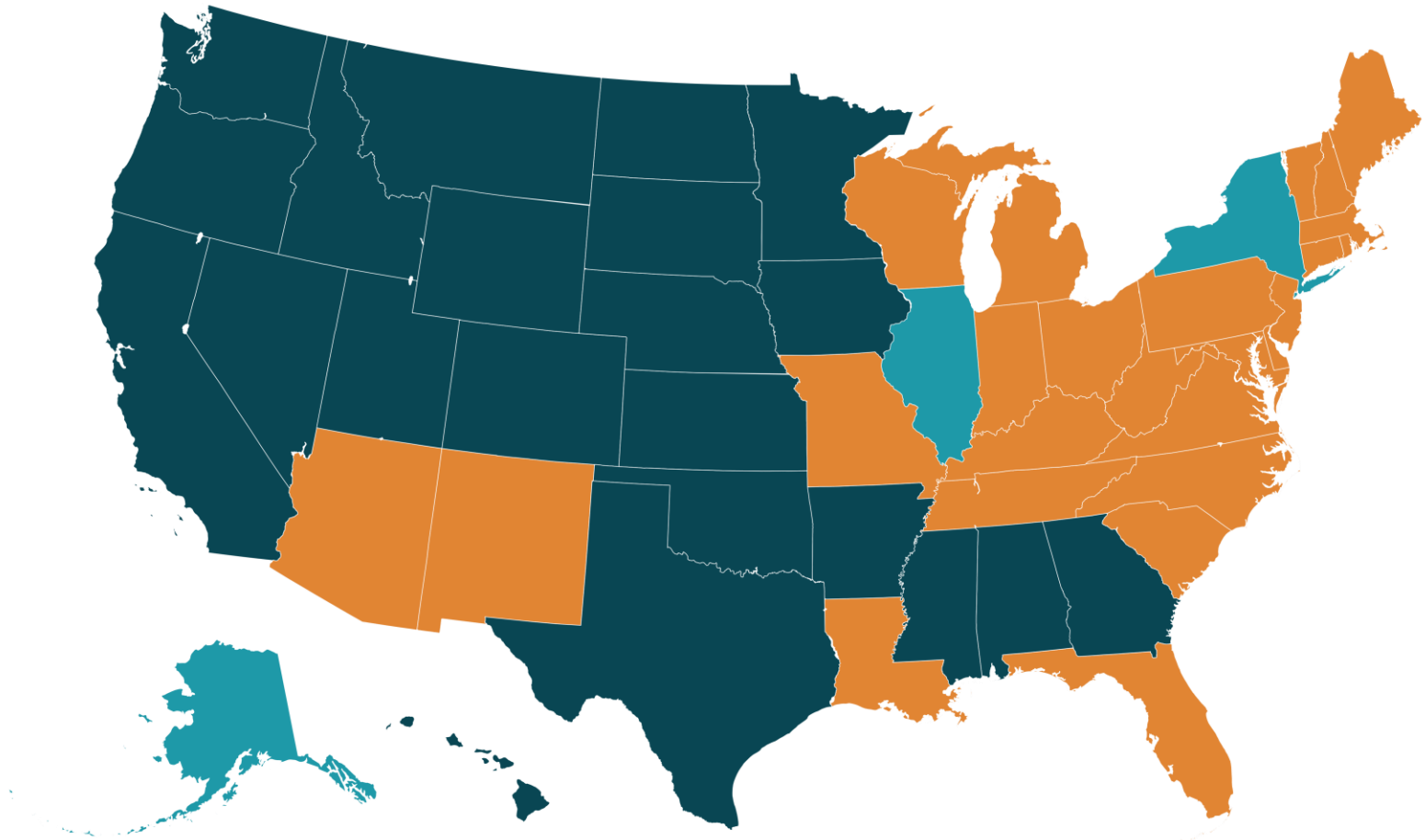
State Changes in Fentanyl Overdose Rates per 100,000 people, 2019-2021



Fentanyl Overdose Rates per 100,000 people, 2021

Five Highest Rates		Five Lowest Rates	
West Virginia	73.5	Hawaii	3.7
District of Columbia	46.3	South Dakota	4.1
Delaware	44.0	Nebraska	4.9
Tennessee	42.1	Texas & Utah	6.3
Kentucky	41.0	Montana & Iowa	7.1

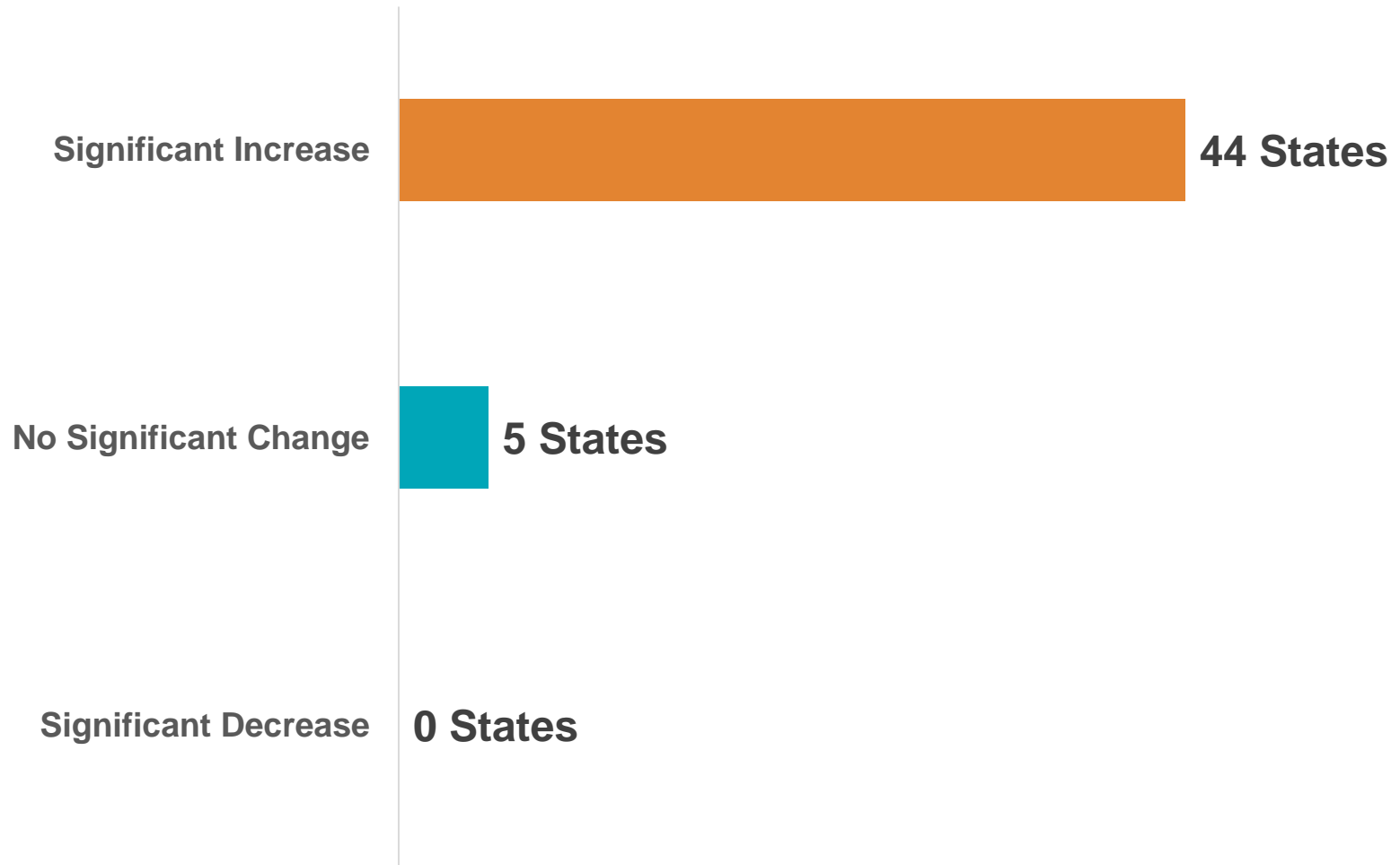
Fentanyl Overdose Rates vs U.S., 2021



Powered by Bing
© GeoNames, Microsoft, TomTom

■ Significantly higher than U.S. ■ Not significantly different from U.S. ■ Significantly lower than U.S.

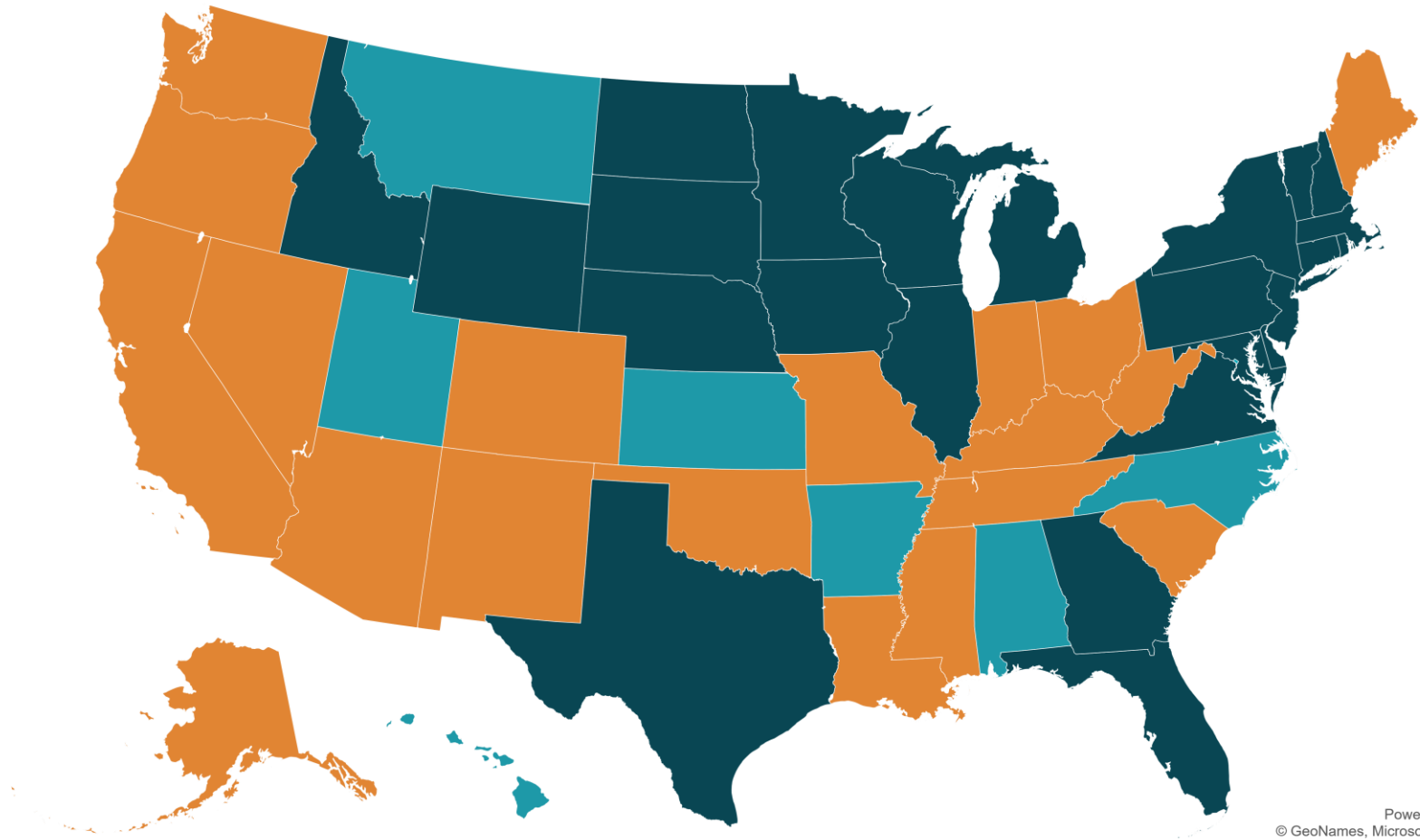
State Changes in Methamphetamine Overdose Rates per 100,000 people, 2019-2021



Methamphetamine Overdose Rates per 100,000 people, 2021

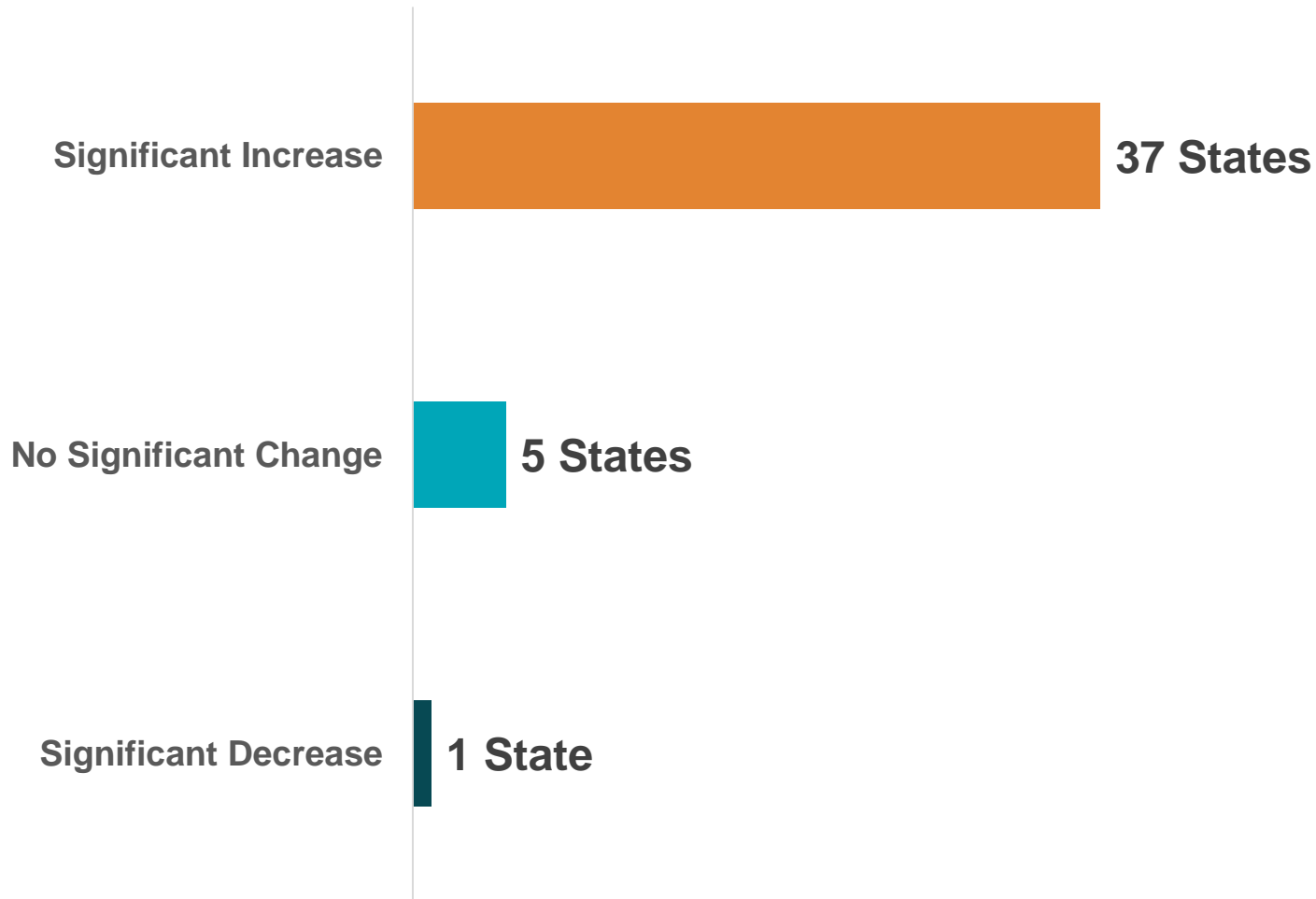
Five Highest Rates		Five Lowest Rates	
West Virginia	49.9	Maryland	2.3
New Mexico	26.3	Connecticut	2.6
Kentucky	25.0	New York	3.2
Tennessee	23.3	Nebraska	3.3
Alaska	22.8	Massachusetts	3.4

Methamphetamine Overdose Rates vs U.S., 2021



Powered by Bing
© GeoNames, Microsoft, TomTom

State Changes in Cocaine Overdose Rates per 100,000 people, 2019-2021

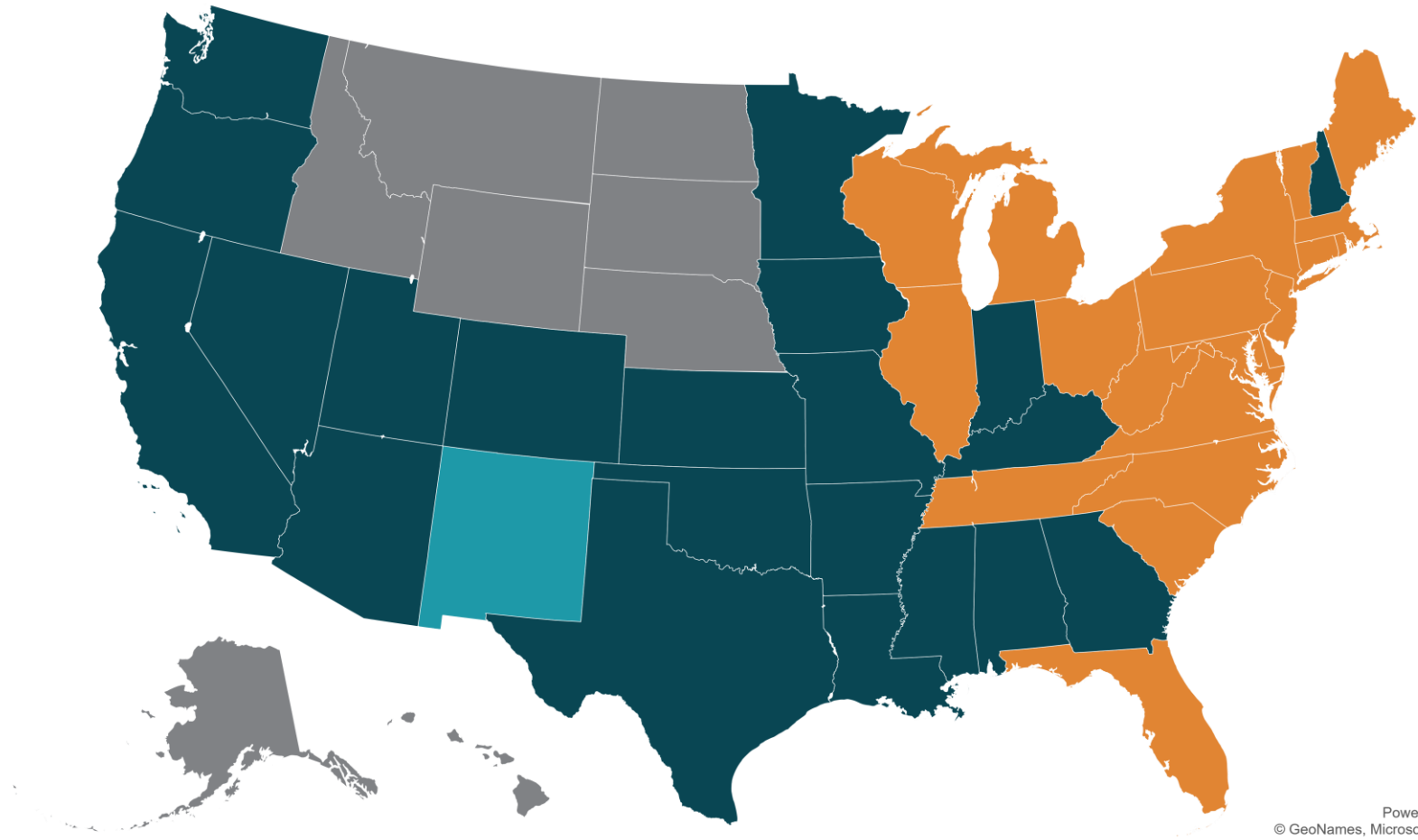


Cocaine Overdose Rates per 100,000 people, 2021

Five Highest Rates	
District of Columbia	32.1
Rhode Island	20.3
Delaware	20.1
Vermont	17.3
Massachusetts	16.6

Five Lowest Rates	
Iowa	1.1
Oklahoma	1.4
Utah	1.5
Oregon & Arkansas	2.2
Kansas	2.5

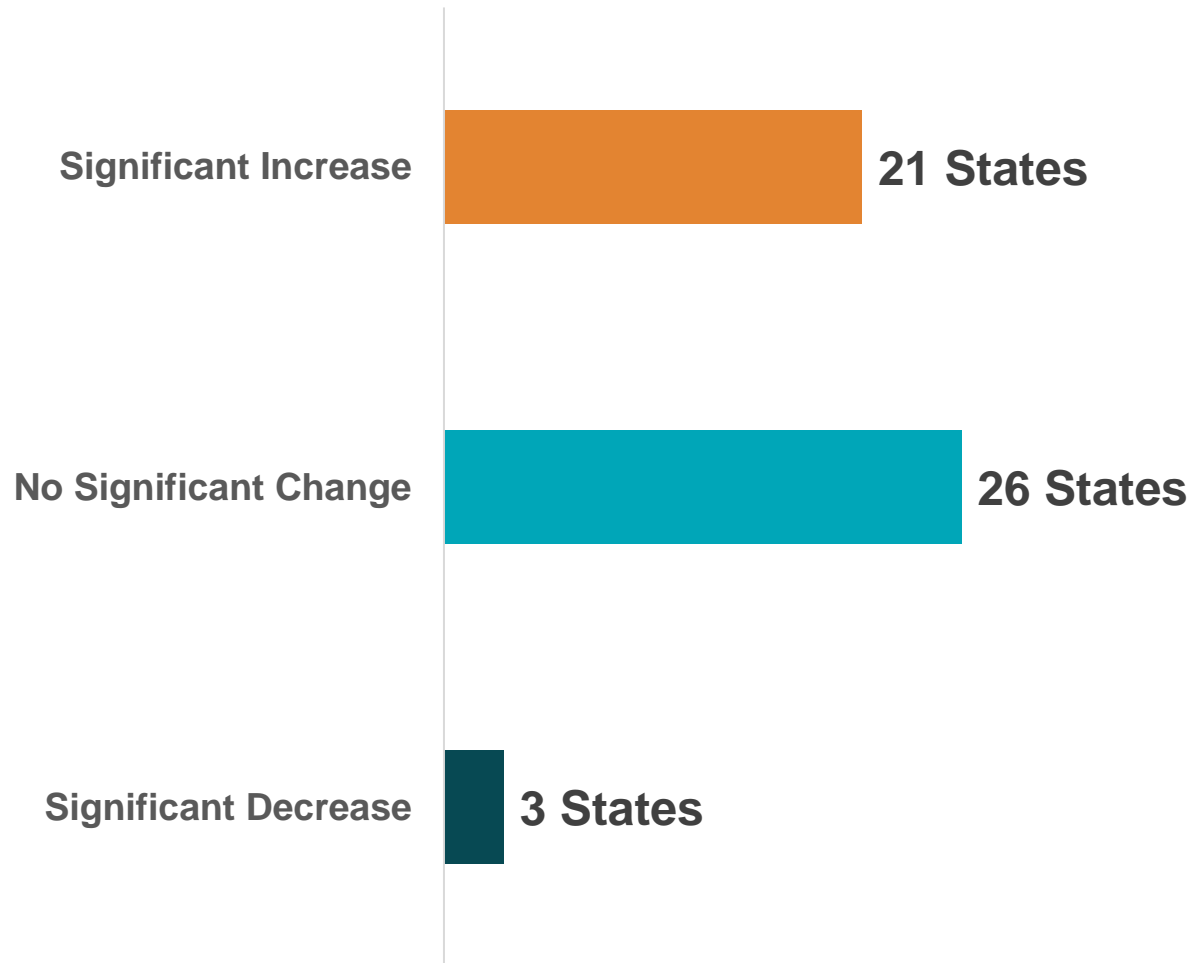
Cocaine Overdose Rates vs U.S., 2021



Powered by Bing
© GeoNames, Microsoft, TomTom

■ Significantly higher than U.S. ■ Not significantly different from U.S. ■ Significantly lower than U.S. ■ N/A

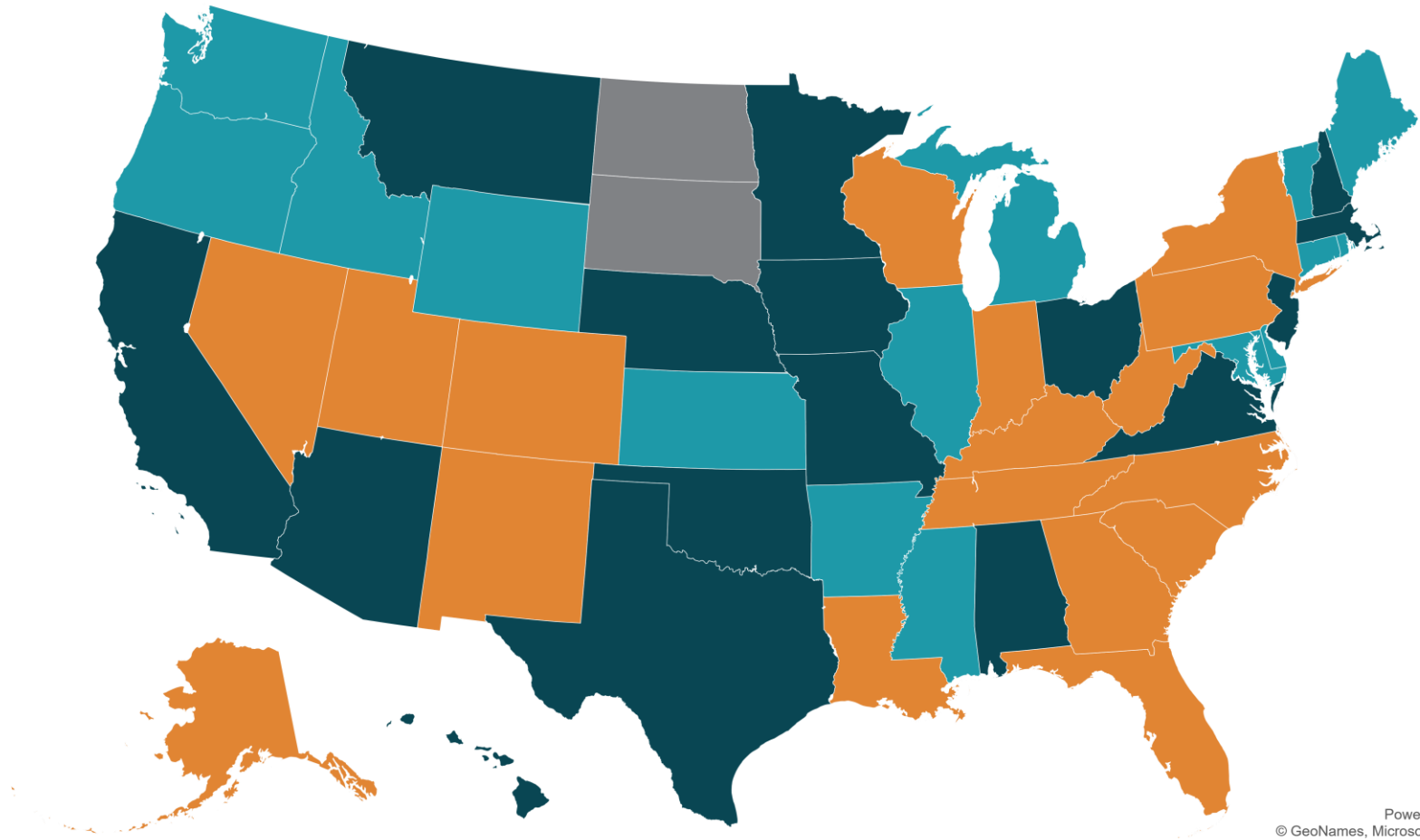
State Changes in Prescription Opioid Overdose Rates per 100,000 people, 2019-2021



Prescription Opioid Overdose Rates per 100,000 people, 2021

Five Highest Rates		Five Lowest Rates	
West Virginia	12.2	Hawaii	1.8
Alaska	9.7	Nebraska	2.0
Kentucky	8.9	Iowa & Texas	2.1
Tennessee	8.6	California	2.4
South Carolina	7.3	New Hampshire	2.6

Prescription Opioid Overdose Rates vs U.S., 2021



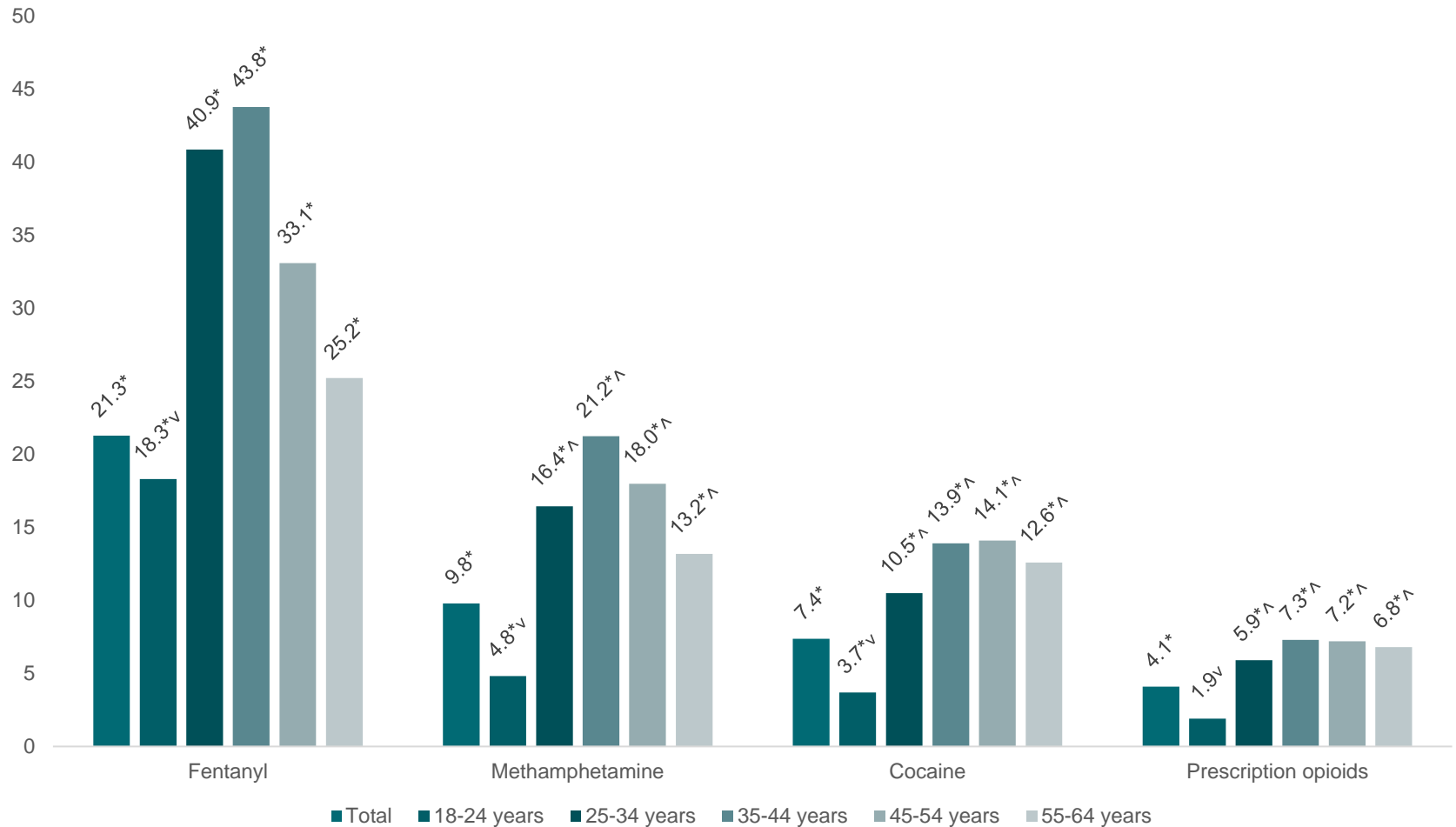
Powered by Bing
© GeoNames, Microsoft, TomTom

■ Significantly higher than U.S. ■ Not significantly different from U.S. ■ Significantly lower than U.S. ■ N/A

Opioid Crisis since the Pandemic

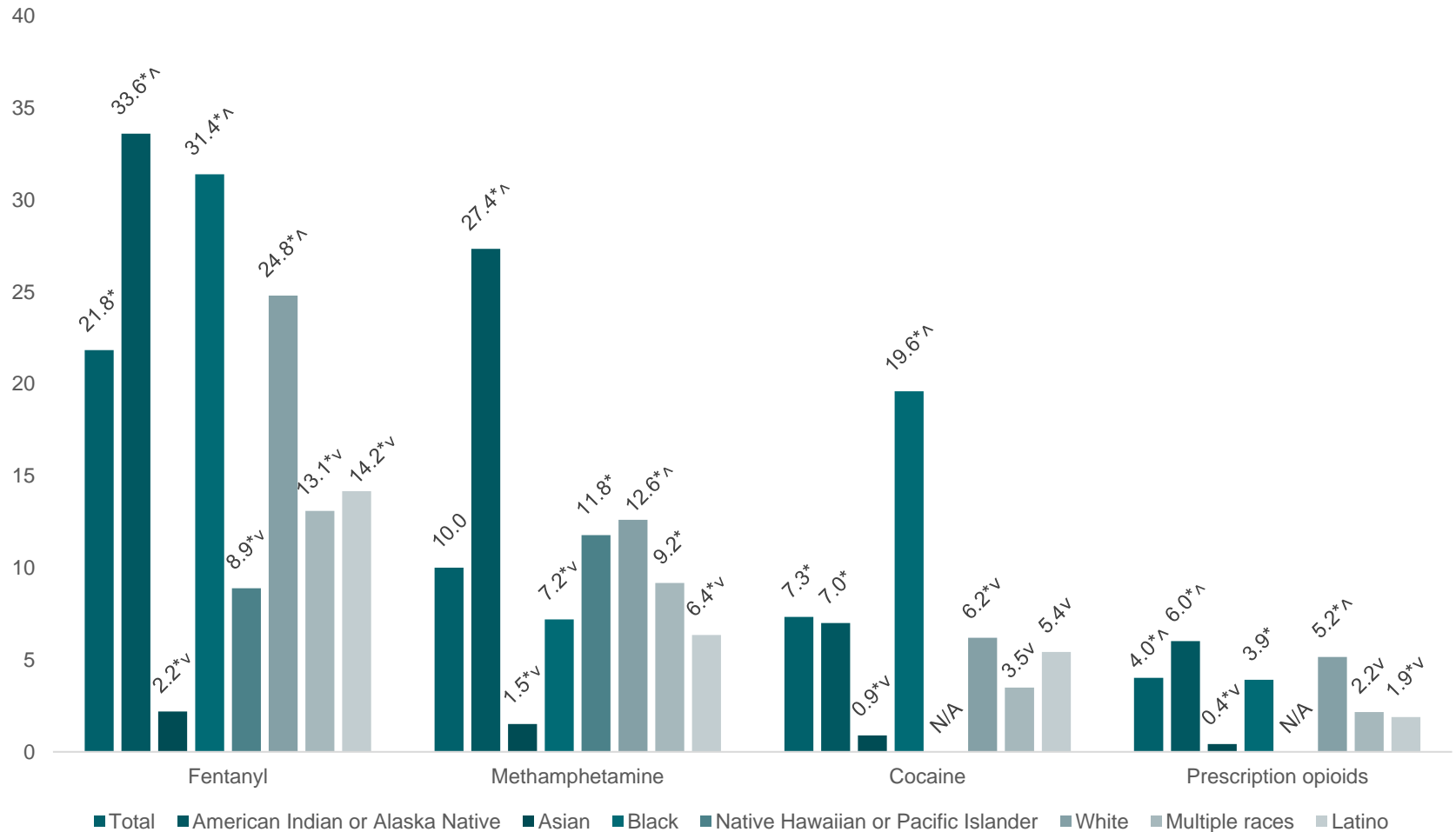
By Demographic Sub-populations

U.S. Drug Overdose Deaths per 100,000 people by Age, 2021



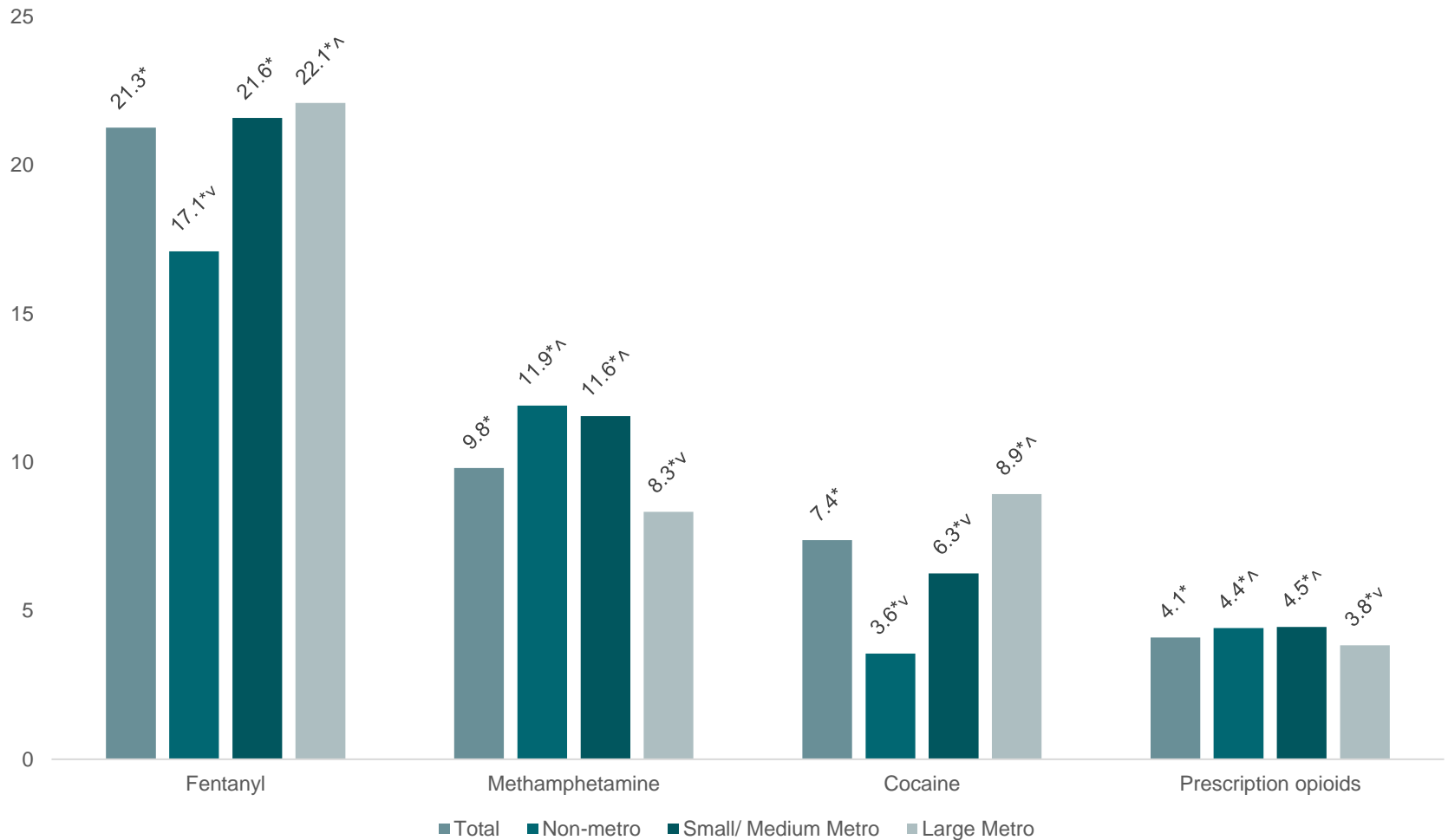
* Statistically significant increase since 2019 at the 95% level.
 ^ Significantly higher than the total population rate at the 95% level.
 v Significantly lower than the total population rate at the 95% level.
 Source: SHADAC analysis of NVSS data

U.S. Drug Overdose Deaths per 100,000 people by Race/ethnicity, 2021



* Statistically significant increase since 2019 at the 95% level.
 ^ Significantly higher than the total population rate at the 95% level.
 v Significantly lower than the total population rate at the 95% level.
 Source: SHADAC analysis of NVSS data

U.S. Drug Overdose Deaths per 100,000 people by Urbanization, 2021

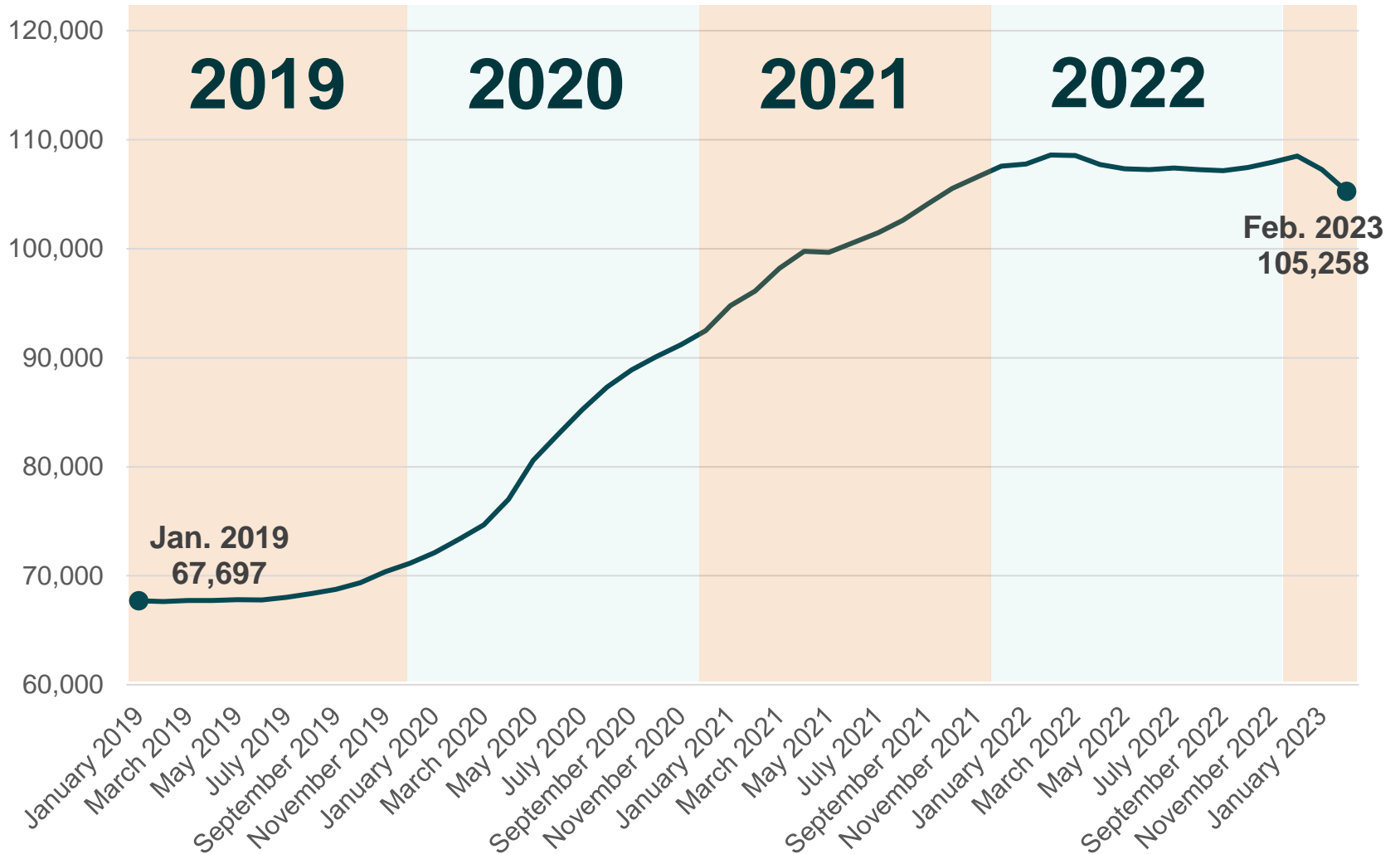


* Statistically significant increase since 2019 at the 95% level.
 ^ Significantly higher than the total population rate at the 95% level.
 v Significantly lower than the total population rate at the 95% level.
 Source: SHADAC analysis of NVSS data

More recently

Provisional Overdose Deaths Data

U.S. Provisional Drug Overdose Deaths, 12-month Rolling Counts



Source: CDC Provisional Drug Overdose Death Counts

Thank you

Colin Planalp, MPA
Senior Research Fellow
cplanalp@umn.edu

State Health Access Data Assistance Center (SHADAC)
University of Minnesota School of Public Health
www.SHADAC.org

