

# Overdose Data and Dashboards

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Annual meeting of the Consortium for Prescription Drug Abuse Prevention  
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Barbara Gabella MSPH  
Kylie Yocum, MPH  
Christine Demont, MPH  
Katherine Sullivan, PhD  
Colorado Department of Public Health and Environment

# Key Trends in Opioid Overdoses in Colorado

Overdose deaths mentioning fentanyl continue to increase in Colorado.

- 912 in 2021 (48% of 1,881 overdose deaths)
- 920 in 2022 (51% of 1,799 overdose deaths)

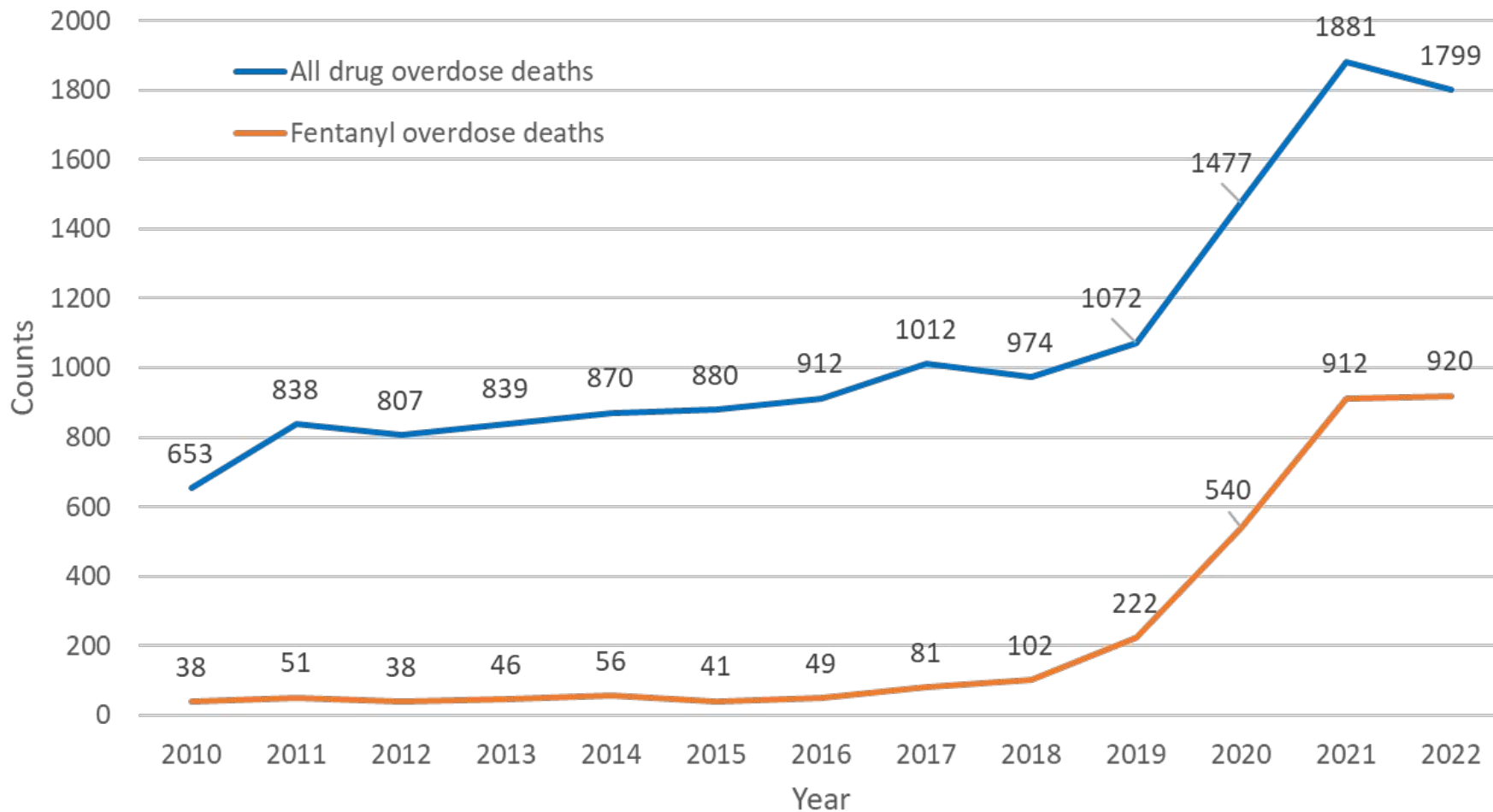
Age-adjusted death rate of overdose involving fentanyl rose and then remained high in 2022.

Rate of overdose deaths involving other substances without mention of fentanyl have remained low and stable.

Rate of ED visits for nonfatal overdoses involving synthetic opioids, including fentanyl, nearly quadrupled from 2020 to 2022.



# Fentanyl overdose deaths continue to increase

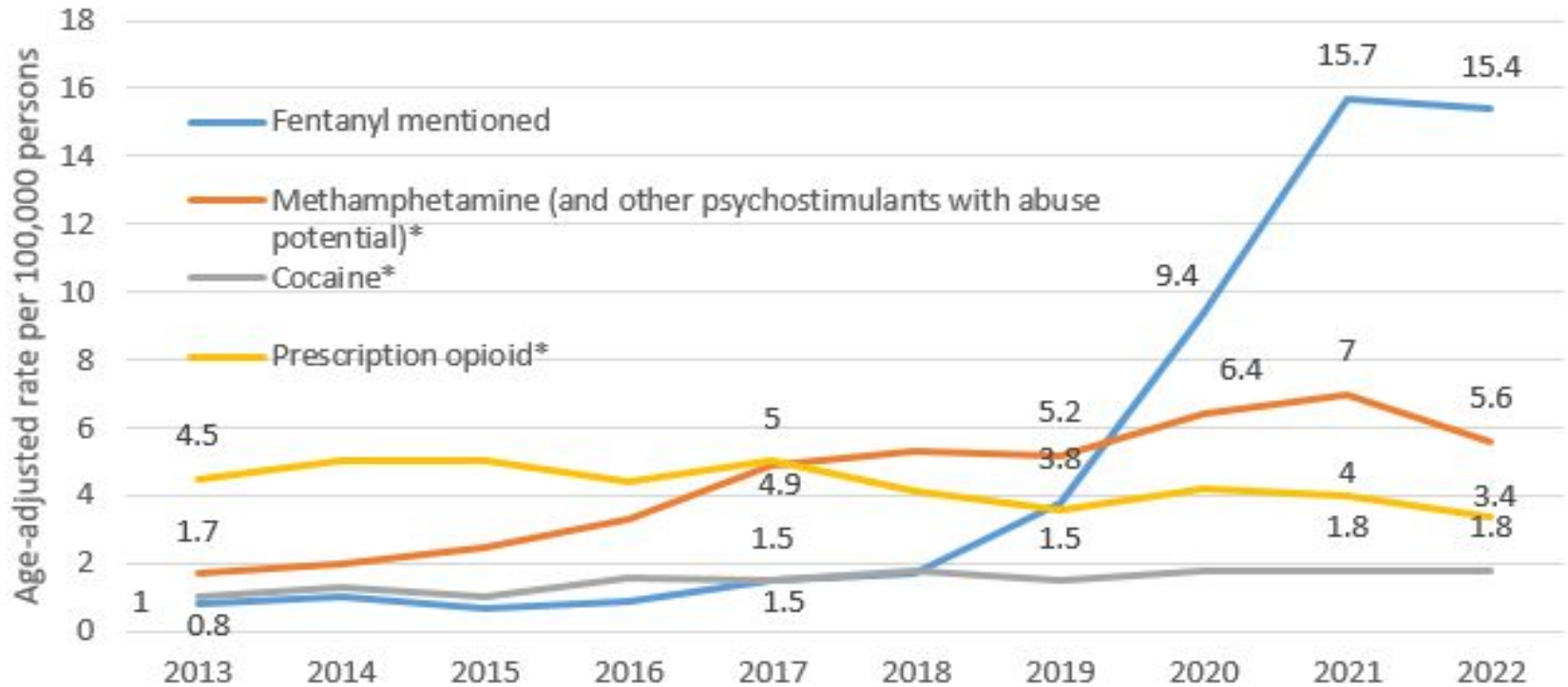


Source: Colorado Vital Statistics, accessed via the [overdose dashboard](#)



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# Fentanyl death rates rose and remain high in 2022



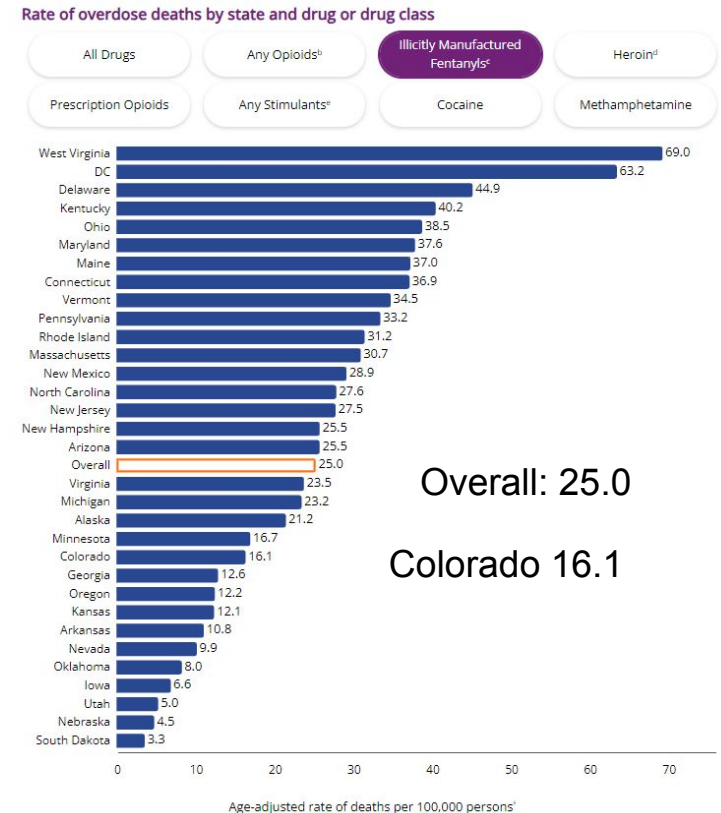
Overdose death rates involving prescription opioids, psychostimulants, or cocaine without mention of fentanyl remained stable or decreased.

\*without fentanyl

# Enhanced overdose death surveillance

- Colorado participates in CDC's State Unintentional Drug Overdose Reporting System.
- Data from death certificates and medical examiner/coroner reports on overdose deaths of unintentional or undetermined intent.
- To better understand the circumstances that surround overdose deaths.
- To identify specific substances causing or contributing to the death as well as emerging and polysubstance overdose trends to help inform overdose prevention and response efforts.

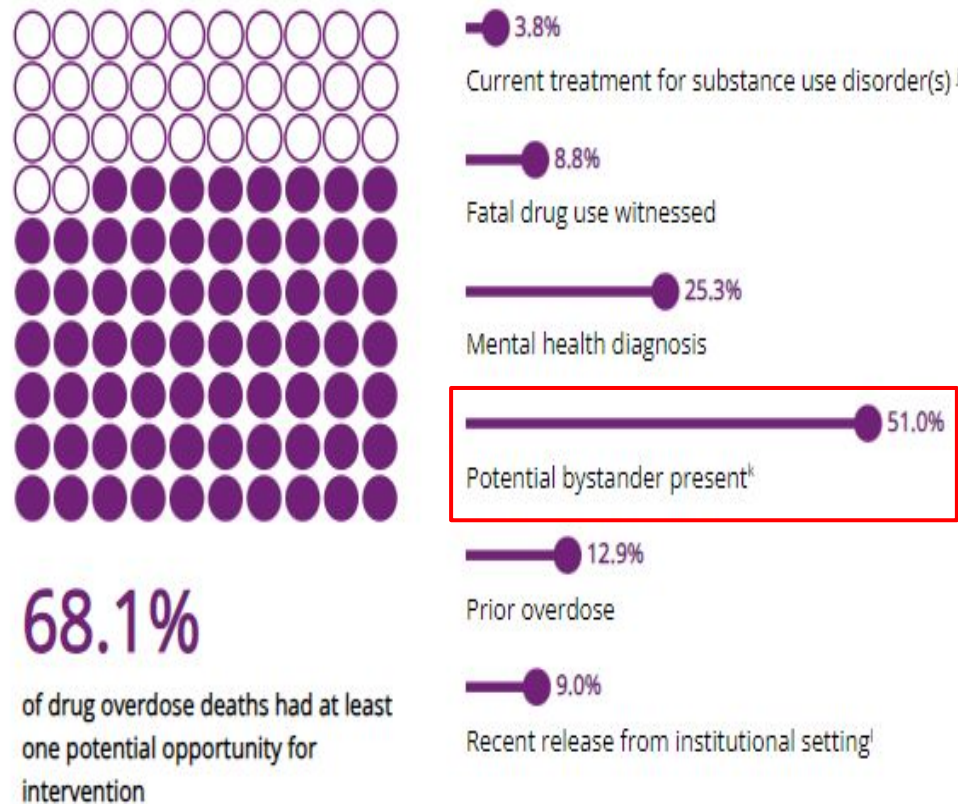
The figure shows age-adjusted rates for overdose deaths involving illicitly manufactured fentanyl.



# Enhanced overdose death surveillance

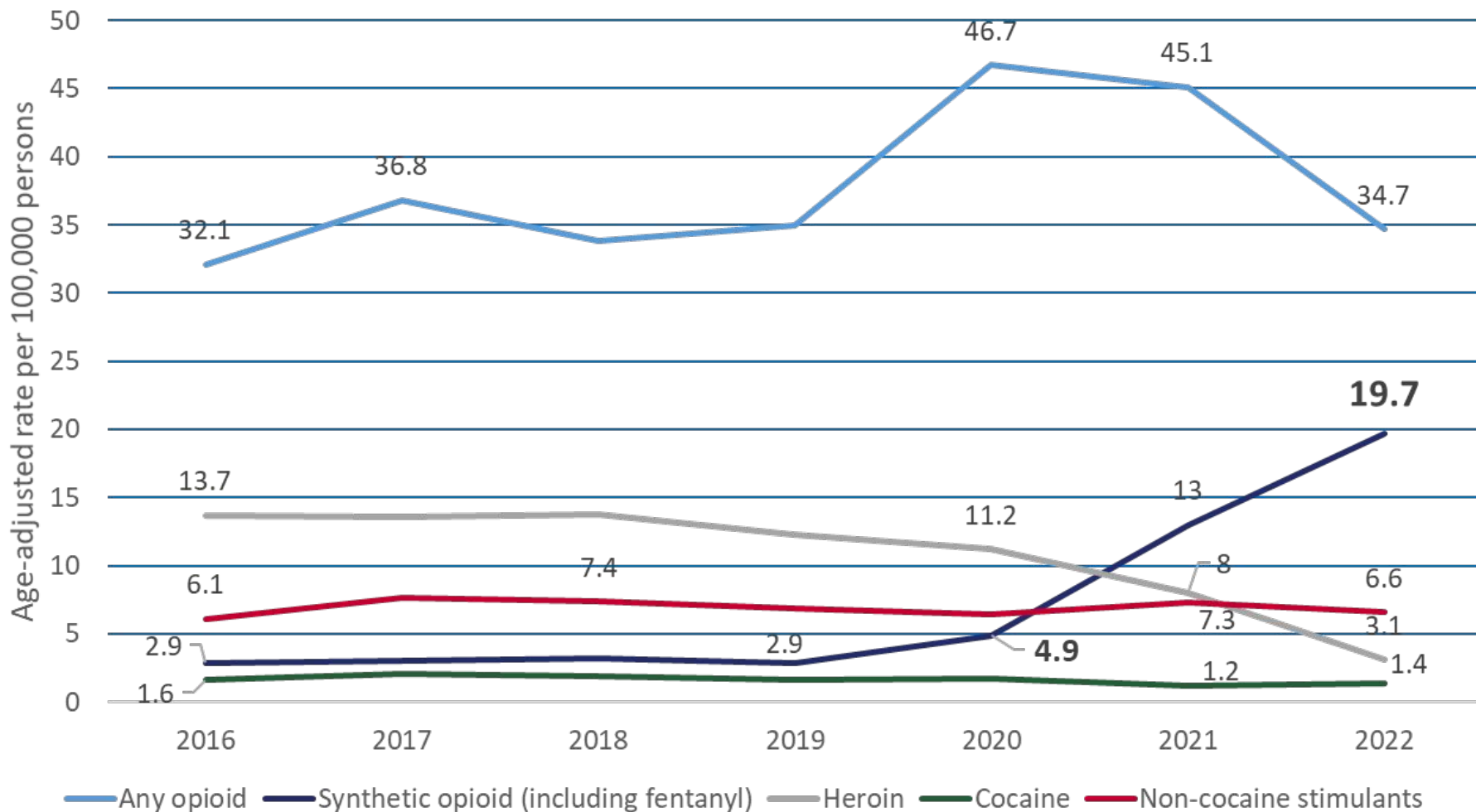
## Potential opportunities for intervention<sup>a</sup> in 2021, Colorado

Potential opportunities for intervention include linkage to care or life-saving actions at the time of the overdose.



Circumstance percentages are only among decedents with an available medical examiner or coroner report

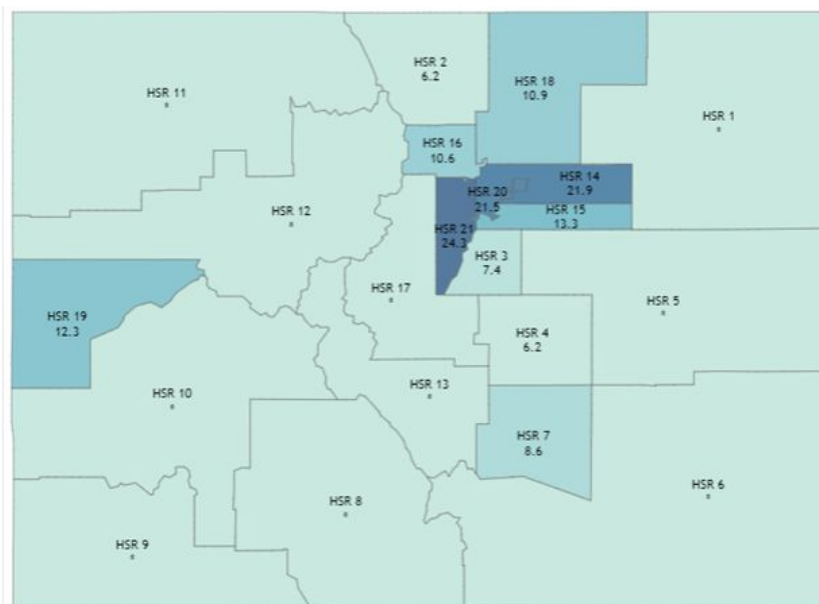
# Rate of ED visits for nonfatal synthetic opioid overdoses quadrupled from 2020 to 2022 (dark line)



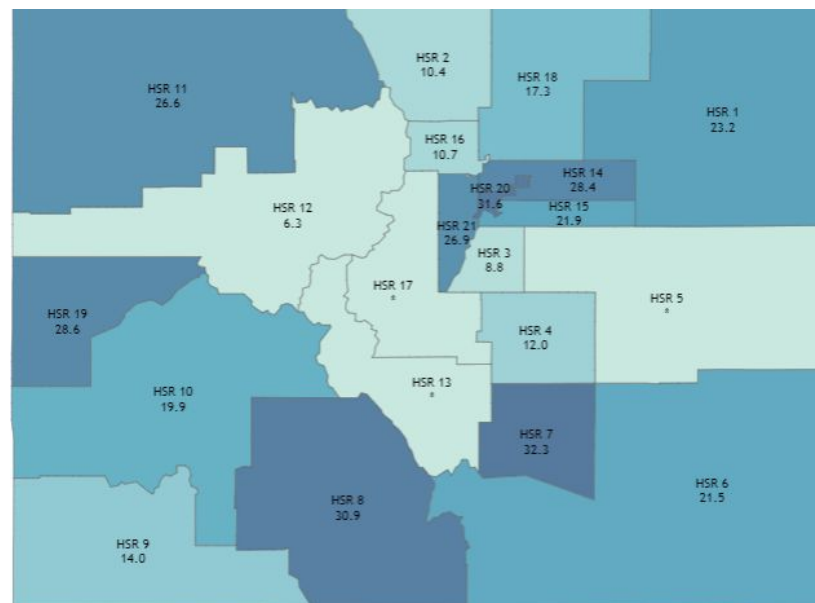
Source: CDPHE drug overdose [dashboard](#)

# Regional rates\* of nonfatal overdoses involving synthetic opioids

Higher in urban regions in 2021



Wide spread in 2022



\*Age-adjusted rates of overdoses among Colorado residents treated and released from Colorado emergency departments from the CDPHE drug [overdose dashboard](#)



# Key 2022 trends for other drugs

Fentanyl was combined with other drugs, such as cocaine and psychostimulants.

In 2022, the age-adjusted rate of **psychostimulant** overdoses (**including meth**) was **11.8 deaths per 100,000** persons, an increase from 8.9 deaths in 2019 but a slight decrease from 12.5 deaths in 2021.

The age-adjusted rate of **cocaine** overdoses was **4.2 deaths per 100,000** persons, slightly lower than 4.6 death per 100,000 persons in 2021.



# Emerging drugs: Xylazine

- Non-opioid tranquilizer
- Produces some sedative effects as opioids
- FDA-approved for use in animals, not humans
- Makes cuts and wounds more severe
  - Necrotic tissue damage
- 4 associated deaths in 2022; 4 in 2023 to date
  - All involved fentanyl too
- CDPHE has started a coordinating work group
- CDPHE Harm Reduction Grant Fund recipients can use this funding to buy and distribute xylazine test strips

# Emerging drugs: Nitazenes

- a novel group of powerful illicit synthetic opioids
- created as a pain reliever nearly 60 years ago
- never approved for use in the United States
- potency of certain nitazenes exceeds fentanyl
- 10 Colorado deaths involving nitazenes (spanning mid-2021 to present)

Source of drug description: <https://www.cdc.gov/mmwr/volumes/71/wr/mm7137a5.htm>

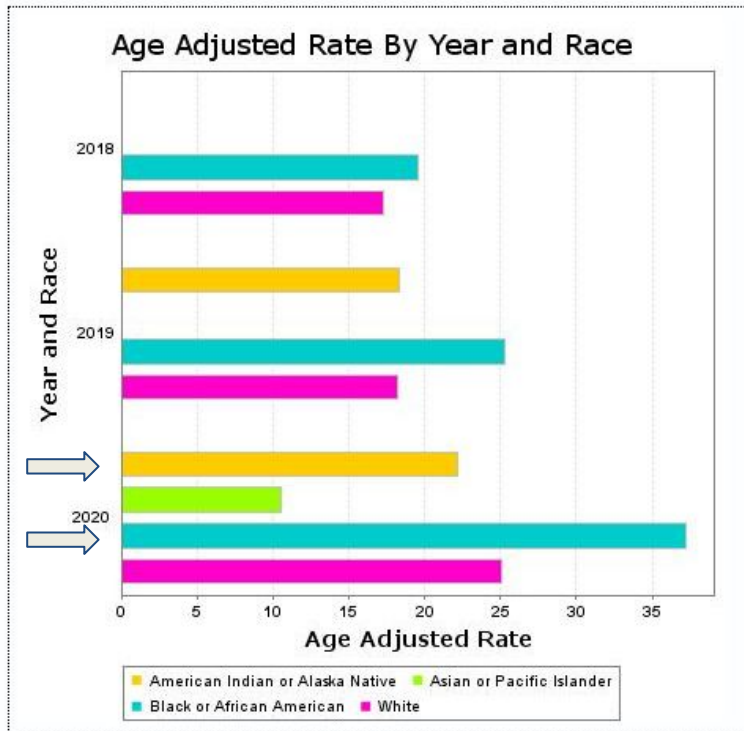


# **Patterns of fatal overdose by demographic groups and geography**

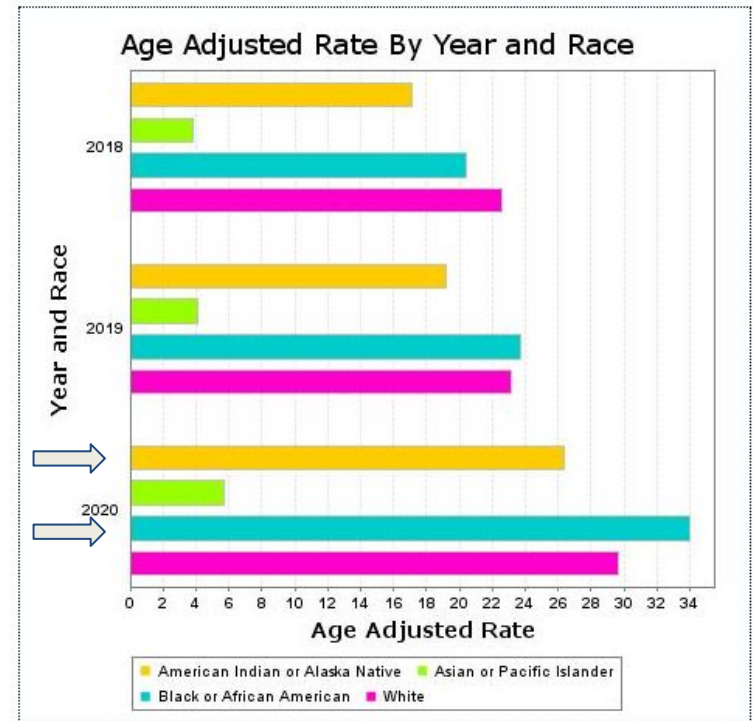


# Fatal Overdose Age-Adjusted Rates by Race from 2018-2020

CO



US



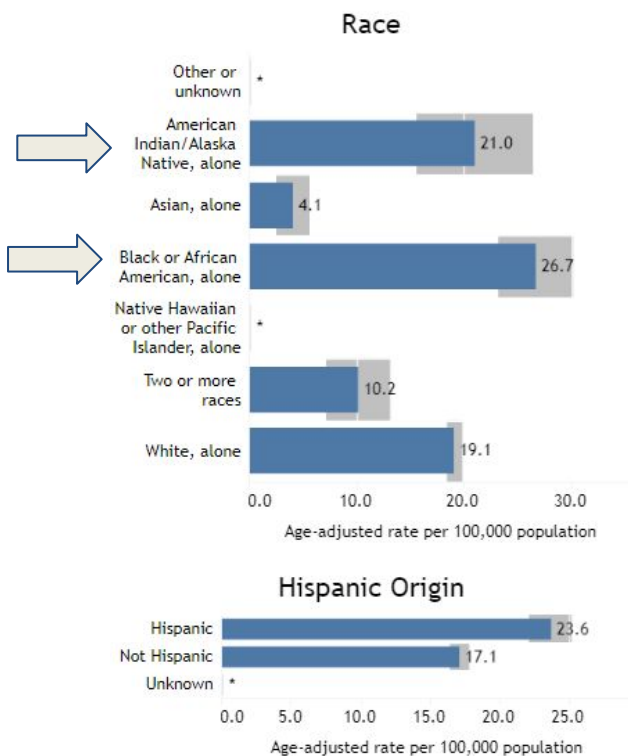
# Key Demographic Trends 2020-2022 (Death Certificate Data)

- **Race and Ethnicity Trends**
  - Fatal opioid overdose rates by race follow a similar trend seen on the last slide.
    - Fatal overdose rates involving methamphetamine are higher among American Indian/Alaskan Natives in CO.
- **Age Trends**
  - The age group 25-44 years old were most prevalent in fatal overdoses for most substances.
    - Fatal overdose rates involving methamphetamine are higher among those 35-54 years old.

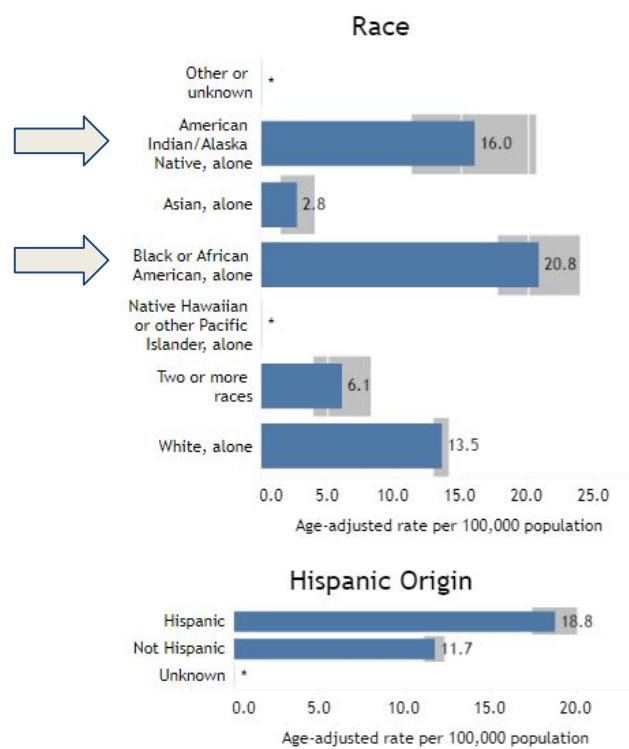


# Fatal Overdose Age-Adjusted Rates in CO by Race and Substance Involved from 2020-2022

## Any opioid overdose (prescription or heroin)

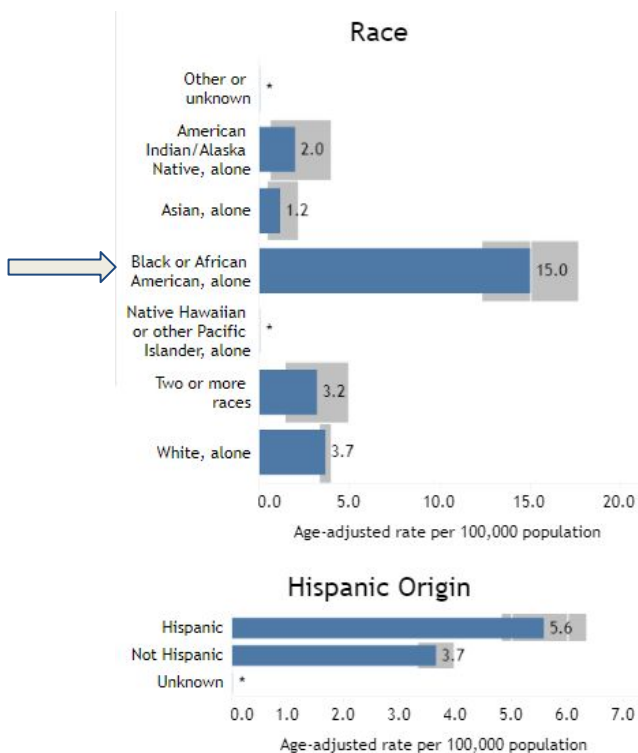


## Prescription opioid overdose (fully synthetic with mention of Fentanyl)

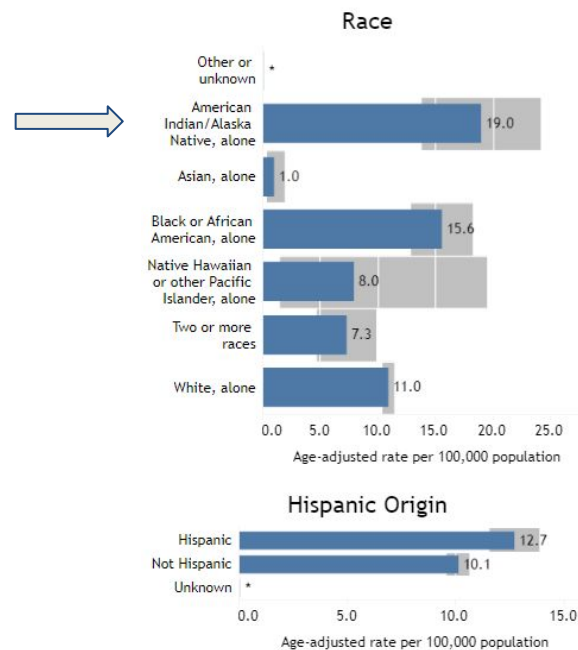


# Fatal Overdose Age-Adjusted Rates in CO by Race and Substance Involved from 2020-2022

## Cocaine involved overdose



## Methamphetamine (and other psychostimulants) involved overdose

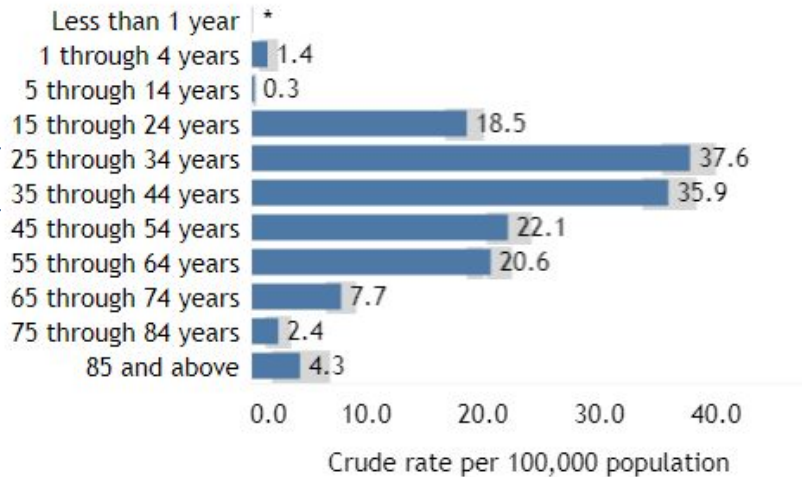




# Fatal Overdose Crude Rates in CO by Age Group and Substance Involved from 2020-2022

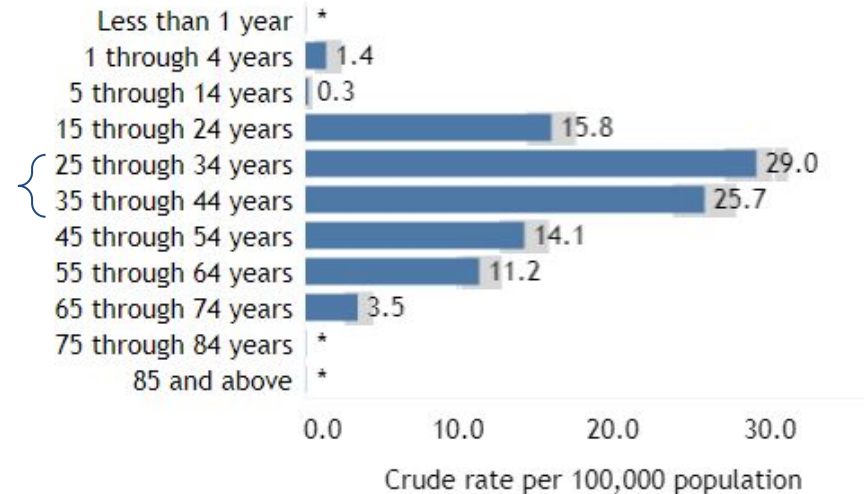
## Any opioid overdose (prescription or heroin)

Age group



## Prescription opioid overdose (fully synthetic with mention of Fentanyl)

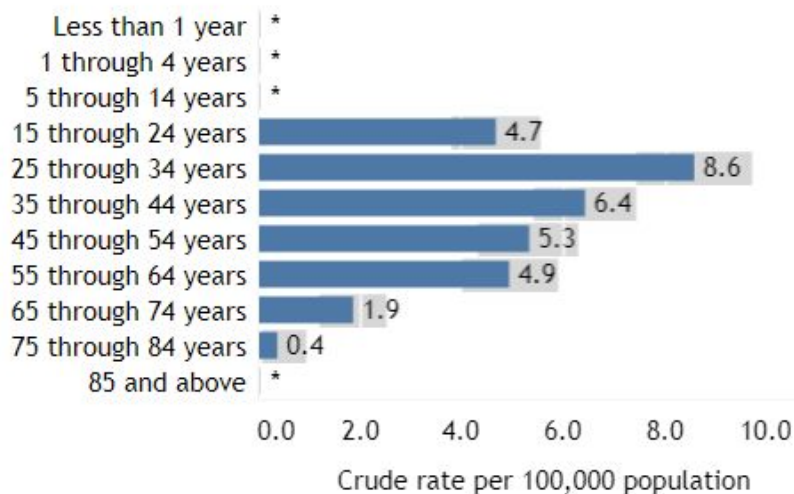
Age group



# Fatal Overdose Crude Rates in CO by Age Group and Substance Involved from 2020-2022

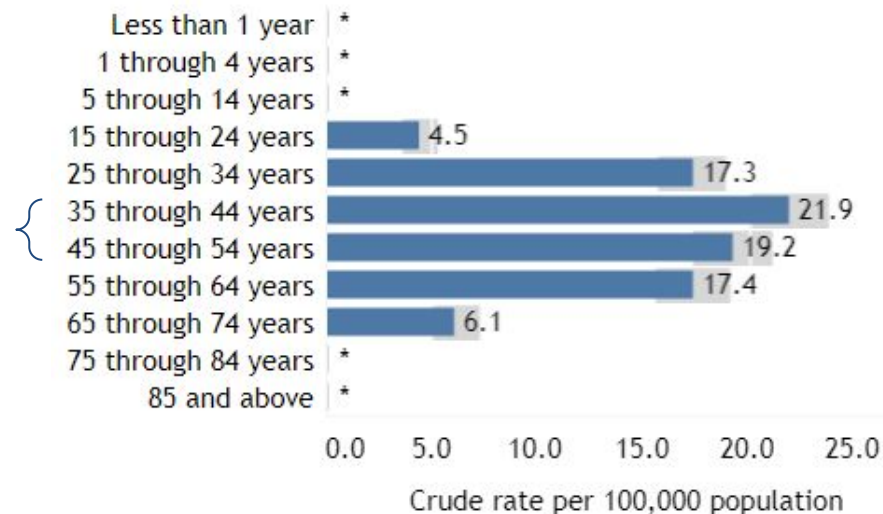
## Cocaine involved overdose

### Age group



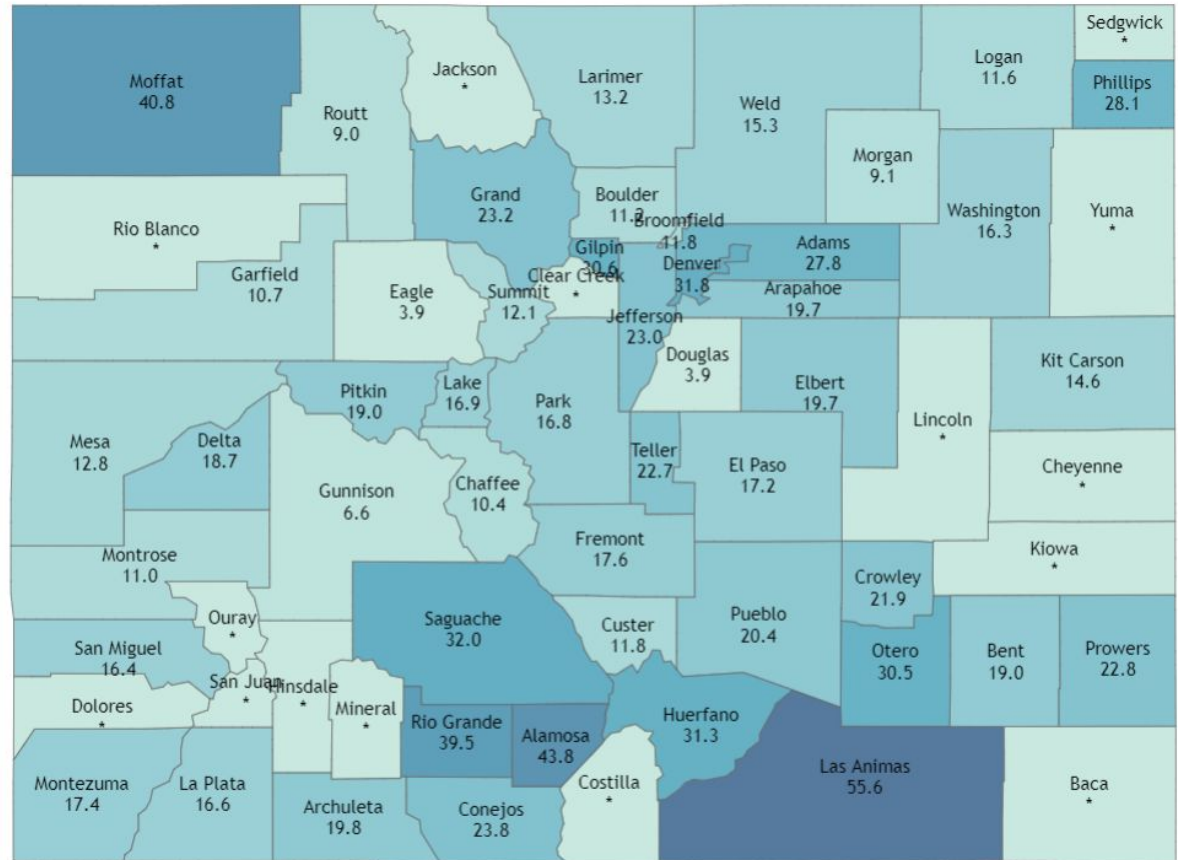
## Methamphetamine (and other psychostimulants) involved overdose

### Age group



# Fatal Opioid Overdose Age-Adjusted Rate Map 2020-2022

## Any opioid overdose (prescription or heroin)

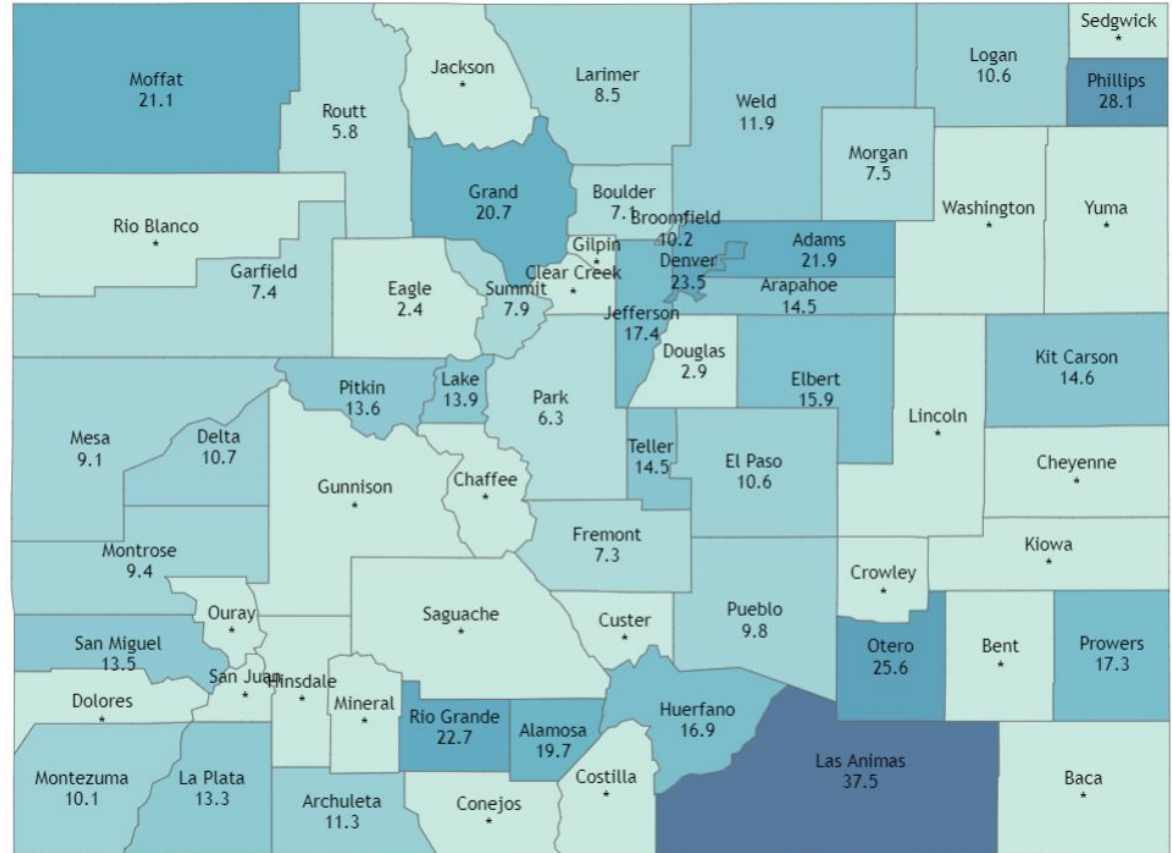


Source: Overdose Prevention Unit, Colorado Department of Public Health and Environment. Drug Overdose Dashboard. Accessed 07/2023.  
[https://cohealthviz.dphe.state.co.us/t/PSDVIP-MHPPUBLIC/views/DrugOverdoseDashboard/LandingPage?showAppBanner=false&:display\\_count=n&:showVizHome=n&:origin=viz\\_share\\_link](https://cohealthviz.dphe.state.co.us/t/PSDVIP-MHPPUBLIC/views/DrugOverdoseDashboard/LandingPage?showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link)



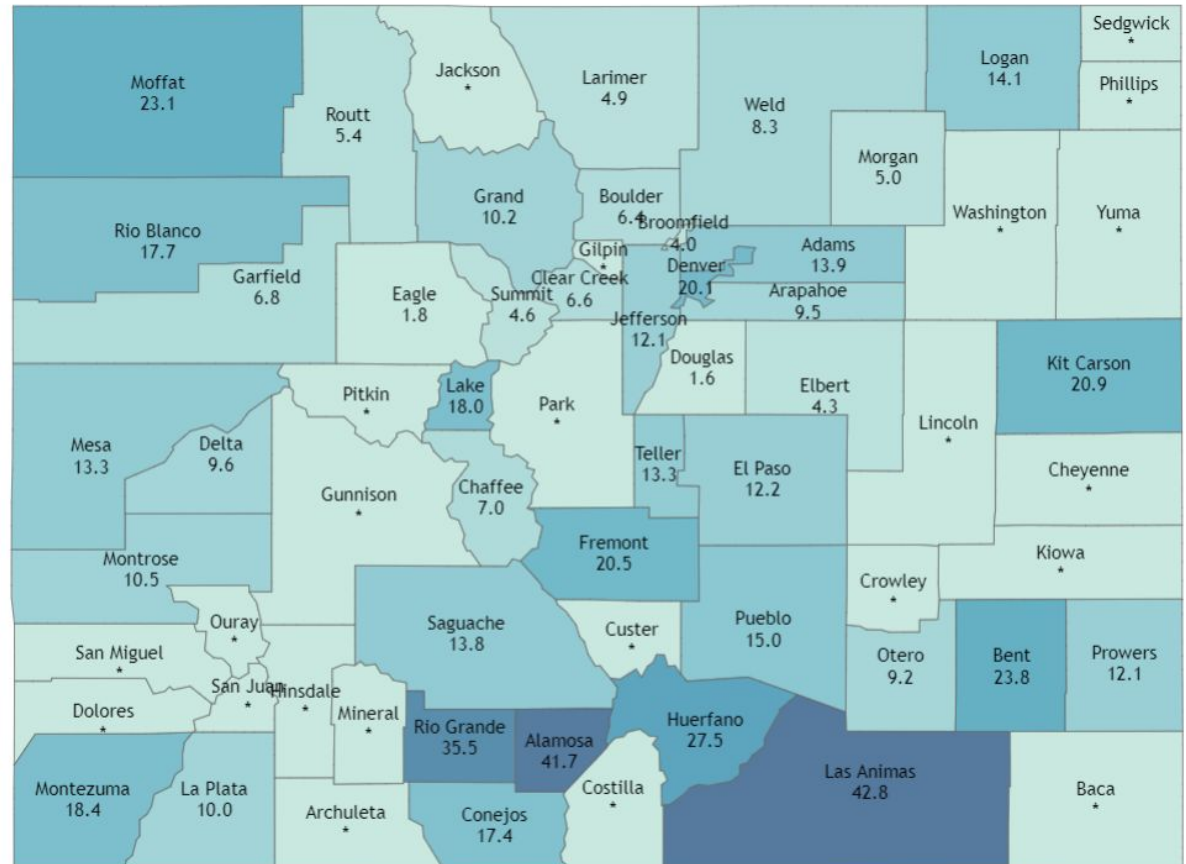
# Fatal Fentanyl Overdose Age-Adjusted Rate Map 2020-2022

## Prescription opioid overdose (fully synthetic with mention of Fentanyl)



## Methamphetamine (and other psychostimulants) involved overdose

# Fatal Meth Overdose Age-Adjusted Rate Map 2020-2022



# Enhanced overdose death surveillance: State Unintentional Drug Overdose Reporting System (SUDORS)

<https://cdphe.colorado.gov/center-for-health-and-environmental-data/registries-and-vital-statistics/state-unintentional-drug>



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# State Unintentional Drug Overdose Reporting System (SUDORS)

- Developed and funded by the Centers for Disease Control and Prevention (CDC) as part of the OD2A\* grant
- Administered in 47 states and District of Columbia (Colorado funding started in 2019)
- Data collected from death certificates and coroner/medical examiner reports
- Captures over 200 variables for overdoses of unintentional or undetermined intent
- Collect Who, When, Where, How in order to understand the WHY

\*Overdose Data to Action grant:

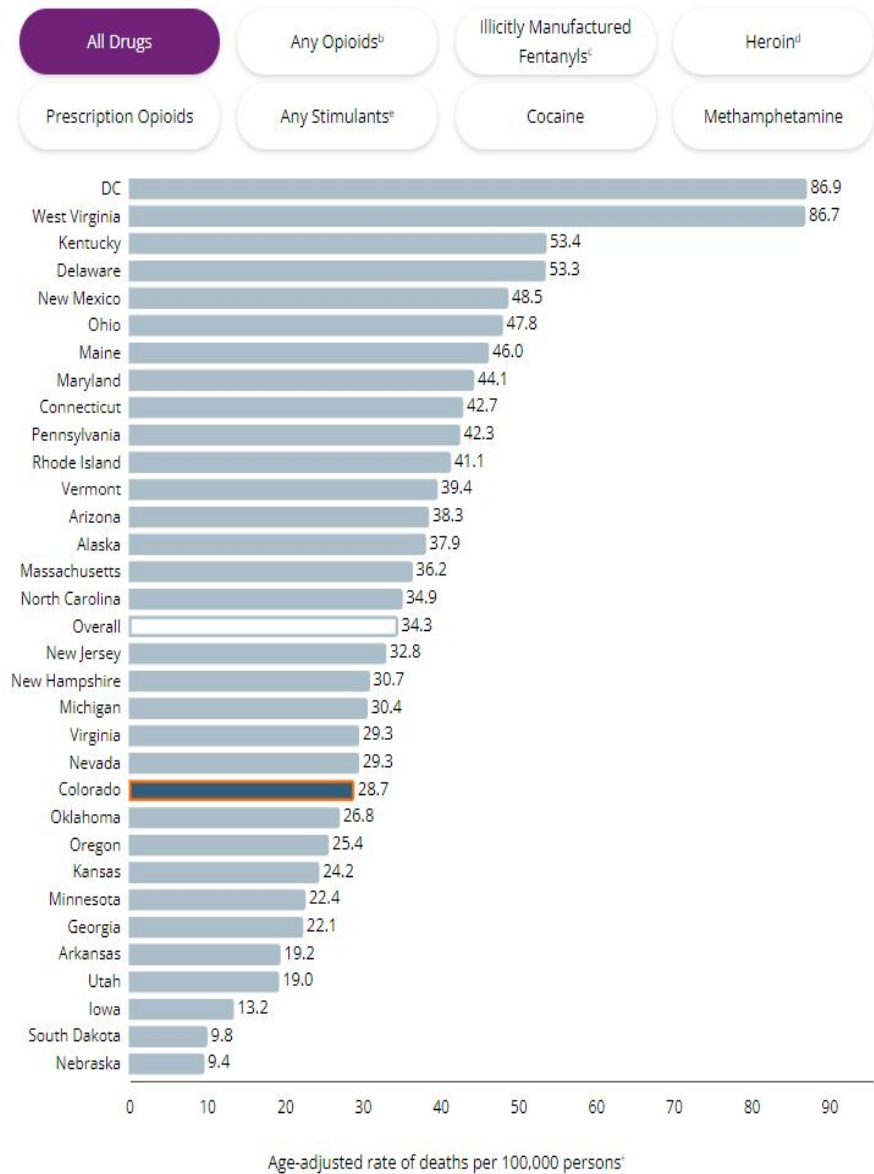
<https://www.cdc.gov/drugoverdose/od2a/index.html>



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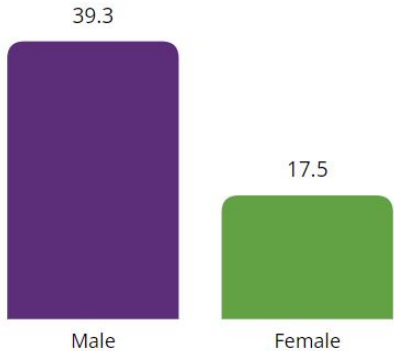
# SUDORS National Dashboard: Fatal Overdose Data



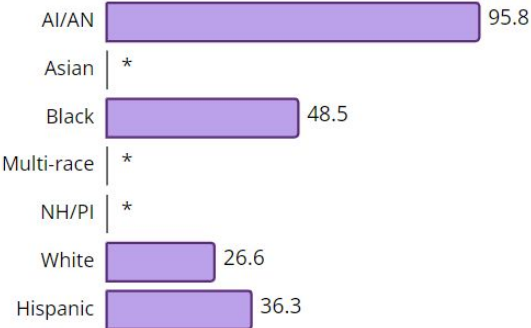


# SUDORS National Dashboard, Colorado 2021 final data

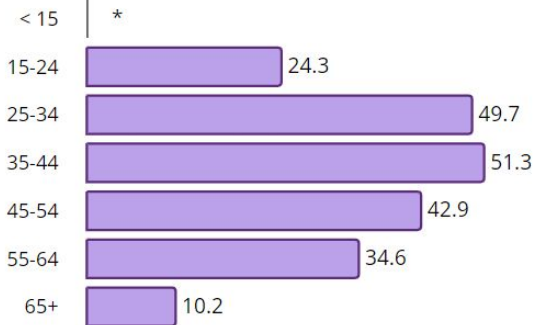
By Sex



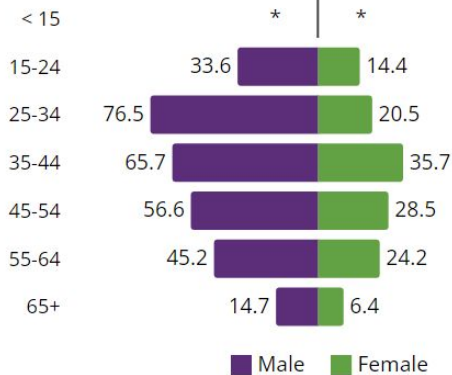
By Race/Ethnicity



By Age (In Years)



By Age and Sex



# Colorado SUDORS Publications

No. 119

HealthWatch

February 2022

## Colorado's State Unintentional Drug Overdose Reporting System: Overdose Deaths from July 2019 to December 2020, an 18-month summary

Prepared by:

Christine Demont, MPH, Kirk Bol, MSPH

### Introduction

The use and misuse of prescription and illicit drugs resulting in death remain a public health crisis in Colorado and the United States.<sup>1,2,3</sup> The U.S. Centers for Disease Control and Prevention funds and maintains the State Unintentional Drug Overdose Reporting System (SUDORS), through the Overdose Data-to-Action grant to address this public health issue. SUDORS aims to bring together multiple sources of data to get a better understanding of the circumstances, toxicology and risk factors associated with deaths resulting from the overdose of drugs to guide prevention efforts. The Colorado Department of Public Health and Environment began collecting data for the SUDORS program in January of 2020. This report contains the data for the 18 month period, from July 2019 to December 2020, for the state of Colorado.

### Methods

Data in this report comes from the State Unintentional Drug Overdose Reporting System (SUDORS) data collected by The Colorado Department of Public Health and Environment. The SUDORS program aims to collect data from death certificates and coroner/medical examiner reports, which include a variety of documents including autopsy reports, toxicology reports, investigation summaries and scene descriptions. Inclusion of cases in the SUDORS system is based on the death certificate underlying cause of death codes using the International Classification of Disease, 10th Revision (ICD-10) (X40-X44 and Y10-Y14, inclusive). The results presented reflect both unintentional (accidental) drug overdose deaths and those of undetermined manner, and reflect all relevant deaths occurring in Colorado, irrespective of residency, between July 2019 and December 2020.

Data in this report are presented as counts and percentages of the total Colorado deaths captured by the SUDORS system. Data are presented by demographic categories, residential information, contributing circumstances, and substances that caused death. Additionally, this report includes select enhanced SUDORS data elements: type

1. Hedegaard H, Minino AM, Warner M. Drug overdose deaths in the United States, 1999-2017. *NCHS Data Brief*, no 329. Hyattsville, MD: National Center for Health Statistics; 2018.
2. Attkisson C, Tazet L, Quinn K. Trends and Geographic Patterns in Drug and Synthetic Opioid Overdose Deaths—United States, 2013-2019. *MMWR Morb Mortal Wkly Rep* 2021;70:202-207. DOI: <https://doi.org/10.15585/mmwr.mm7006a4>
3. Demont, C, Vaccum R, Bol, K. Drug Overdose Deaths in Colorado: Final Data for 2019-2020. *HealthWatch* 118. Denver, CO: Center for Health and Environmental Data, Colorado Department of Public Health and Environment. January, 2022.



No. 123

HealthWatch

August 2023

## Comparison of Adolescent Drug Overdose Deaths in Colorado compared to the United States, State Unintentional Drug Overdose Reporting System (SUDORS), July 2019 to December 2021

Prepared by:

Christine Demont, MPH, Kirk Bol, MSPH

### Introduction

Drug overdose deaths have increased in Colorado and the United States over the past decade across all age groups,<sup>1</sup> and sharply among adolescents over the past few years.<sup>2</sup> A recent *Morbidity and Mortality Weekly Report (MMWR)* found that monthly drug overdose deaths nearly tripled among adolescents aged 10 to 19 years during the first 2 years of the COVID-19 pandemic.<sup>3</sup> Median monthly overdose deaths among adolescents aged 10-19 years increased 109% from July-December 2019 to July-December 2021 and median monthly drug overdose deaths involving illicitly manufactured fentanyl (IMF) increased 182%.<sup>1</sup> The Centers for Disease Control and Prevention funds and maintains timely data related to unintentional and undetermined intent drug overdose deaths by participating jurisdiction through the State Unintentional Drug Overdose Reporting System (SUDORS), through the Overdose Data-to-Action grant.<sup>4</sup> SUDORS collects data from multiple sources to get a better understanding of the circumstances, toxicology and risk factors associated with deaths resulting from the overdose of drugs to guide prevention efforts. This report compares drug overdose deaths and surrounding circumstances among adolescents in Colorado with national estimates.

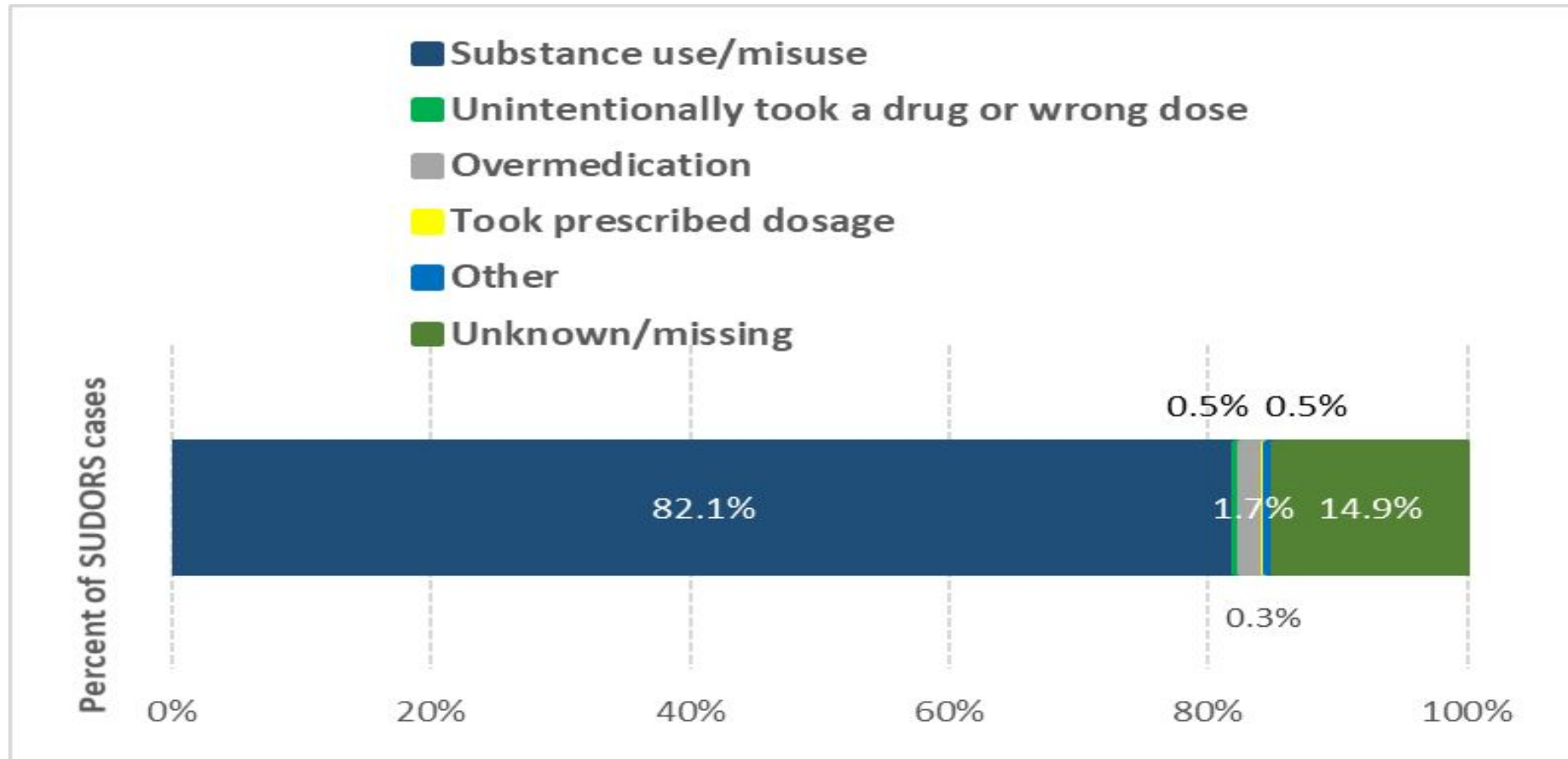
### Methods

The Colorado data in this report comes from the State Unintentional Drug Overdose Reporting System (SUDORS) data collected by The Colorado Department of Public Health and Environment. National estimates come from the published *MMWR* report, "Drug Overdose Deaths Among Persons Aged 10-19 Years — United States, July 2019-December 2021" published on December 16, 2022.<sup>3</sup> The SUDORS program collects data from death certificates and coroner/medical examiner reports, which include autopsy reports, toxicology reports, investigation summaries and scene descriptions. Inclusion of cases in the SUDORS system is based on the death certificate underlying cause of death codes using the International Classification of Disease, 10th Revision (ICD-10) (X40-X44 and Y10-Y14, inclusive). The results presented reflect both unintentional (accidental) drug overdose deaths and those of undetermined manner that occurred between July 2019 and December 2021.

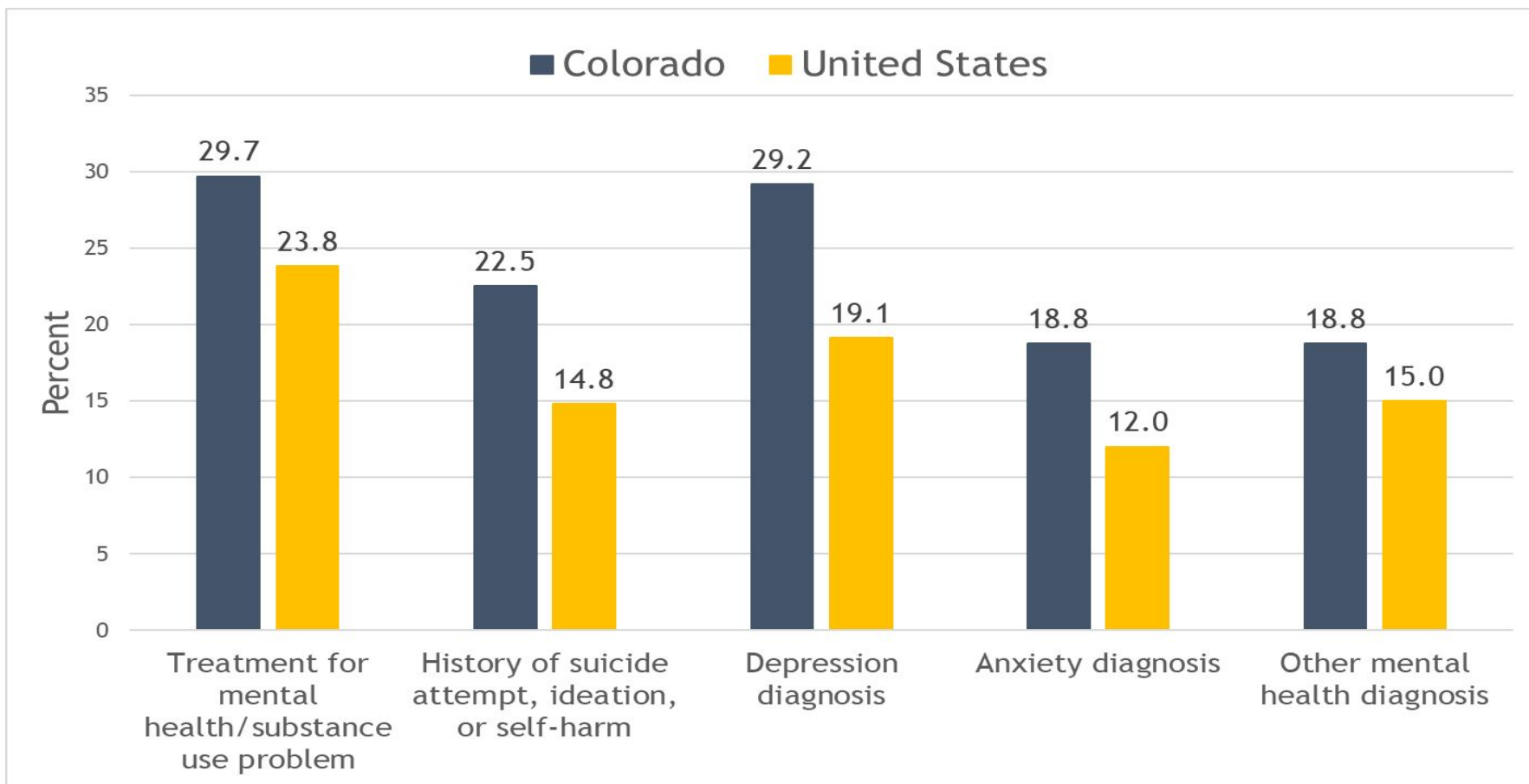
Data in this report are presented as counts and percentages of the total deaths captured by the SUDORS system. Data are presented by demographic categories, contributing circumstances, and substances that caused death. Additionally, this report includes select enhanced SUDORS data elements: scene evidence of drug use, presence of bystanders, drug use history, mental health conditions, and other risk factor variables and characteristics. The source of these data come from the combination of information gathered from both the death certificate and, more comprehensively, the coroner/medical examiner investigations and toxicology results.



# Drug overdose deaths (unintentional and undetermined manner) by type of overdose



# Mental Health Conditions and Treatment among unintentional drug overdose decedents ages 10-19 years



# Comparison between Intentional versus Unintentional drug overdose

Circumstance	Intentional Drug Overdose Deaths (N=321)		Unintentional Drug Overdose Deaths (N=2,557)	
	Number	Percent	Number	Percent
<b>Current diagnosed mental health problem</b>	<b>221</b>	<b>68.9</b>	<b>765</b>	<b>29.9</b>
<b>Ever treated for mental health/substance use problem</b>	<b>177</b>	<b>55.1</b>	<b>555</b>	<b>21.7</b>
<b>Current mental health/substance use treatment</b>	<b>145</b>	<b>45.2</b>	<b>337</b>	<b>13.2</b>
<b>Problem with alcohol</b>	<b>120</b>	<b>37.4</b>	<b>789</b>	<b>30.9</b>
<b>Problem with other substance</b>	<b>116</b>	<b>36.1</b>	<b>2,269</b>	<b>88.7</b>
<b>Intimate partner problem</b>	<b>87</b>	<b>27.1</b>	<b>104</b>	<b>4.1</b>
<b>Family relationship problem</b>	<b>68</b>	<b>21.2</b>	<b>89</b>	<b>3.5</b>
<b>Job problem</b>	<b>51</b>	<b>15.9</b>	<b>17</b>	<b>0.7</b>

Source: Colorado Violent Death Reporting System, State Unintentional Drug Overdose Reporting System, Colorado Department of Public Health and Environment, July 2019-Dec 2021.



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# Trends in Buprenorphine Treatment for Opioid Use Disorder in Colorado

# Background

- Opioid overdoses continue to rise in Colorado\*
- Buprenorphine is medication-assisted treatment for opioid use disorder (OUD)
- Purpose: Identify trends and patterns of buprenorphine treatment across Colorado

\* [https://www.cdc.gov/nchs/pressroom/sosmap/drug\\_poisoning\\_mortality/drug\\_poisoning.htm](https://www.cdc.gov/nchs/pressroom/sosmap/drug_poisoning_mortality/drug_poisoning.htm)

# Methods

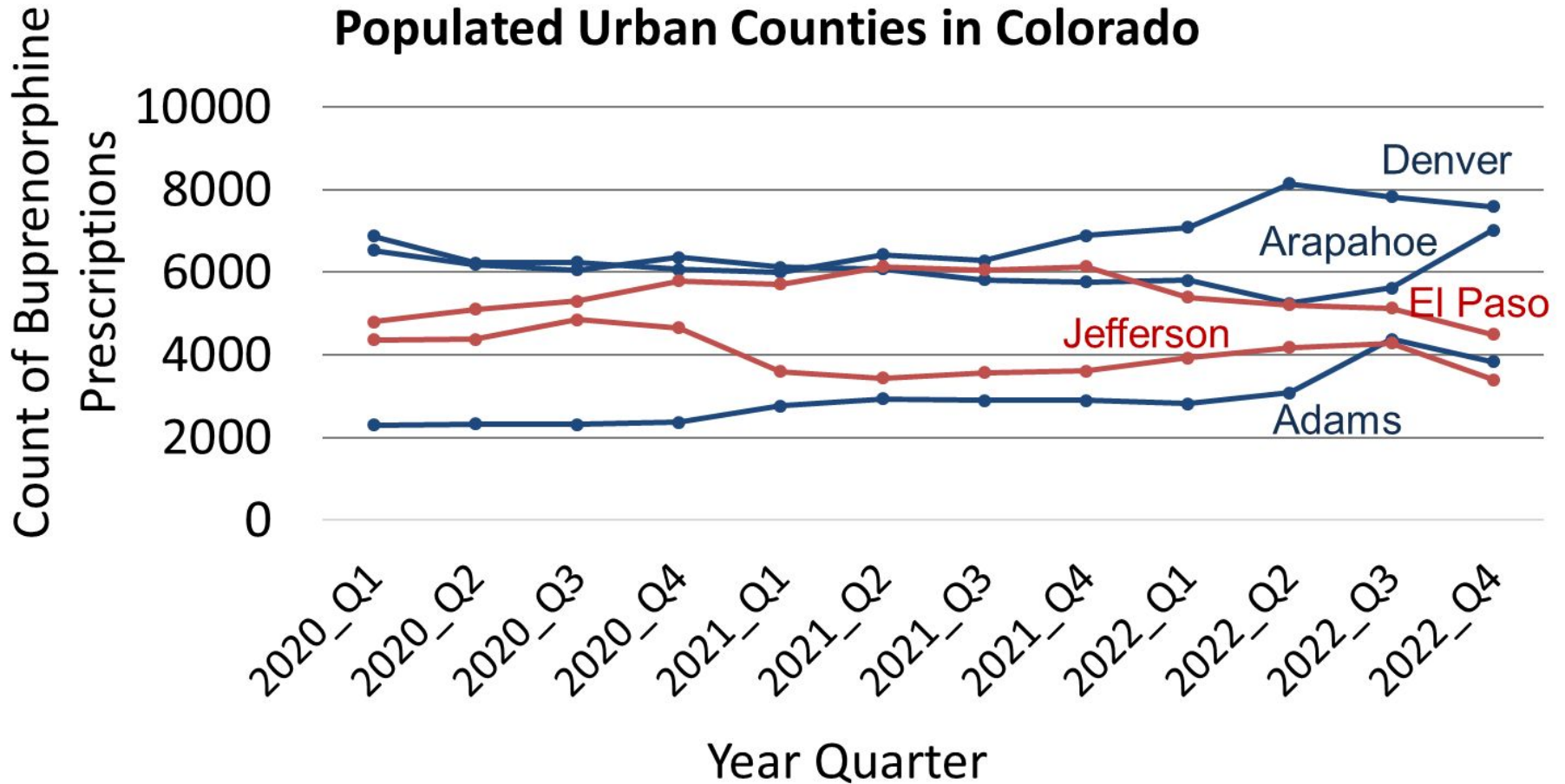
- Data: Colorado Prescription Drug Monitoring Program (PDMP) data 1/2020 to 12/2022
- Analysis by year quarter and county:
  - Count buprenorphine prescribers, patients, and prescriptions
  - Avg. patients per prescriber, days' supply, and dose
  - Percent of buprenorphine-naïve patients
  - Percent of prescribers with buprenorphine “X-waiver” (2021)





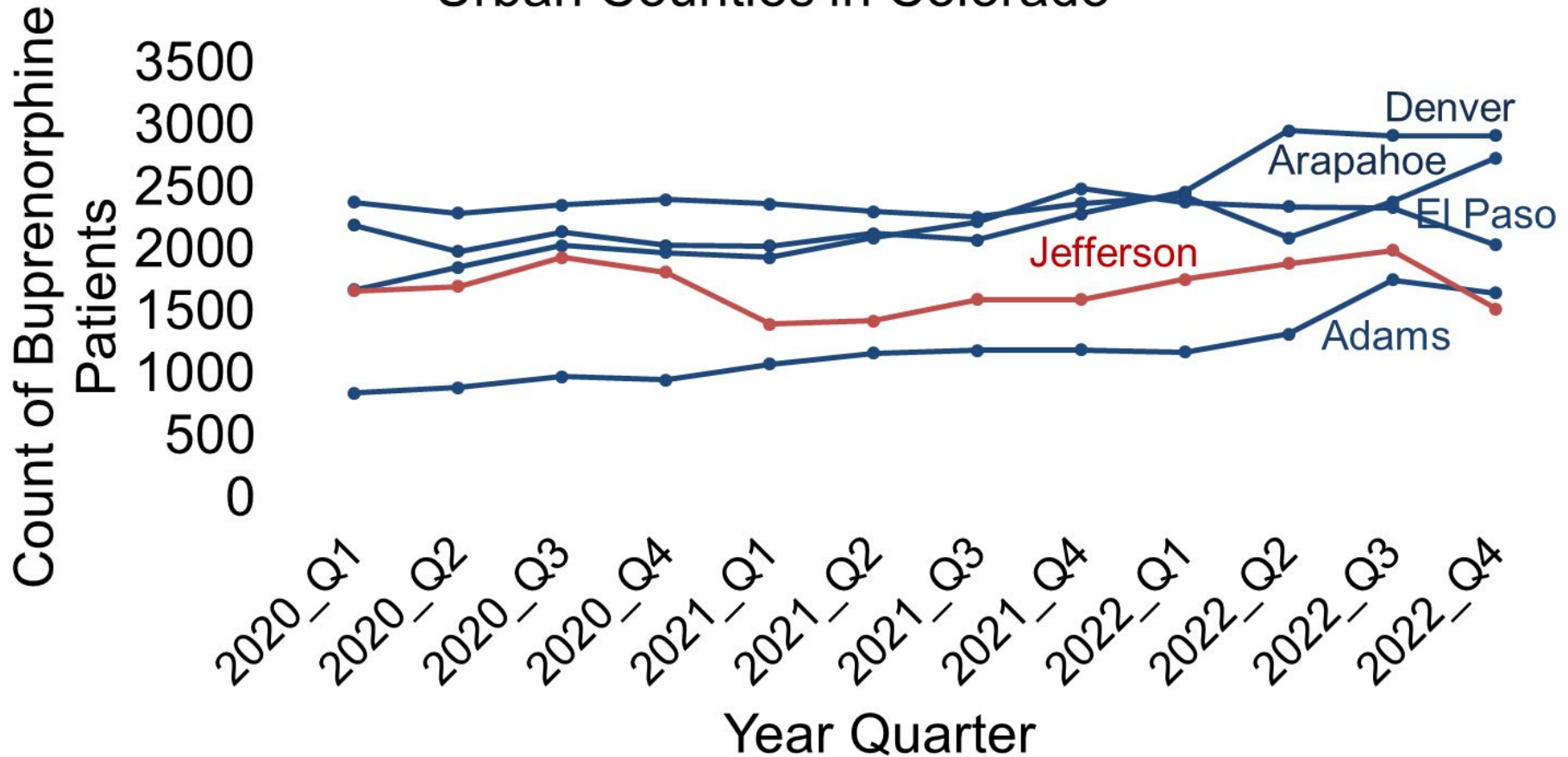
# Results

## Count of Buprenorphine Prescriptions in Most Populated Urban Counties in Colorado



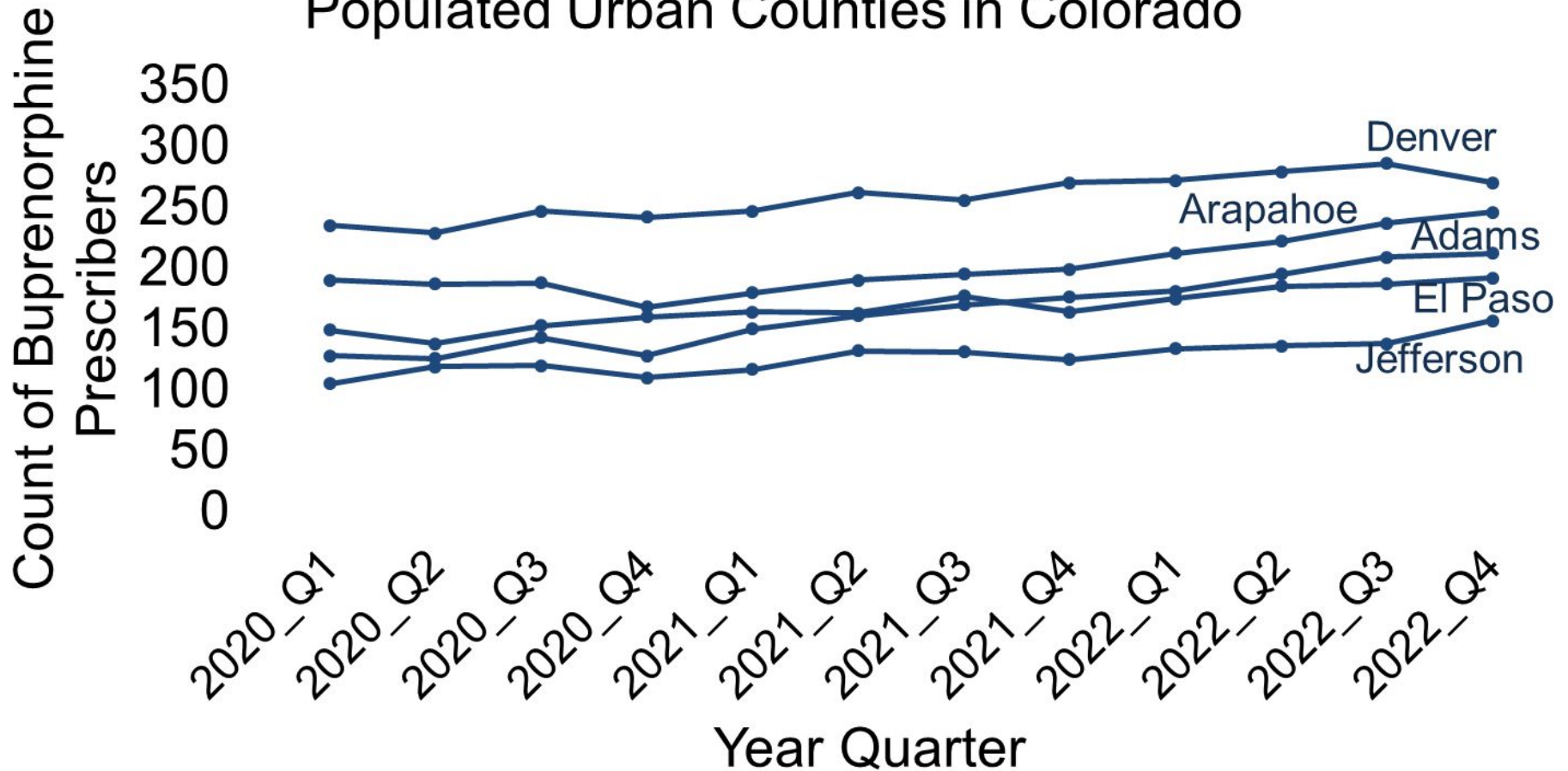
# Results

## Count of Buprenorphine Patients in Most Populated Urban Counties in Colorado



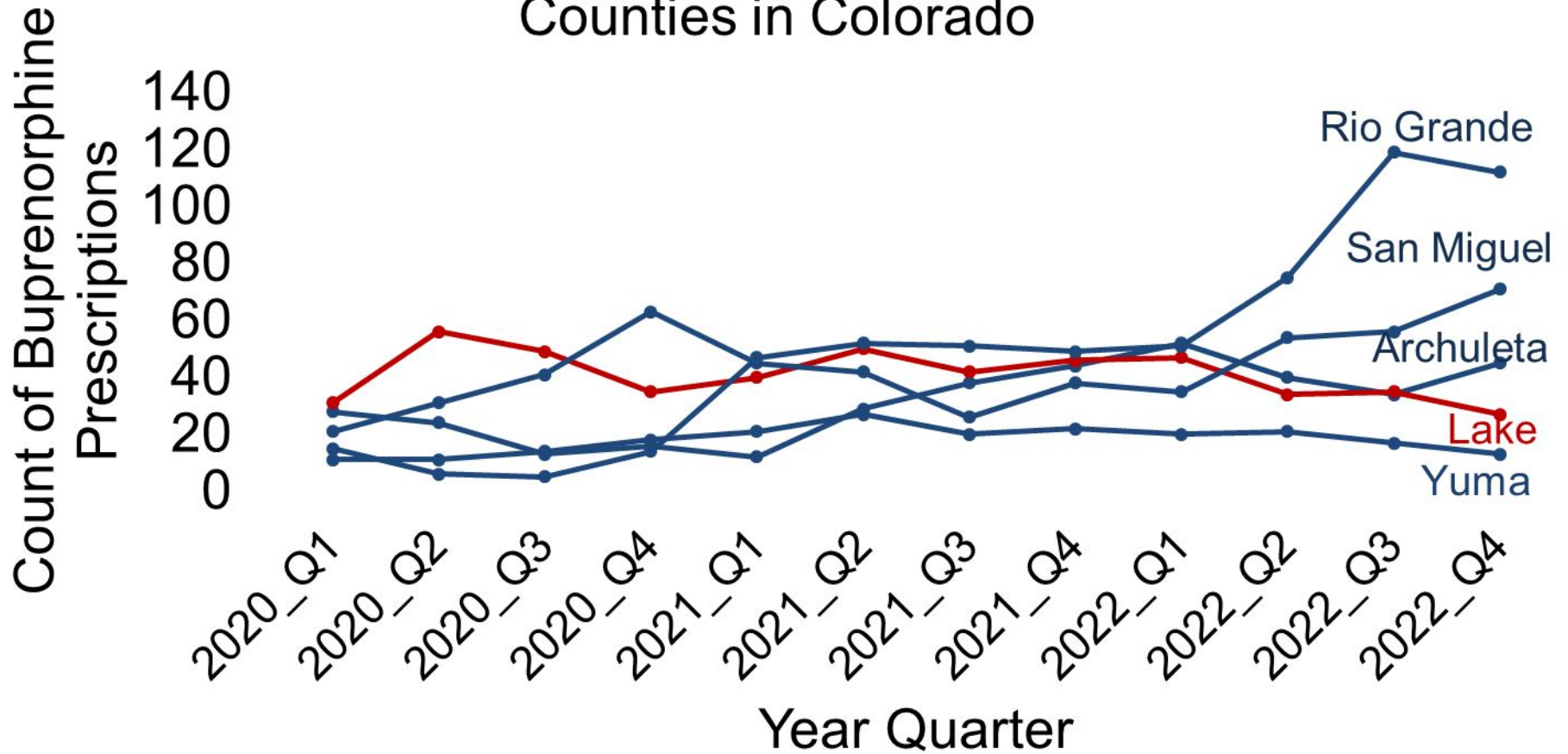
# Results

## Count of Buprenorphine Prescribers in Most Populated Urban Counties in Colorado



# Results

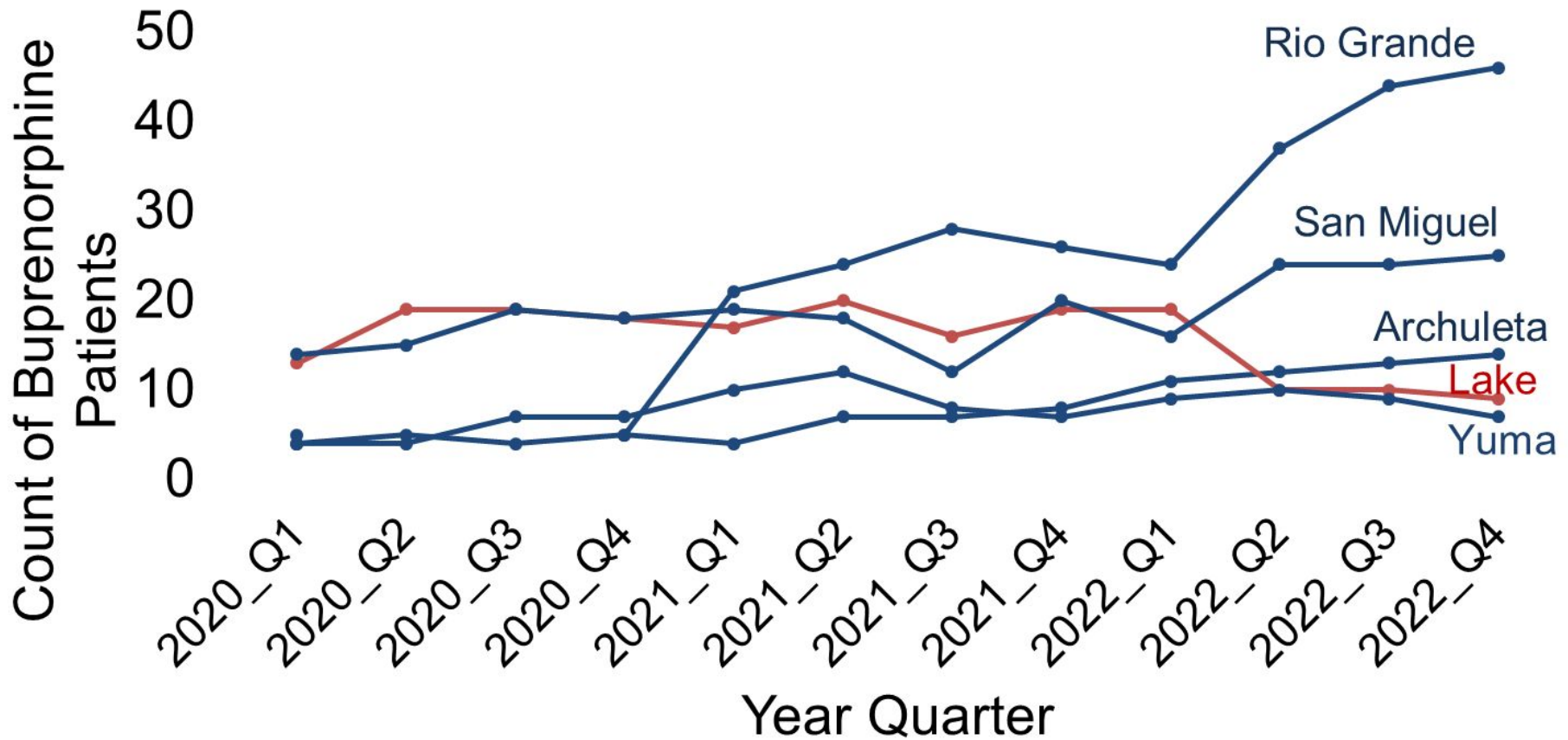
## Count of Buprenorphine Prescriptions in Rural Counties in Colorado





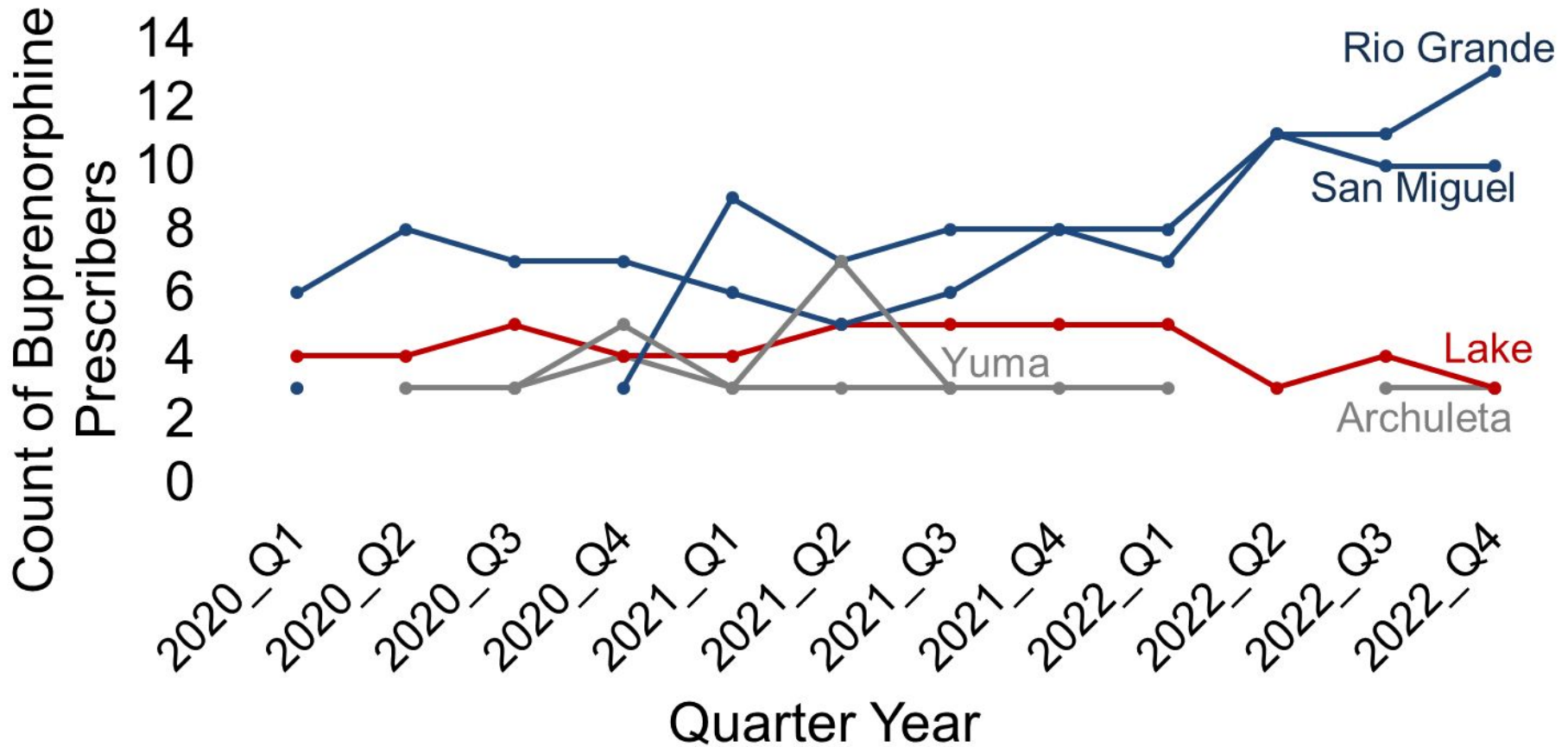
# Results

## Count of Buprenorphine Patients in Rural Counties in Colorado



# Results

## Count of Buprenorphine Prescribers in Rural Counties in Colorado



# Results

- Three of Colorado's rural counties, Crowley (40%), Lake (33.3%), and Saguache (33.3%) Counties had the highest percent of prescribers with a buprenorphine waiver in 2021 among all counties
- Average number of patients per prescriber did not change for most counties from Q1 2020 to Q4 2022
- Average days supply ranged from 3 to 30 days
- Percent of buprenorphine-naïve patients remained stable in urban counties

# Conclusions

- More federal funding + less restrictive federal requirements → more buprenorphine prescriptions and prescribers
- Next steps:
  - Include age and other demographics
  - Length of time on buprenorphine
  - Colorado totals
  - Public dashboard launch





# Dashboard Demo

# Q & A



# Data Resources

## Where to access data?

- [CDPHE Drug Overdose dashboard](#)
- Historic Drug Overdose Trends ([2000-2019](#) and [2000-2022](#))
- NEMESIS Non-Fatal [Opioid Overdose Tracker](#)
- [Consortium Opioid Dashboard](#)
- [Health Watch publications](#)
- CDPHE [Open Data Portal](#)
- [SEOW data publications](#)
- [SEOW fentanyl brief](#)
- [CDPHE Mortality Statistics Dashboard](#)
- [Colorado SUDORS Website](#)

# THANKS!

**Barbara Gabella, MSPH**  
Senior Epidemiologist  
[barbara.gabella@state.co.us](mailto:barbara.gabella@state.co.us)

**Katie Sullivan, PhD**  
Prescription Drug Epidemiologist  
[katherine.sullivan@state.co.us](mailto:katherine.sullivan@state.co.us)

**Kylie Yocum, MPH**  
Drug Epidemiologist  
[kylie.yocum@state.co.us](mailto:kylie.yocum@state.co.us)

**Christine Demont, MPH**  
Mortality Epidemiologist  
[christine.demont@state.co.us](mailto:christine.demont@state.co.us)

