

Opioid-Related Overdose Deaths in California, 2023

California Department of Public Health
Substance and Addiction Prevention Branch
Overdose Prevention Initiative

California continues to face a serious public health crisis with the dynamic and rapidly changing opioid epidemic having substantial health impacts. This brief describes demographic differences in opioid-related overdose fatalities in 2023 and compares the burden of drug-related overdose to other acute causes of death in California.

Introduction

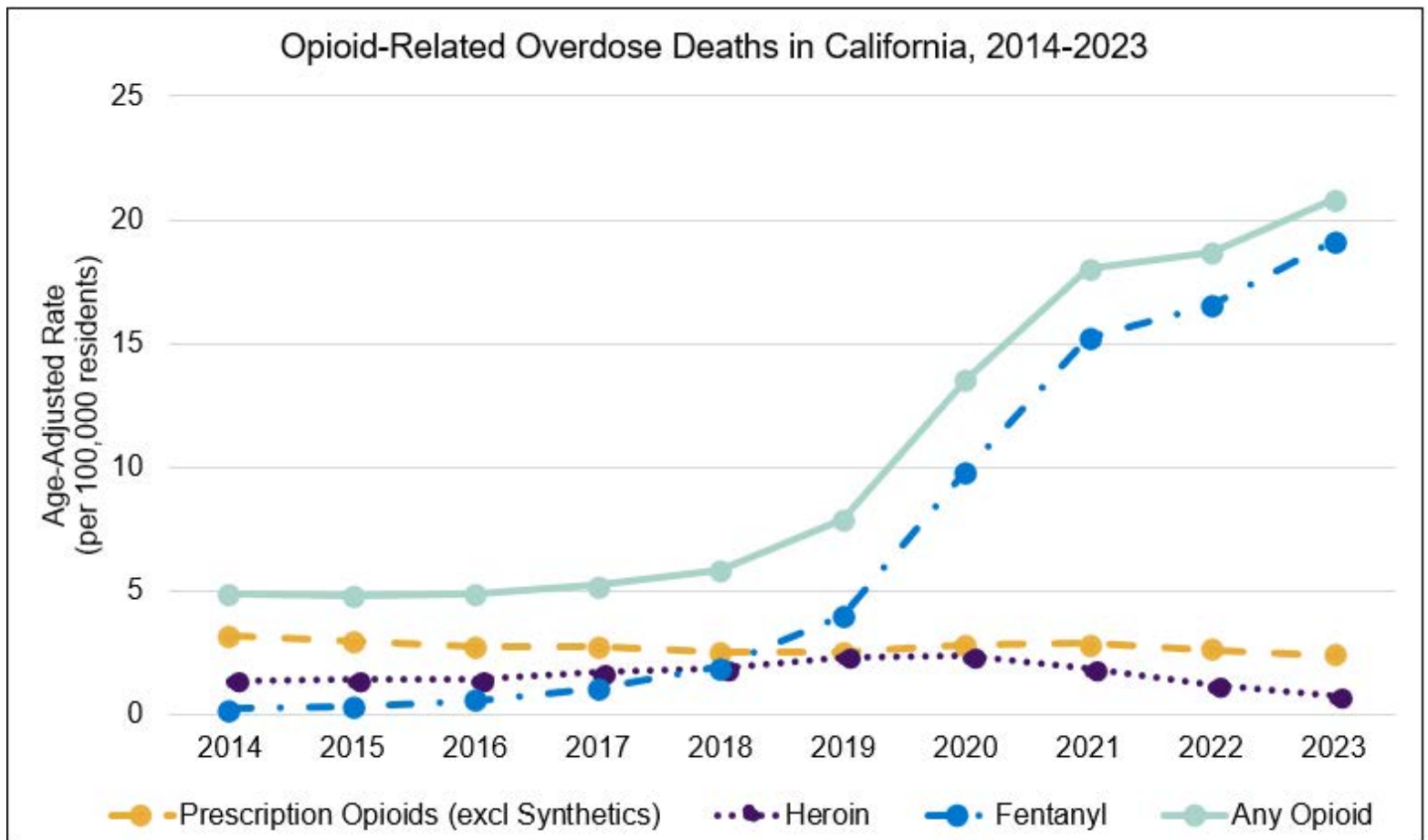
In 2023, there were 11,359 all drug-related overdose deaths in California, with an age-adjusted rate of 29.4 deaths per 100,000 residents. **The majority (69%) of these drug-related overdose deaths involved an opioid, a total of 7,847 opioid-related overdose deaths.** This represents an age-adjusted rate of 20.8 opioid-related overdose deaths per 100,000 residents. Of the opioid-related overdose deaths, fentanyl (a synthetic opioid) contributed to 7,137 drug overdose deaths, with an age-adjusted rate of 19.1 fentanyl-related deaths per 100,000 residents.

Males continued to have considerably higher any opioid-related overdose death rates when compared to females. Notably, fentanyl-related overdose death rates were dramatically higher for males than females. Males had an age-adjusted rate of 30.2 deaths per 100,000 residents while females had an age-adjusted rate of 7.7 deaths per 100,000 residents.

Opioids are often used in combination with other drugs. This includes two or more substances taken within a short period of time or taken together, regardless of intent (e.g., intentionally or unintentionally). Multiple substances may be taken together unintentionally if drugs have been mixed or cut with other substances.¹ In 2023,

- 3,979 deaths involved an opioid and a psychostimulant with abuse potential (e.g., methamphetamine), an age-adjusted rate of 10.7 per 100,000 residents.
- 1,151 deaths involved an opioid and cocaine, an age-adjusted rate of 2.9 per 100,000 residents.
- 607 deaths involved an opioid and a benzodiazepine, an age-adjusted rate of 1.6 per 100,000 residents.

Opioid-Related Overdose Deaths Over Time

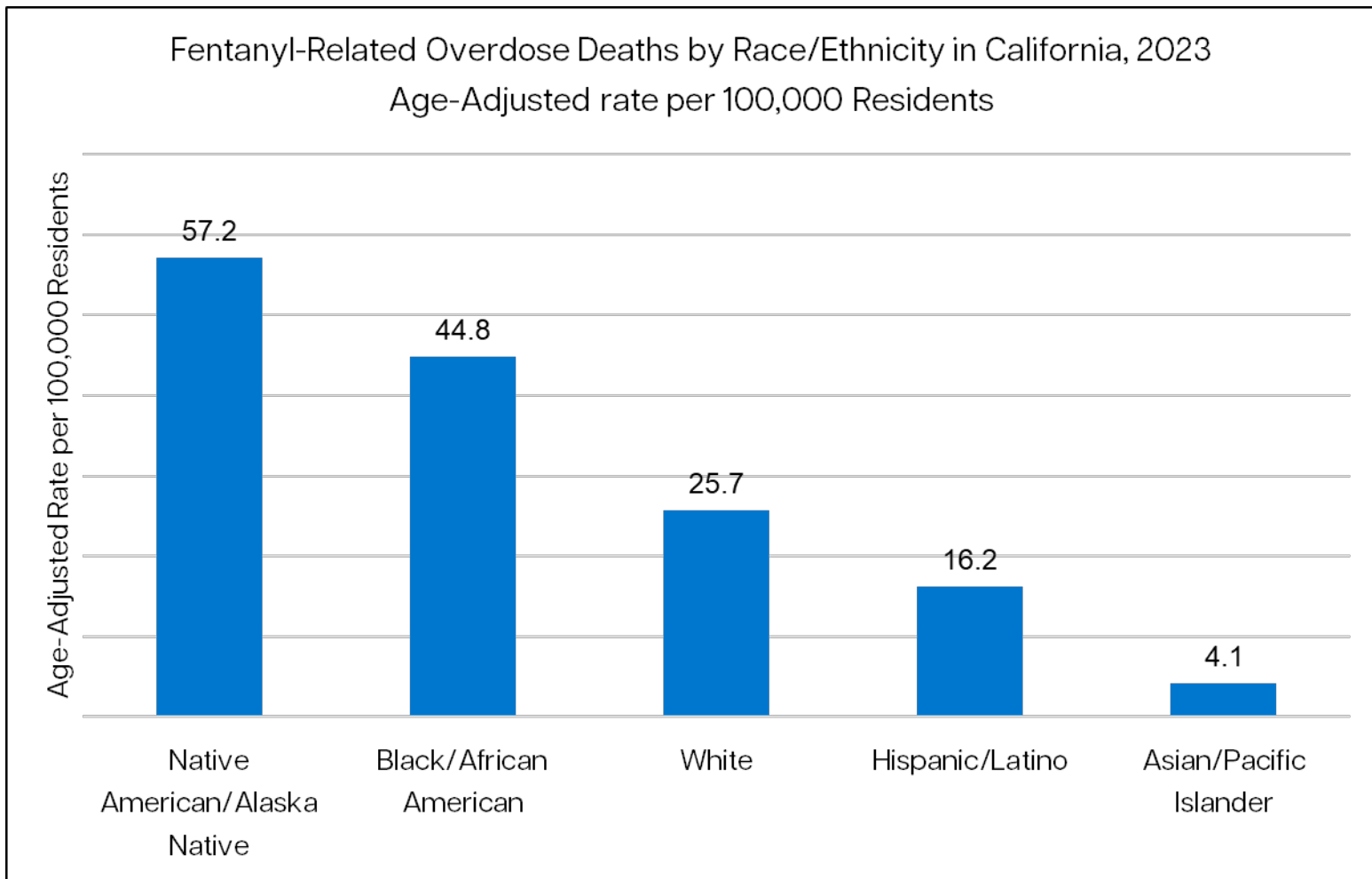


Any opioid-related and fentanyl-related overdose deaths have substantially increased from 2014 to 2023. However, age-adjusted overdose death rates for heroin and prescription opioids (excluding synthetics) have remained relatively constant over the same time period. There has been a large increase in any opioid-related overdose death rates in California since 2018, and in particular, fentanyl-related overdose death rates have increased substantially since 2018.

From 2022 to 2023,

- Any opioid-related (including fentanyl) overdose death rates increased by 11.2%, from 18.7 per 100,000 residents in 2022 to 20.8 per 100,000 residents in 2023.
- Fentanyl-related overdose death rates increased by 15.1%, from 16.6 per 100,000 residents in 2022 to 19.1 per 100,000 residents in 2023.
- Heroin-related overdose death rates decreased by 35.2%, and prescription opioid (excluding synthetics)-related overdose death rates had a decrease of 7.3%.

Fentanyl-Related Overdose Deaths by Race/Ethnicity



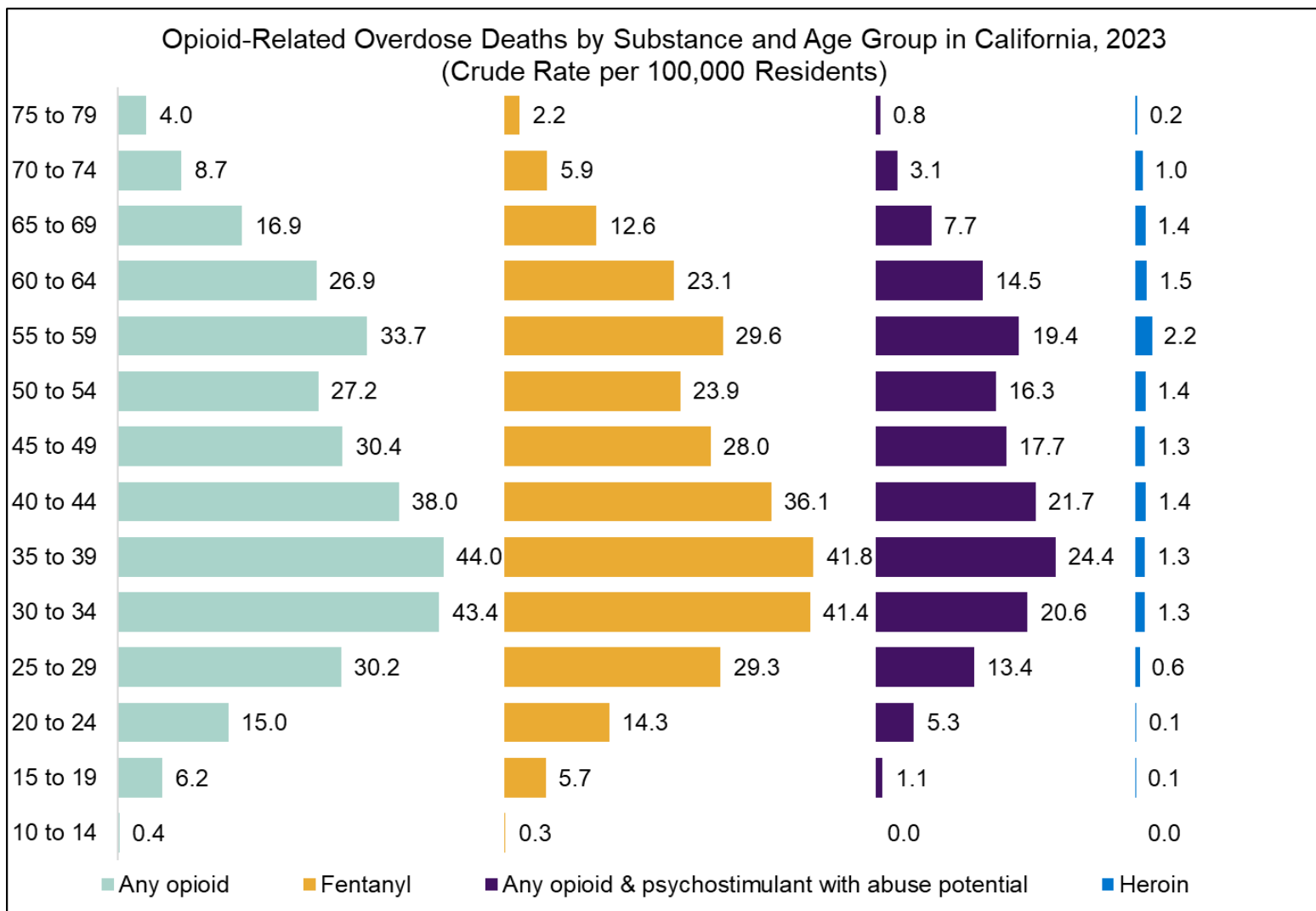
In 2023, Native American/Alaskan Natives had the highest rate of fentanyl-related overdose deaths compared to individuals of other race/ethnicities, with an age-adjusted rate of 57.2 per 100,000 residents. Black/African Americans had the second highest age adjusted death rate for fentanyl-related overdose at 44.8 per 100,000 residents. In contrast, Asian/Pacific Islanders had the lowest rate of fentanyl-related overdose deaths with an age-adjusted rate of 4.1 per 100,000 residents. White (n= 3,299) and Hispanic (n=2,504) individuals experienced the largest number of fentanyl-related overdose deaths followed by Black/African Americans (n=1,011). Death rates for any opioid-related overdose followed a similar pattern, with the highest rate among Native American/Alaska Natives and the lowest rate among Asian/Pacific Islanders.

Opioid-Related Overdose Deaths by Substance and Age

Younger adult age groups (30 to 39 years) had disproportionately higher rates of any opioid-related and fentanyl-related overdose deaths compared to all other age groups with the highest rates among 35 to 39-year-olds.

Among 35 to 39-year-olds, the age-specific rate (i.e., crude rate) of any opioid-related overdose deaths was 44 per 100,000 residents. Similarly, the age-specific rate of fentanyl-related overdose deaths was 41.8 per 100,000 residents in 2023. 35 to 39-year-olds also experienced the highest age-specific rate of overdose deaths involving both opioids and psychostimulants with abuse potential (24.4 per 100,000 residents).

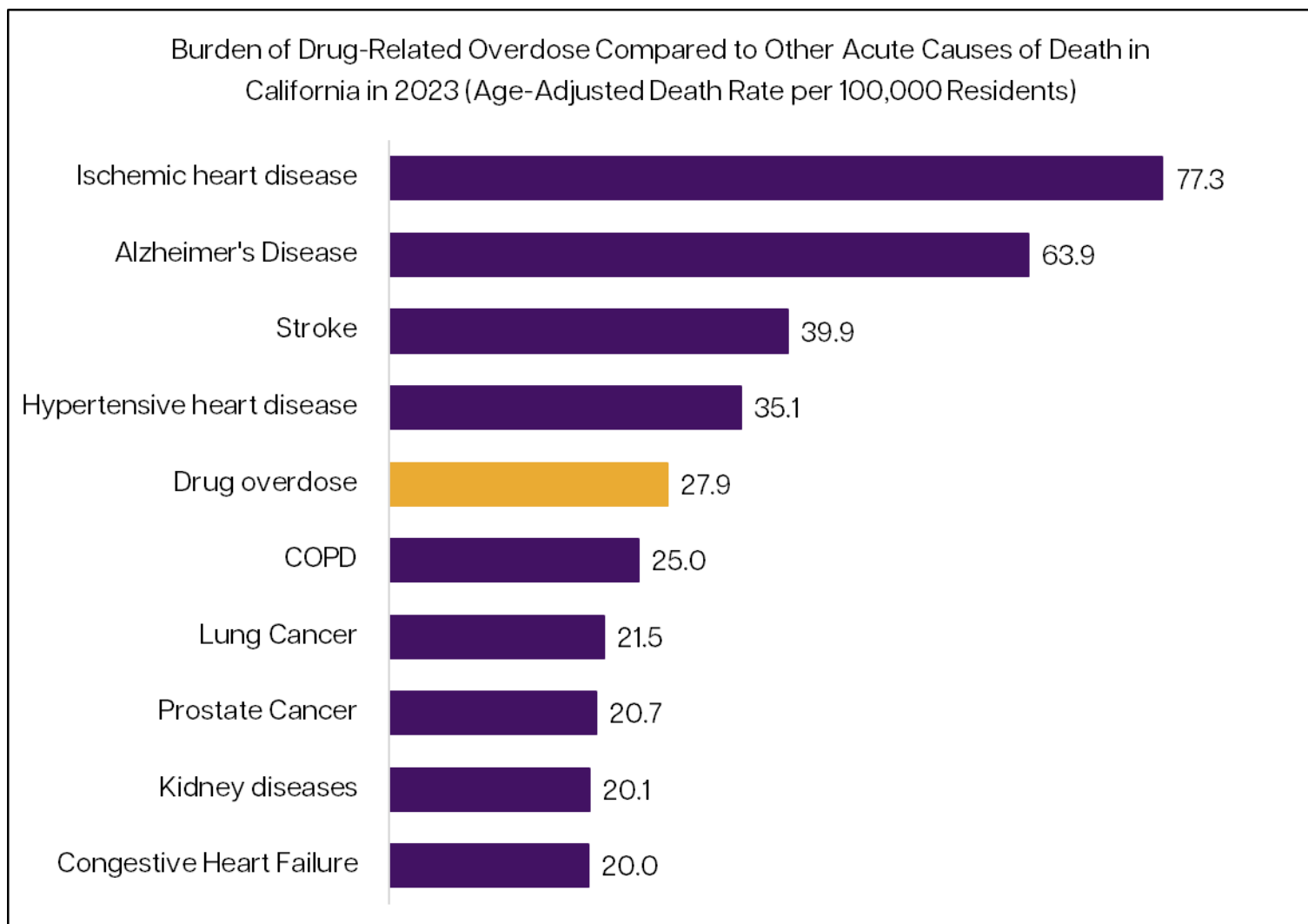
In contrast, the highest heroin-related overdose death rate was among 55 to 59-year-olds, at an age-specific rate of 2.2 per 100,000 residents.



Burden of Drug-Related Overdose Deaths Compared to Other Acute Causes of Death in 2023*

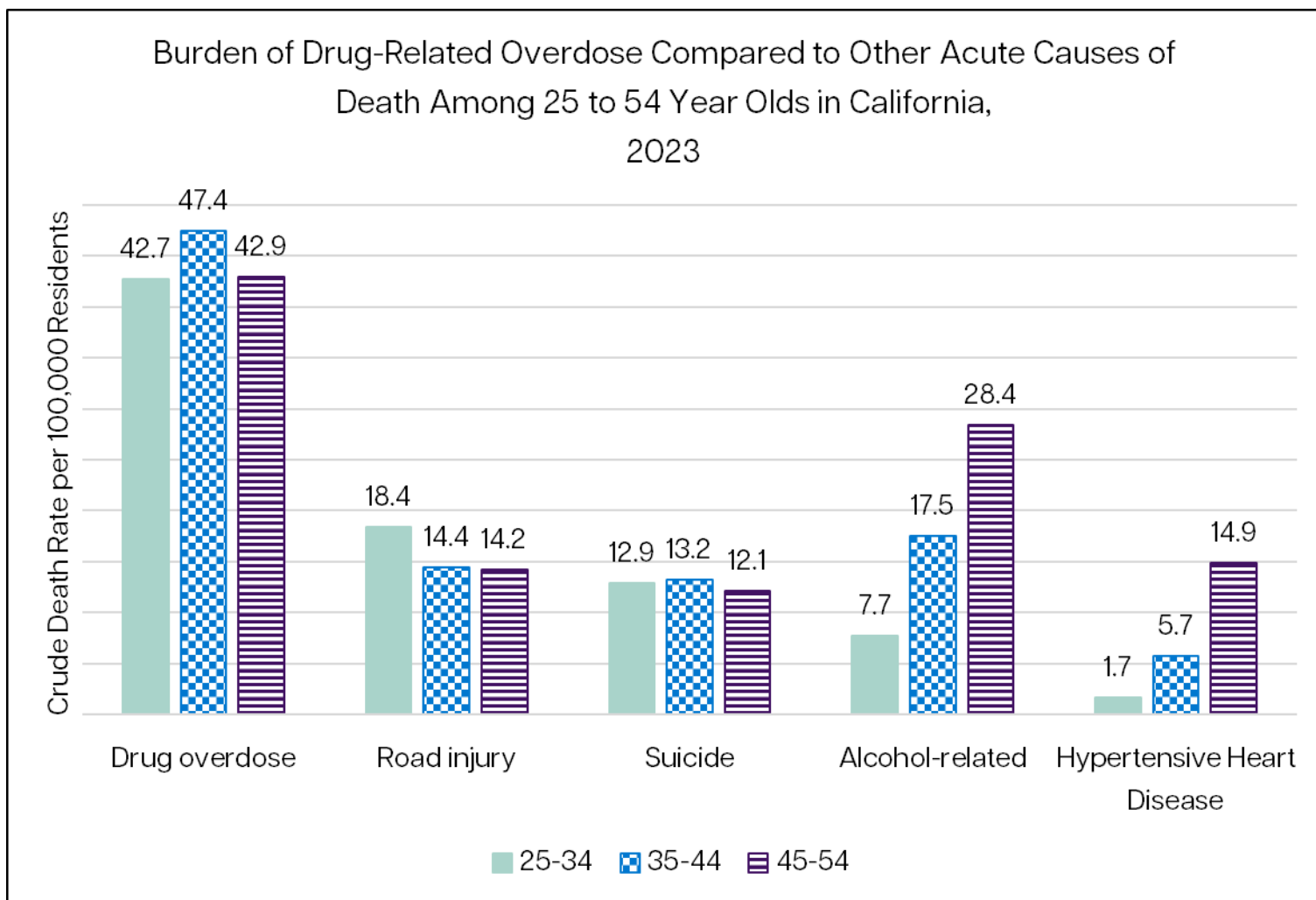
Drug-related overdose deaths were the fifth-leading acute cause of death, with an age-adjusted death rate of 27.9 per 100,000 residents in 2023. Strikingly, the drug-related overdose age-adjusted death rate was greater than the age-adjusted death rates for COPD, lung cancer, prostate cancer, kidney diseases, and congestive heart failure.

Among males, drug-related overdose deaths were the third-leading acute cause of death, with an age-adjusted death rate of 43.8 per 100,000 residents. This rate was greater than the age-adjusted death rate for both stroke (41.7 per 100,000 residents) and hypertensive heart disease (39.7 per 100,000 residents). Drug-related overdose was not in the top 10 acute causes of death for females.



*Data from the California Community Burden of Disease Engine

Burden of Drug-Related Overdose Deaths Compared to Other Acute Causes of Death in 2023*



In 2023, drug-related overdose deaths had the highest age-specific death rate among individuals 25-34, 35-44, and 45-54 years old. Additionally, drug-related overdose deaths were the second highest cause of death among 15- to 24-year-olds and 55- to 64-year-olds (not included in the figure) in 2023. The highest age-specific death rate among 15-24-year-olds was road injury at 14.9 deaths per 100,000 residents. The highest age-specific death rate among 55- to 64-year-olds was ischemic heart disease at 94.3 deaths per 100,000 residents.

*Data from the California Community Burden of Disease Engine

Health Equity

The rates of drug-related overdose deaths differ by race/ethnicity and age. It is important to note these differences while considering the impact of broader contextual factors like social drivers of health. In 2023, Native Americans/Alaska Natives had the highest rate of fentanyl-related overdose deaths compared to individuals of other race/ethnicities. Black/African-Americans had the second highest rate. Additionally, in 2023, younger adult age groups (30 to 39 years) had disproportionately higher any opioid-related and fentanyl-related overdose death rates than any other age group. Such differences give rise to questions around the role of adverse childhood experiences, trauma, family history of drug use, availability of illicit drugs in the community, access to mental and health care services, economic stability, and housing stability, among other factors in impacting drug-related overdoses.

These race/ethnicity and age disparities convey the need for interventions tailored to non-Hispanic Native American/Alaskan Native, non-Hispanic Black/African-American, and younger adult populations who are experiencing higher rates of opioid- and fentanyl-related overdose deaths. The disparities also underscore the need for tailored and targeted cross-sector solutions to prevent opioid- and fentanyl-related overdose deaths, including upstream prevention efforts to address population level behavioral health.

Conclusion

In 2023, opioid- and fentanyl-related overdose deaths increased in California. Disparities in opioid- and fentanyl-related overdose death rates among different age groups and race/ethnicities are important to consider when planning prevention efforts. Drug overdose is more complex than one individual's decision to use drugs. Efforts to address the impacts of the social determinants of health and other underlying factors on the drug overdose epidemic are needed.

About the Overdose Prevention Initiative

CDPH's Overdose Prevention Initiative (OPI) works on the complex and changing nature of the drug overdose epidemic through prevention and research activities. OPI works to advance and amplify CDPH's unified response to reduce the harms from substance misuse and end the evolving drug overdose crisis in California through increased information sharing, policy development, and implementation of its seven core strategies²:

- Improve CDPH and state agency coordination.
- Improve state and local surveillance.
- Support individual and community resiliency by addressing upstream drivers of health.
- Increase public awareness and education.
- Expand naloxone access, saturation, and education.
- Promote harm reduction and drug checking services.
- Promote treatment and reduce stigma

Prevention Resources:

- [Overdose Prevention Initiative \(OPI\) Landing Page](#)
- [Persons Experiencing Chronic Pain](#)
- [People Who Use Drugs](#)
- [Information about Naloxone](#)
- [Information about Fentanyl](#)
- [Information about Opioids](#)
- [Drug Overdose Response](#)

Data retrieved from:

- [California Overdose Surveillance Dashboard](#)
- [California Community Burden of Disease Engine](#)

Technical Notes:

- The case definition for drug overdose differs between the California Community Burden of Disease Engine and the California Overdose Surveillance Dashboard for methodological reasons. Data should not be compared across both data sources but can be compared within data sources. For the California Community Burden of Disease Engine, drug overdose includes “accidental poisonings by drugs” ICD10 codes (X40-X44) and “substance use disorder” ICD10 codes (F11-F16, F18, F19), but it does not include “intentional self-poisoning by drugs” (X60-X64), “assault by drug poisoning” (X85), and “drug poisoning of undetermined intent” (Y10-Y14). For the California Overdose Surveillance Dashboard, drug overdose includes all overdose deaths caused by acute poisonings regardless of intent (e.g., unintentional, intentional, assault, or undetermined).
- Per Assembly Bill 1726, CDPH is mandated to expand the number of Asian and Pacific Islander (API) groups for which information is collected and reported. Per Assembly Bill 959, CDPH is also mandated to collect and report on voluntarily self-identified sexual orientation and gender identity (SOGI) data. Data on the CA Overdose Surveillance Dashboard and the CA Community Burden of Disease Engine, where all data for this data product were pulled from, did not include data on expanded API groups nor SOGI data; therefore, it is not possible to present data on these expanded groups. In the future, the Substance and Addiction Prevention Branch will aim to report data for additional API groups and SOGI demographics, as it is available, and in accordance with data de-identification guidelines.

Acknowledgements:

This work was supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS) as part of the Overdose Data to Action in States (CDC-RFA-CE-23-0002) cooperative agreement award totaling \$5,094,718.00 with 100% funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, CDC/HHS or the U.S. Government.

Suggested Reference

Feng J, Demeter NE, Tanniru N, Hess C, Pinsker EA. Opioid-Related Overdose Deaths in California, 2023. Sacramento, CA: California Department of Public Health, October 2025.

References

1. Polysubstance Use Facts. Centers for Disease Control and Prevention. Updated April 2, 2024. Accessed May 12, 2025. <https://www.cdc.gov/stop-overdose/caring/polysubstance-use.html>
2. California's Approach to the Overdose Epidemic. California Department of Public Health. Updated December 17, 2024. Accessed May 12, 2025. <https://www.cdph.ca.gov/Programs/CCDPHP/sapb/Pages/CA-Approach.aspx>.

