

Opioid Overdose Deaths After Non-Fatal Opioid Overdose ED Visits in California, 2022 and 2023

**Substance and Addiction Prevention Branch
California Department of Public Health**

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At a Glance

- Providing support and resources (e.g., naloxone, substance use disorder treatment) to individuals who experience emergency department (ED) visits related to non-fatal opioid overdoses can help to prevent future fatal opioid overdoses.
- About 8% of people who died of an opioid overdose in 2022 and 2023 had at least one non-fatal opioid overdose-related ED visit within the 12 months prior to their death.

Among people who experienced both a fatal opioid overdose and non-fatal opioid overdose-related ED visit(s) within one year of each other

- About 80% were male.
- Almost all (over 99%) were 18 years or older. The largest proportion were 25 to 34 years old (36%).
- 50% had their most recent non-fatal opioid overdose-related ED visit within approximately three months of their fatal opioid overdose.
- 65% (2022) and 69% (2023) had substance(s) other than opioids also involved in their fatal overdose.

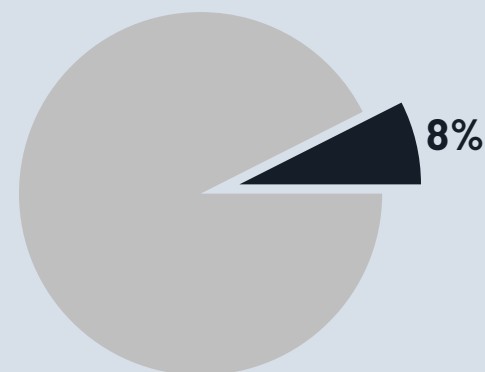
Background

The opioid crisis has led to an increasing number of individuals experiencing non-fatal overdoses. Some of these individuals visit the emergency department (ED), and a subset of these individuals later experience a fatal overdose. Research shows a link between opioid overdose-related ED visits and a higher risk of subsequent fatal overdose.¹ This association highlights a critical opportunity for intervention within the healthcare setting, particularly the ED, where immediate support and resources could reduce the risk of fatal outcomes.² Leveraging ED visits as opportunities for targeted intervention allows healthcare providers to engage at-risk individuals with essential resources, treatment pathways, and support services with the goal of reducing the risk of future overdose deaths.³

Opioid Overdose Deaths in 2022 and 2023 with Non-Fatal Opioid Overdose-Related ED Visits in the Previous 12 Months

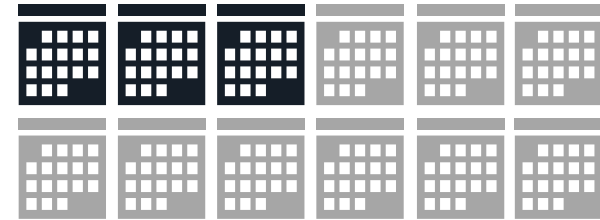
The number of fatal opioid overdoses among California residents in 2022 was 7,203. Among individuals who experienced a fatal opioid overdose in 2022, **560 (8%)** people had at least one non-fatal opioid overdose-related ED visit within the last 12 months.

The number of fatal opioid overdoses among California residents in 2023 was 7,676. Among individuals who experienced a fatal opioid overdose in 2023, **603 (8%)** people had at least one non-fatal opioid overdose-related ED visit within the last 12 months.



Time Between Opioid Overdose Death and the Last Non-Fatal Opioid-related Overdose ED Visit:

50% of people who experienced at least one non-fatal opioid overdose-related ED visit within 12 months of their opioid overdose death had a non-fatal opioid overdose-related ED visit within approximately the **3 months** prior to their death (99 days in 2022 and 91 days in 2023).



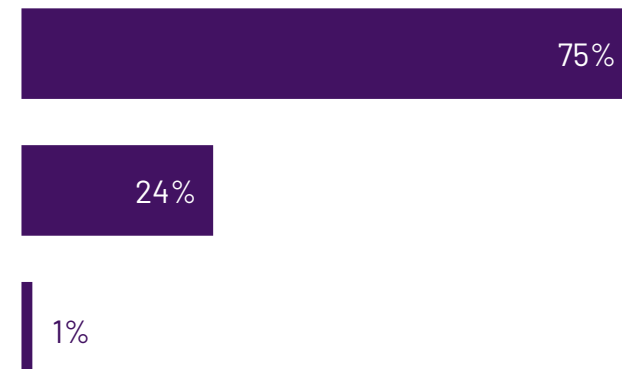
Individuals Who Experienced an Opioid-Related Fatal Overdose Who Had a Non-Fatal Opioid Overdose-Related ED Visit in the Prior 12 Months

By Number of ED Visits:

Opioid Overdose Deaths in 2022



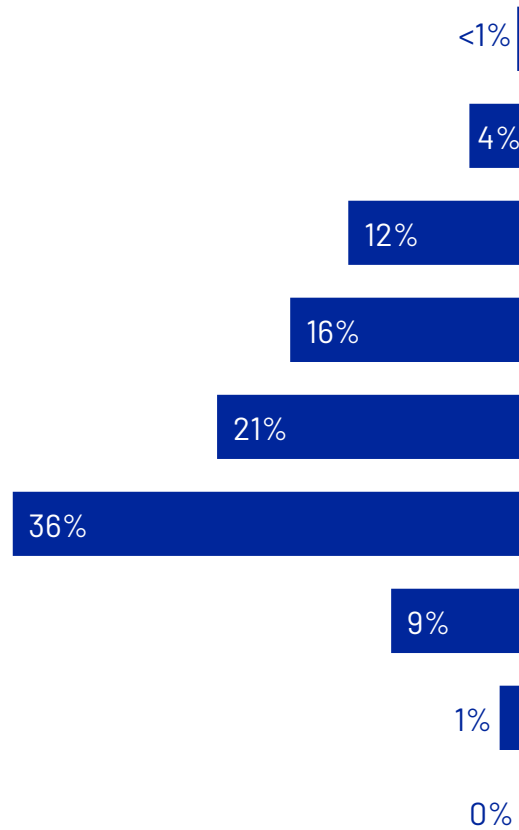
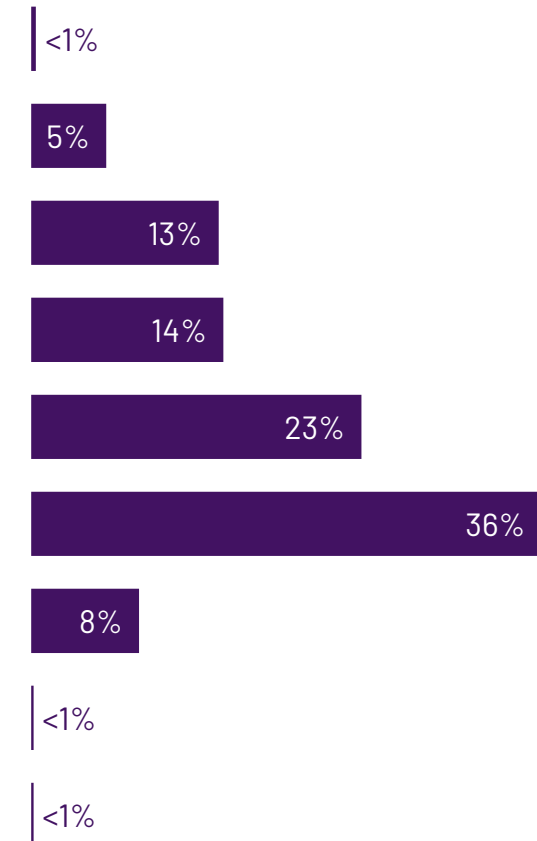
Opioid Overdose Deaths in 2023

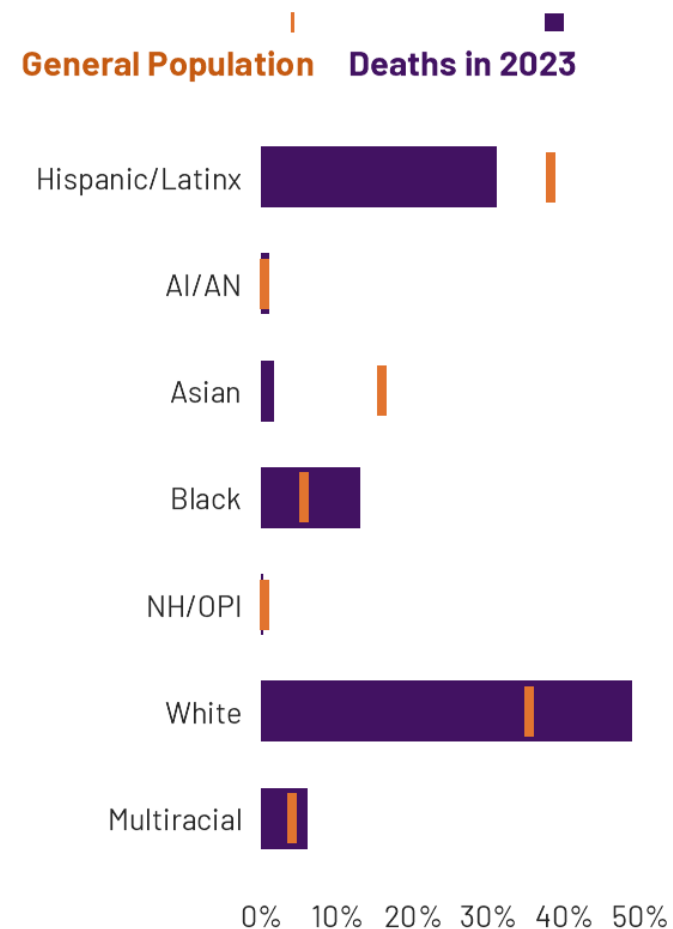
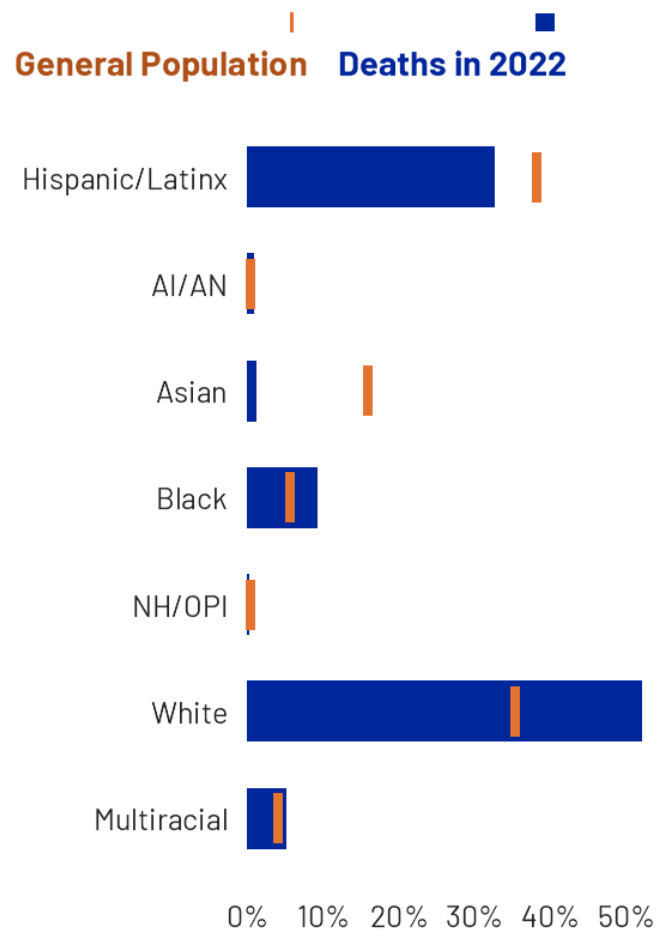


Over 75% of individuals who had a non-fatal opioid overdose-related ED visit in the 12 months prior to their death had one visit. However, over one in five individuals had two or more visits. A small percentage of individuals had between six and thirteen ED visits within the 12 months prior to their deaths, representing several opportunities for intervention.

By Age Group:

Individuals aged 25 to 34 years old accounted for the largest proportion of people who experienced a fatal opioid overdose and had a non-fatal opioid overdose-related ED visit within the 12 months prior to their death.

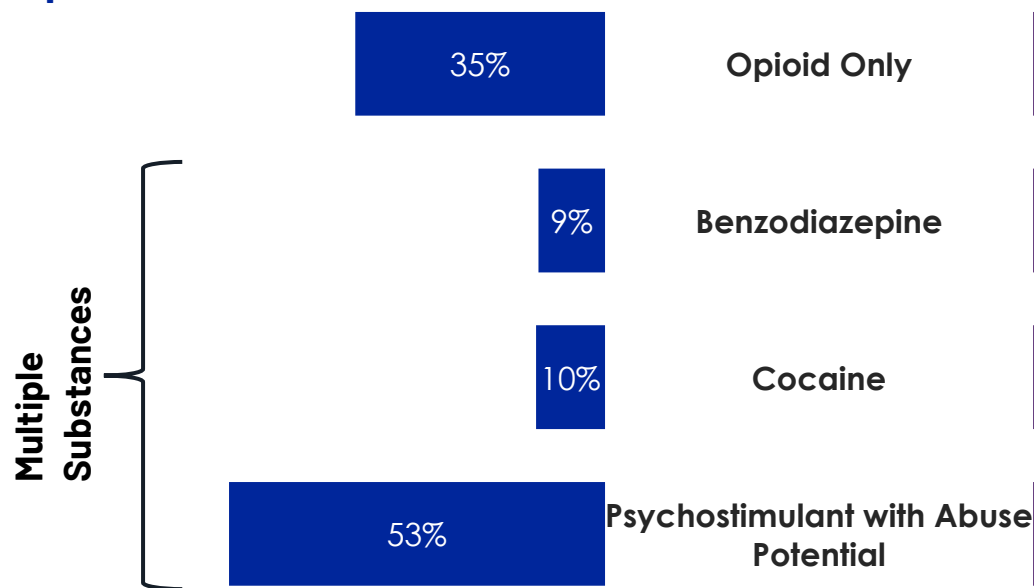
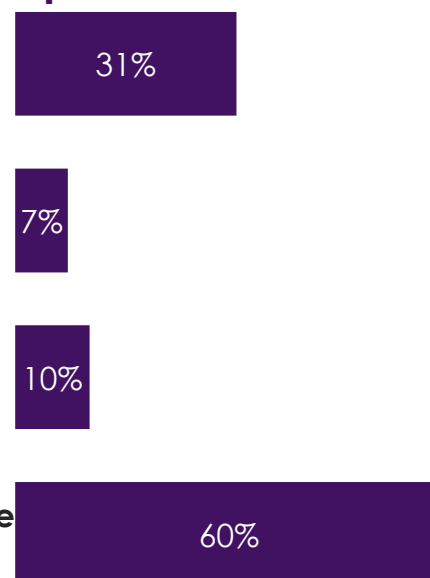
Opioid Overdose Deaths in 2022**Opioid Overdose Deaths in 2023**

By Race/Ethnicity:

AI/AN=American Indian/Alaska Native; NH/OPI=Native Hawaiian/Other Pacific Islander. This figure shows the racial/ethnic breakdown of the general population and of the individuals who experienced a fatal opioid overdose and non-fatal opioid overdose-related ED visit with the 12 months prior to their death. The proportion of people who experienced both a fatal and non-fatal opioid overdose by racial/ethnic group remained about the same from 2022 to 2023 in California. Black and White individuals were overrepresented among individuals who experienced both a fatal and non-fatal opioid overdose, compared to their representation in the general population. Detailed percentages are shown in the Appendix.

By Substances Involved:

- In 2022, **65%** of people who experienced both a fatal opioid overdose and a non-fatal opioid overdose-related ED visit with the 12 months prior to their death died because of an overdose involving an opioid along with one or more other substances, such as benzodiazepine, cocaine, and psychostimulants with abuse potential.
- In 2023, **69%** of people who experienced both a fatal opioid overdose and a non-fatal opioid overdose-related ED visit within the 12 months prior to their death died because of an overdose involving an opioid along with one or more other substances, such as benzodiazepine, cocaine, and psychostimulants with abuse potential.

Opioid Overdose Deaths in 2022**Opioid Overdose Deaths in 2023**

Notes: The multiple substance percentages are not mutually exclusive. Results should not be conclusively interpreted as intentional polysubstance use due to data limitations. A fatal opioid overdose may have resulted from intentional polysubstance use, or the decedent may have unknowingly ingested a substance that was contaminated with another substance.

Prevention Recommendations

Emergency Departments:

- Increase naloxone distribution to patients at risk of drug overdose.⁴
- Follow a medication-assisted treatment (MAT) protocol (e.g., buprenorphine).
- Ensure that a provider that can prescribe MAT is always readily available.
- Establish connections to outpatient clinics that treat substance use disorders (SUD).
- Establish substance use navigators (SUNs) who deliver whole person care-informed interventions for patients with SUD, and increase linkages to and retention in outpatient treatment.⁵
- Provide ongoing training to qualified staff related to best practices for SUD patients.
- Establish a process for continuous quality improvement, including data reporting.

Public Health Professionals:

- Promote distribution of naloxone and other harm reduction tools and services.
- Promote overdose prevention education.
- Facilitate a timely and effective response to fatal and non-fatal overdoses.

Prevention Resources

Emergency Departments:

- [Buprenorphine Emergency Department Quick Start](#)
- [Acute Pain Management in Emergency Department and Critical Care](#)
- [2022 CDC Clinical Practice Guideline at a Glance](#)
- [A Caring Culture in Healthcare](#)

Public Health Professionals:

- [Drug Overdose Response Recommendations and Resources](#)

General Public:

- [People Who Use Drugs](#)
- [Information About Naloxone](#)
- [Information About Fentanyl](#)
- [Information About Opioids](#)
- [Persons Experiencing Chronic Pain](#)



About the Substance and Addiction Prevention Branch

The Substance and Addiction Prevention Branch (SAPB) aims to reduce individual, social, and environmental harms caused by substance-related and addictive disorders through research-driven prevention, education, and treatment in California. SAPB regularly conducts research on trends in substance misuse and related outcomes to spread awareness about the harms of substance misuse in California.

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 strategies:

- Improve CDPH and state agency coordination.
- Improve state and local surveillance.
- Promote protective factors and reduce risk factors to support individual and community resiliency.
- Increase public awareness and education.
- Expand naloxone access, saturation, and education.
- Promote treatment and reduce stigma.
- Promote harm reduction and drug checking services.

References

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Acknowledgements

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Data Sources:

- California Comprehensive Master Death Files (CCMDF), 2022-2023.
- California Department of Health Care Access and Information (HCAI) Emergency Department (ED) Data, 2021-2023.
- California Department of Finance Population Projection Data, 2022-2023.

Technical Notes:

- Only California residents, including residents who died outside of California, were included in this analysis. Residents of states other than California were not included.
- ICD-10 codes for only unintentional and undetermined opioid overdoses were included.
- Note on California Assembly Bill (AB) 959: Per AB 959, CDPH is mandated to collect and report on sexual orientation and gender identity (SOGI) data. Sex is defined based on the sex that was provided on the death certificate. Data available on death certificates may not yet include information on preferred gender identity, and if an individual has transitioned from the gender assigned at birth, this transition is not documented on their death certificate. There is currently no death data available on sexual orientation.
- Note on California Assembly Bill (AB) 1726: Per AB 1726, CDPH is mandated to expand the number of Asian and Pacific Islander (API) groups for which information is collected and reported. Data on deaths that occurred in 2022 and 2023 reported on California death certificates did include data on expanded API groups; however, it was suppressed in this report in accordance with data de-identification guidelines.

Appendix:**Table 1: Racial/Ethnic Distribution of People who had a Fatal Opioid Overdose in 2022 and a Non-Fatal Opioid Overdose-related ED visit within the 12 Months Prior to their Death and the Racial/Ethnic Distribution of the General Population.**

	People who had a Fatal Opioid Overdose in 2022 and a Non-Fatal Opioid Overdose within the 12 Months Prior to their Death	California's Population in 2022
Hispanic/Latinx	31.4%	38.3%
American Indian/Alaska Native	0.9%	0.4%
Asian	1.1%	15.9%
Black	8.9%	5.6%
Native Hawaiian/Other Pacific Islander	0.2%	0.4%
White	51.3%	35.4%
Multiracial	5.0%	4.0%

Table 2: Racial/Ethnic Distribution of People who had a Fatal Opioid Overdose in 2023 and a Non-Fatal Opioid Overdose-related ED visit within the 12 Months Prior to their Death and the Racial/Ethnic Distribution of the General Population.

	People who had a Fatal Opioid Overdose in 2023 and a Non-Fatal Opioid Overdose within the 12 Months Prior to their Death	California's Population in 2023
Hispanic/Latinx	29.9%	37.9%
American Indian/Alaska Native	1.0%	0.4%
Asian	1.7%	16.1%
Black	12.6%	5.7%
Native Hawaiian/Other Pacific Islander	0.2%	0.4%
White	47.1%	35.4%
Multiracial	5.8%	4.1%

Notes: The racial/ethnic distribution of people who had both fatal and non-fatal opioid overdoses will not add up to 100%, as there were observations with missing race/ethnicity information.