



# Overdose Quarterly Report



County of San Diego Health and Human Services Agency, Public Health Services, Epidemiology and Immunization Service Branch

[www.sdepi.org](http://www.sdepi.org)

**July 2023**



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## Overdose Surveillance Report

### Introduction and Sources

This report provides an overview of statistics regarding fatal and non-fatal drug overdoses in San Diego County. Each quarterly report will include a standard set of figures, updated to the most recent calendar year quarter available (Pages 4-10). In addition, a different specific topic will be featured each quarter. The ‘featured topic’ for this report is overdoses by race/ethnicity.

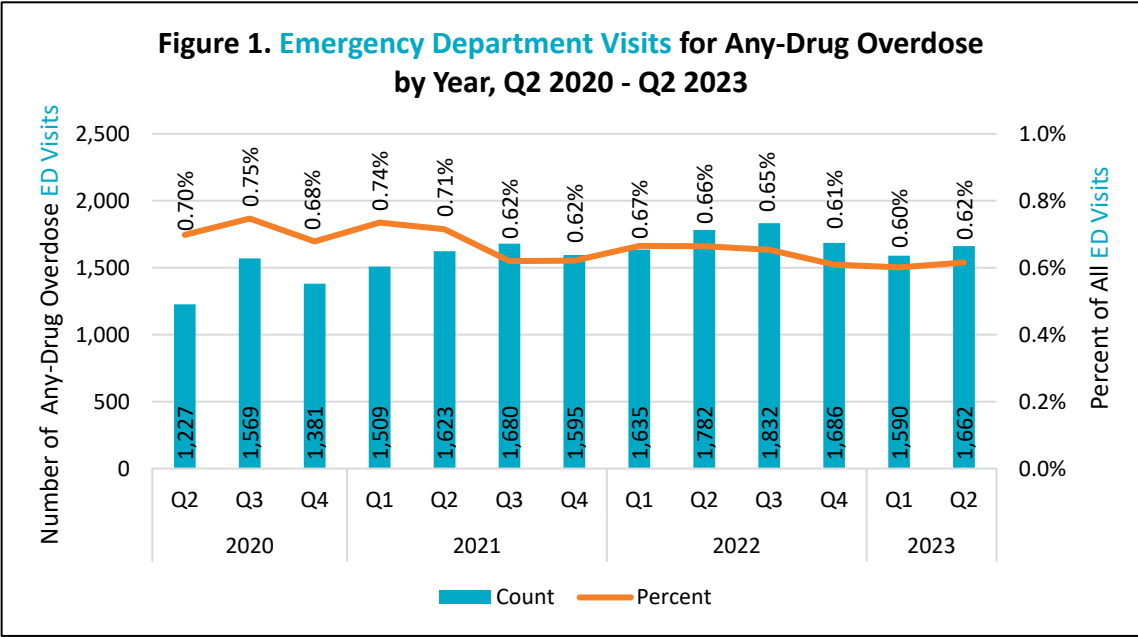
Primary data sources included in this report are:

- County of San Diego (County) Emergency Department (ED) Syndromic Surveillance, which includes chief complaint and some discharge data received daily from 16 of 18 civilian EDs in San Diego County.
  - Unless otherwise noted, the ED data presented in the report are syndromic surveillance data.
  - ICD-10 codes for drug and/or overdose terms are not often available; therefore, word search queries are also used.
  - Syndromic data provide a more timely, though less complete, look at trends than the final ED data from [California Department of Health Care Access and Information](#) (HCAI).
- Mortality data, from the [Vital Records Business Intelligence System](#) (VRBIS), which is managed by the California Department of Public Health.
  - Deaths during the year 2022 are preliminary and subject to change. Data from the most recent quarters are too incomplete to present.
  - Unless otherwise noted, deaths are among San Diego County residents only.

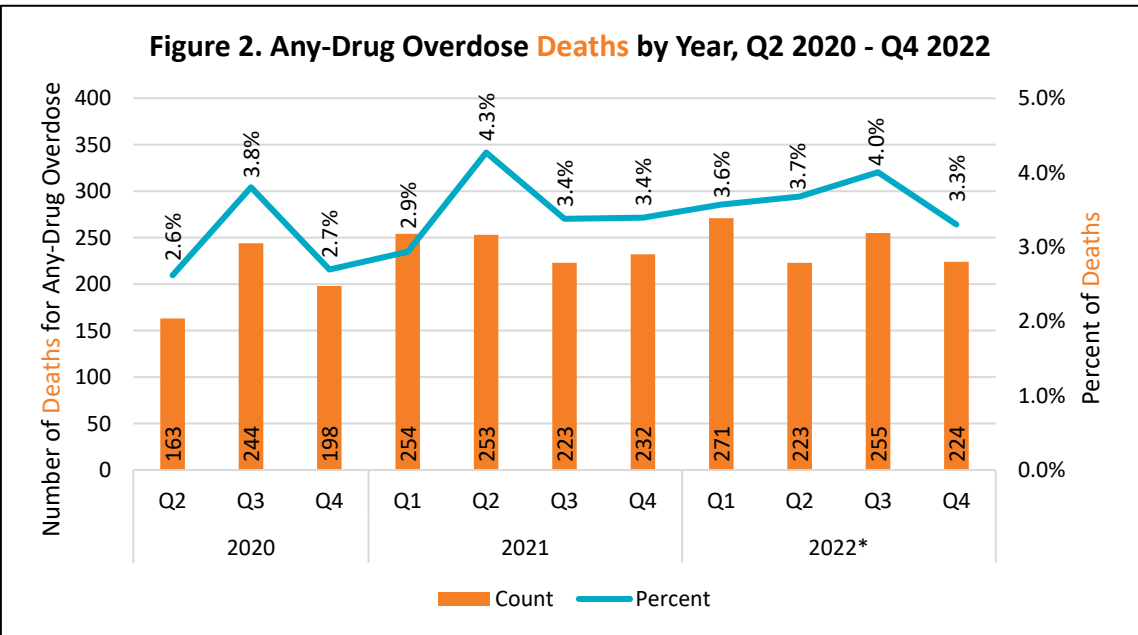
### Overview

- The numbers of any-drug overdose and opioid overdose related ED visits increased by 35% and 89%, respectively from Q2 2020 to Q2 2023.
- Preliminary death data for 2022 show that 70-80% of overdose deaths were opioid overdose deaths.
- Both opioid overdose ED visits and deaths are higher among males and the gender differential has increased since Q2 2020. In Q2 2023, the rate of opioid overdose ED visits was males 3.9 times higher in males compared to females.
- The age-adjusted rates (AAR) for opioid overdose ED visits and deaths are highest among those aged 25-59 years.
- Opioid overdose ED visits were highest among residents in the Health and Human Services Agency (HHS) Central Region (84.2 AAR) in Q2 2023. Opioid overdose deaths were highest among residents in the HHS North Coastal Region (27.3 AAR) in Q2 2022.

## Drug Overdoses by Year and Quarter

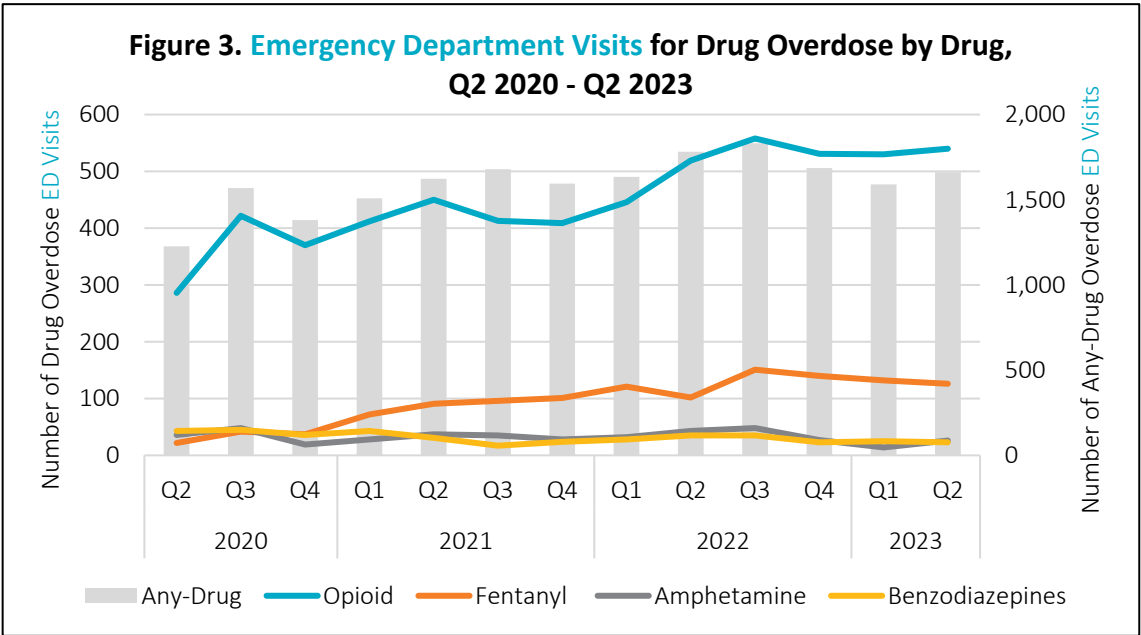


County of San Diego ED Syndromic Surveillance Data.

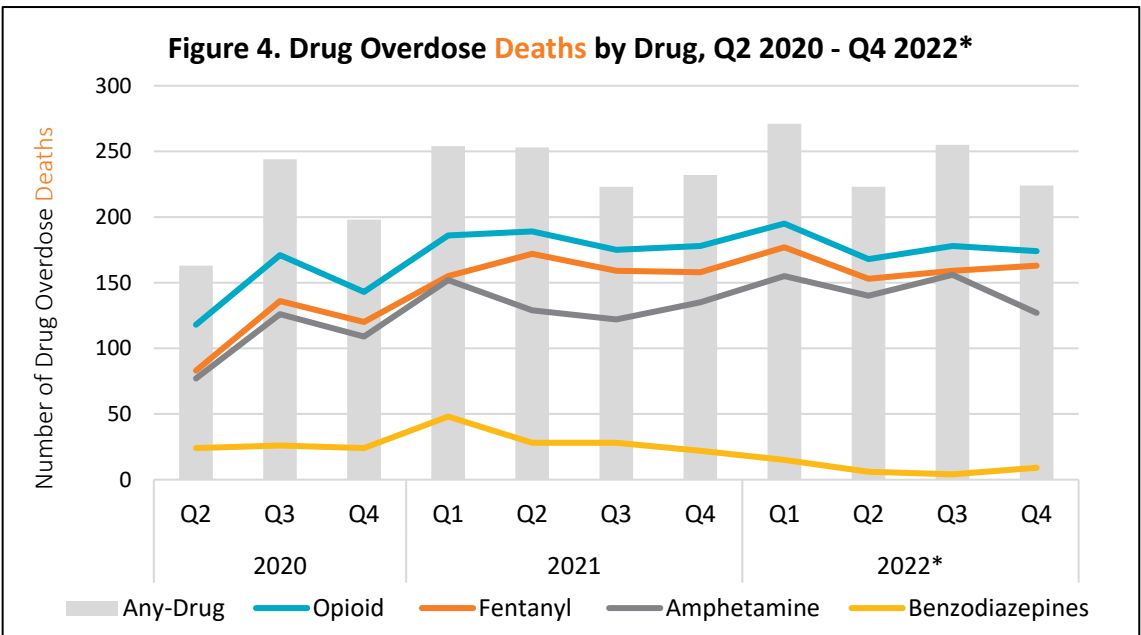


\*Data from 2022 are preliminary and may change as new/updated information is received. Data obtained on 7/25/2023.

## Drug Overdoses by Drug

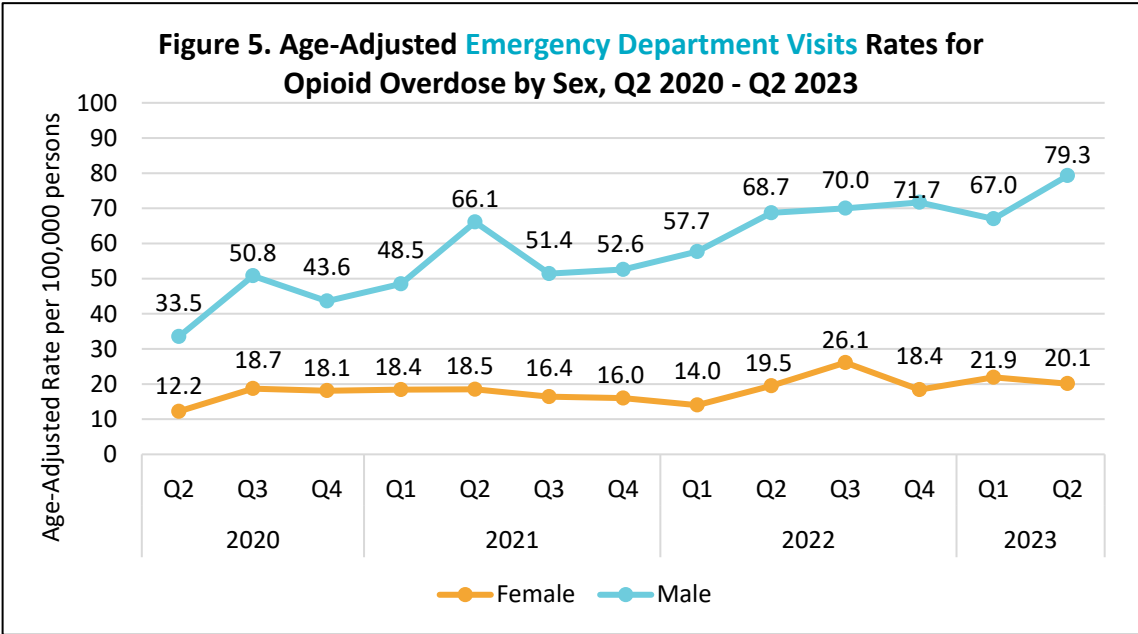


County of San Diego ED Syndromic Surveillance Data. Many chief complaints do not include a specific drug.

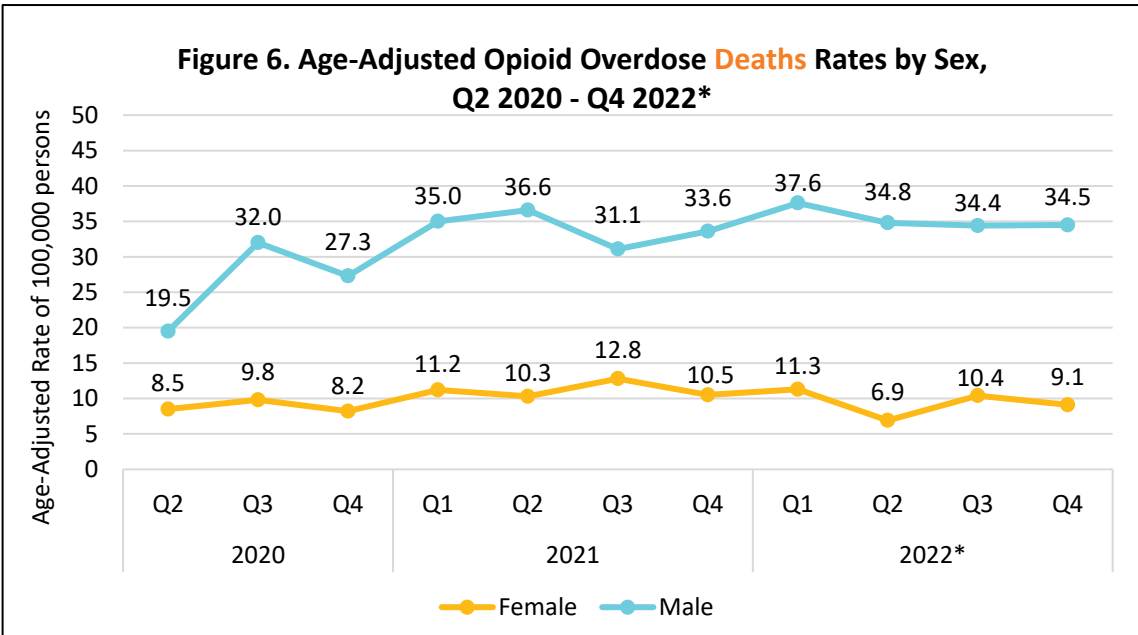


\*Data from 2022 are preliminary and may change as new/updated information is received. Data obtained on 7/25/2023.

## Opium Overdoses by Sex

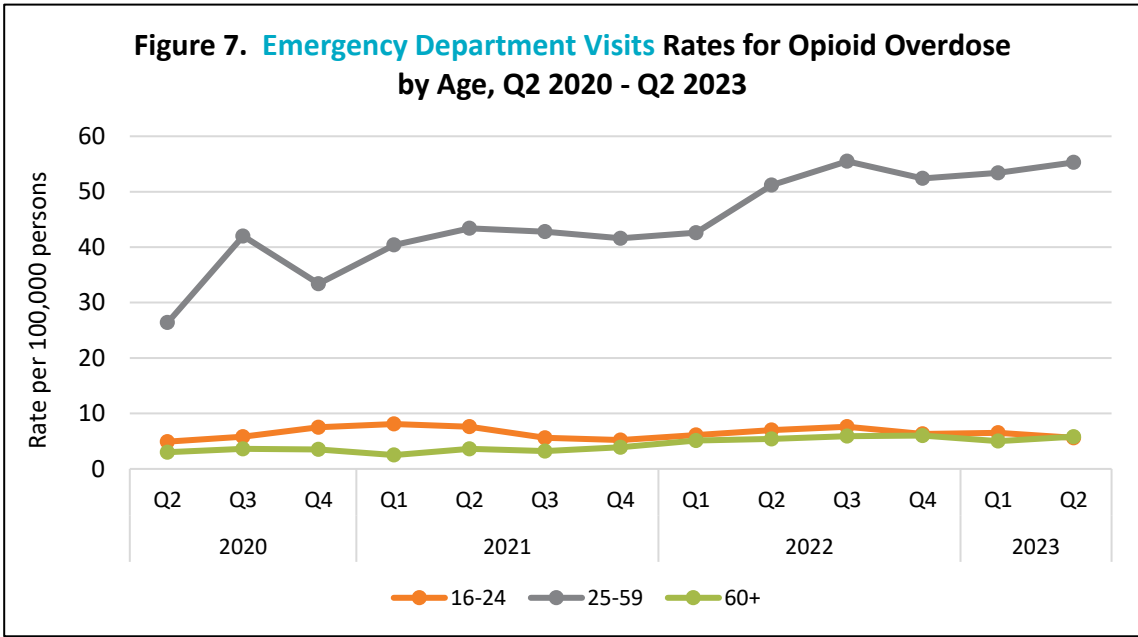


County of San Diego ED Syndromic Surveillance Data.

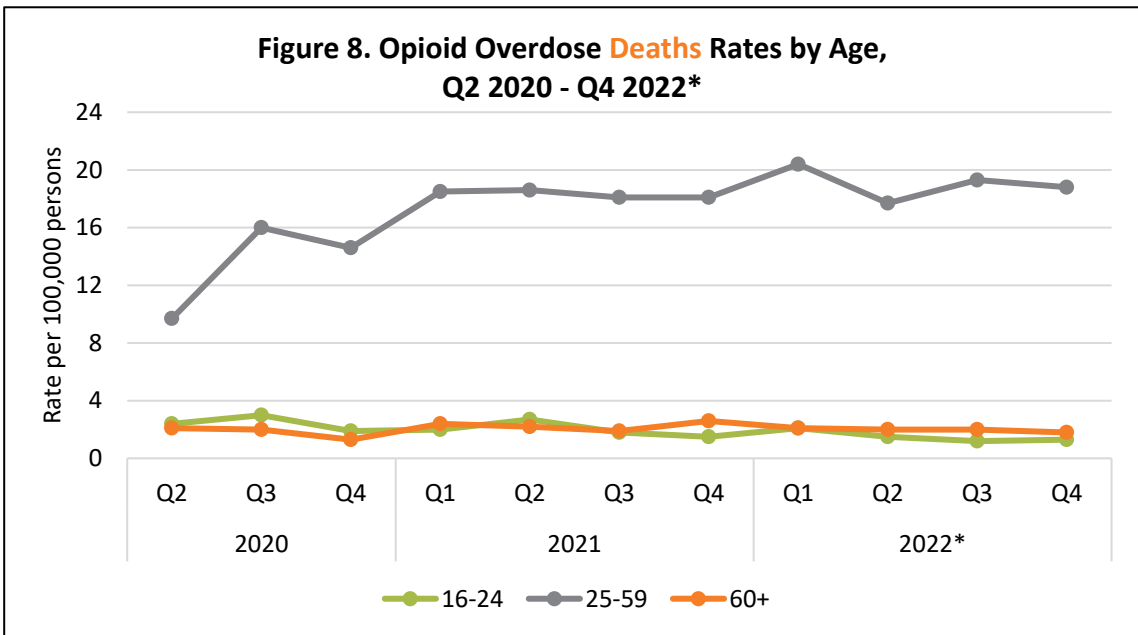


\*Data from 2022 are preliminary and may change as new/updated information is received. Data obtained on 7/25/2023.

## Opioid Overdoses by Age



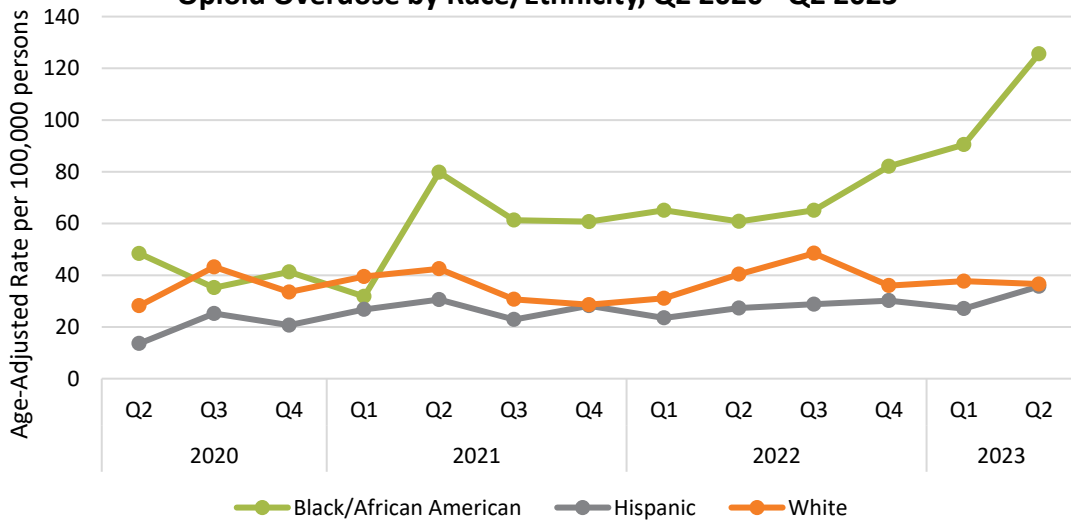
County of San Diego ED Syndromic Surveillance Data.



\*Data from 2022 are preliminary and may change as new/updated information is received. Data obtained on 7/25/2023.

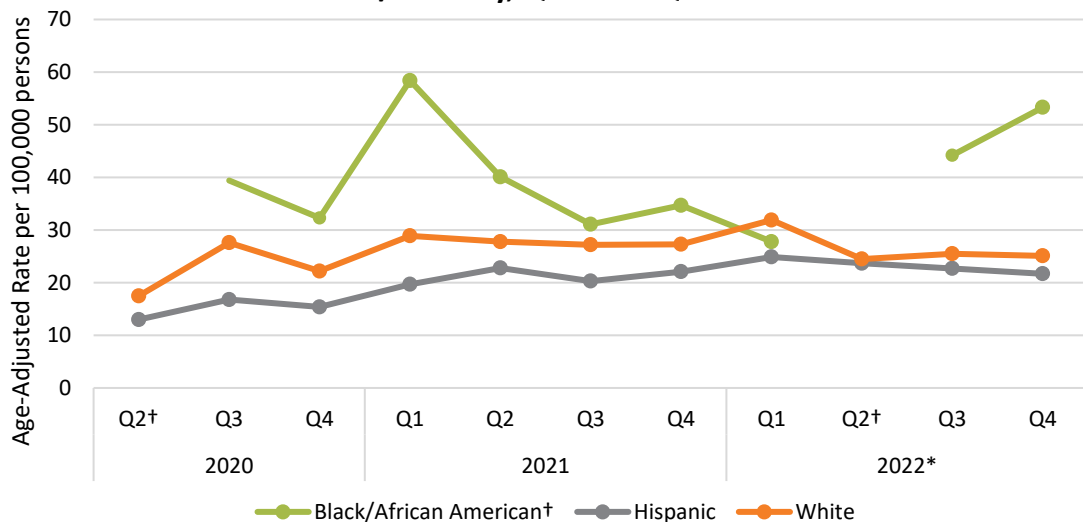
## Opioid Overdoses by Race/Ethnicity

**Figure 9. Age-Adjusted Emergency Department Visits Rates for Opioid Overdose by Race/Ethnicity, Q2 2020 - Q2 2023**



Notes: Data for other racial/ethnicity groups cannot be presented due to small numbers (<11). Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown. County of San Diego ED Syndromic Surveillance Data.

**Figure 10. Age-Adjusted Opioid Overdose Deaths Rates by Race/Ethnicity, Q2 2020 - Q4 2022\***



\*Data from 2022 are preliminary and may change as new/updated information is received. Data obtained on 7/25/2023.

† Data for Black/African American not presented for Q2 2020 and Q2 2022 due to counts <11.

Notes: Data for other racial/ethnicity groups cannot be presented due to small numbers (<11). Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown.



## Opium Overdoses by Region of Residence

Figure 11. Age-Adjusted **Emergency Department Visit** Rates for Opioid Overdose by Region of Residence, Q2 2023

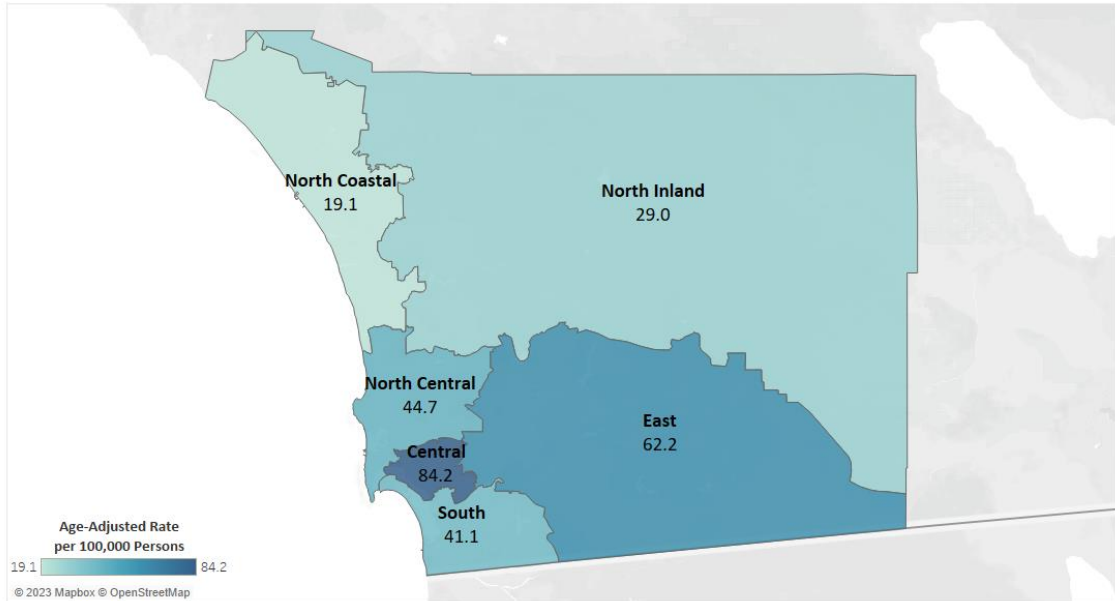
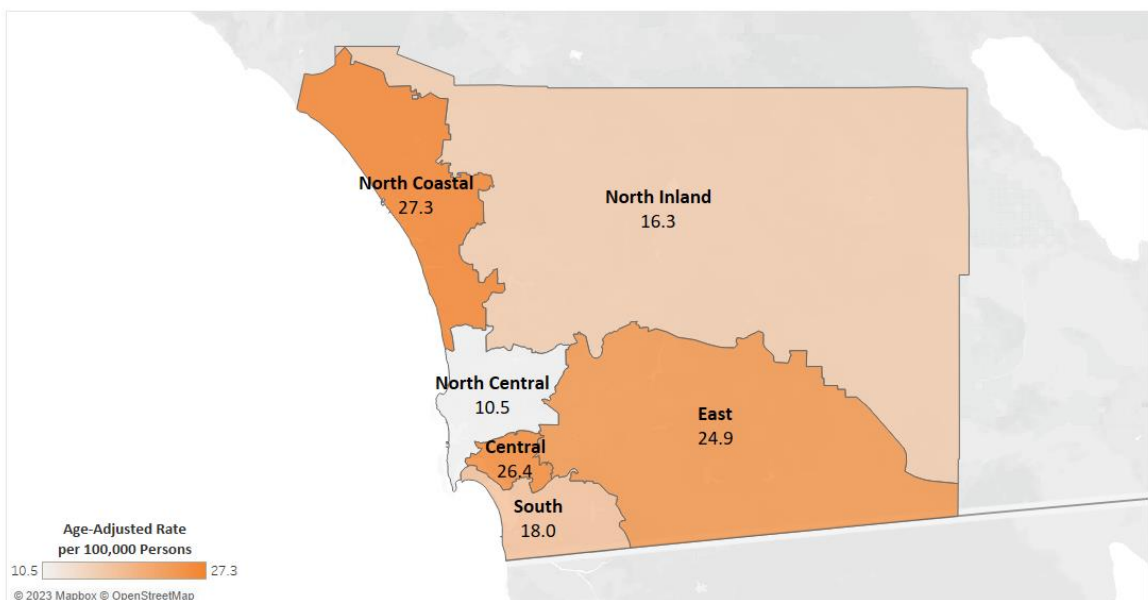


Figure 12. Age-Adjusted Opioid Overdose **Death** Rates by Region of Residence, Q2 2022



## Opioid Overdoses by Demographics

**Table 1. Number of Emergency Department Visits\* for Opioid Overdose, Trends and Change by Quarter**

	2021 Q2	2022 Q2	2023 Q2	Percent Change 2022 to 2023
	N (%)	N (%)	N (%)	%
<b>Total Opioid Overdose Visits</b>	450 (100)	519 (100)	540 (100)	+4
<b>HHS Region of Residence</b>				
North Coastal	31 (9)	20 (10)	25 (7)	+25
North Central	73 (22)	25 (12)	73 (20)	+192
Central	90 (28)	82 (39)	108 (29)	+32
South	39 (12)	24 (12)	49 (13)	+104
East	55 (17)	13 (6)	70 (19)	+438
North Inland	39 (12)	44 (21)	42 (11)	-5
Unknown	123	311	173	
<b>Sex</b>				
Female	77 (22)	77 (21)	80 (20)	+4
Male	273 (78)	287 (79)	327 (80)	+14
Unknown	100	155	133	
<b>Age Group<sup>†</sup></b>				
16-24	68 (16)	63 (12)	50 (9)	-21
25-59	326 (75)	384 (76)	415 (78)	+8
60+	40 (9)	59 (12)	64 (12)	+8
<b>Race/Ethnicity<sup>†</sup></b>				
Black/African American	32 (12)	24 (10)	49 (17)	+104
Hispanic	85 (36)	73 (30)	98 (35)	+34
White	152 (64)	146 (60)	135 (48)	-8
Unknown	132	240	253	

\*County of San Diego ED Syndromic Surveillance Data .

<sup>†</sup> Data for other demographic groups cannot be presented due to small numbers (<11).

Notes: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown.

There was a larger than usual amount of zip code data missing in 2022 data, across hospitals in multiple regions; changes between 2022 and 2023 should be interpreted with caution.

## Feature Topic: Overdoses by Race/Ethnicity

### Overview

- Across all race/ethnicity groups, rates of fatal overdose and rates of overdose ED visits increased from 2016 to 2021.
- The overdose death rates among American Indian/Alaska Native and Black/African American county residents were higher than rates among persons belonging to other race/ethnicity groups.
- Overall, Black/African American county residents had the highest rate of non-fatal, emergency department visits and hospitalizations for any-drug and opioid drug overdoses.
- The rates of opioid overdose ED visits among the Black/African American, Hispanic, and White racial/ethnic groups increased sharply from 2016 to 2021.

### Introduction and Data Sources

Racial and ethnic differences in overdoses in San Diego County are highlighted in this section of the report. Fatal and non-fatal overdose data from 2016 to 2021 are presented in three-year rolling and six-year average age-adjusted rates in order to reduce data suppression among smaller populations. Due to small counts and small population sizes, the data for some race/ethnicity groups should be interpreted with caution. The following data sources are utilized:

- Mortality data from the [Vital Records Business Intelligence System \(VRBIS\)](#), which is managed by the California Department of Public Health.
- Non-fatal ED and non-fatal inpatient hospitalization (HOSP) discharge data from [California Department of Health Care Access and Information \(HCAI\)](#), previously California’s Office of Statewide Health Planning and Development (OSHPD).
  - In 2019, HCAI separated the single Asian/Pacific Islander category into two categories: Asian and Native Hawaiian or Other Pacific Islander. In this report, Asian and Native Hawaiian/Pacific Islander are presented separately, when possible, but collapsed when necessary to display historical data.

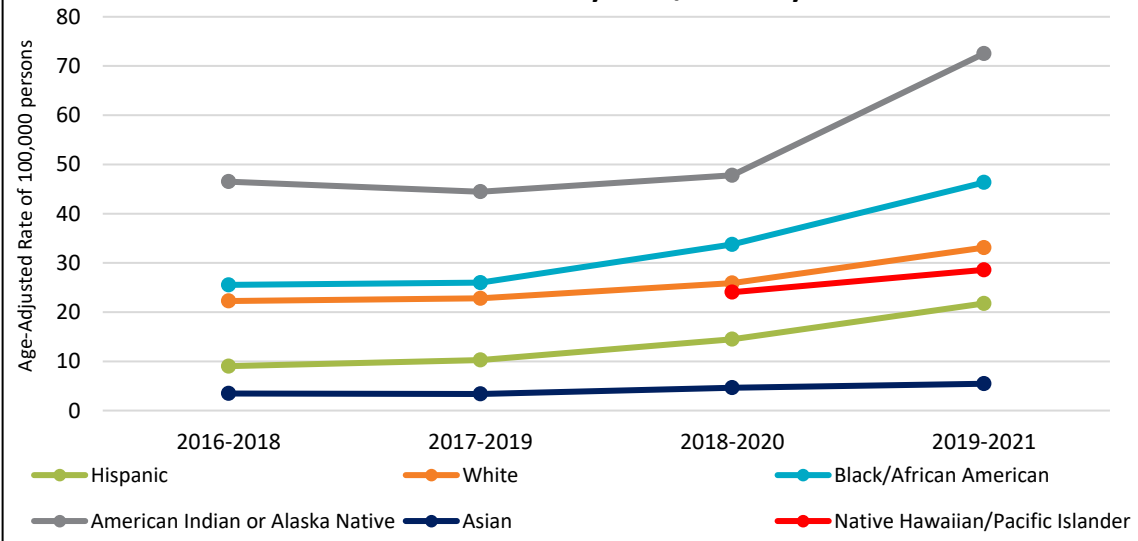
### 2021 SANDAG San Diego County Population Estimates by Race and Ethnicity

Race/Ethnicity	N	%
Hispanic	1,137,461	34.3%
White	1,518,497	45.8%
Black/African America	158,351	4.8%
American Indian or Alaska Native	15,000	0.5%
Asian	350,737	10.6%
Native Hawaiian/Pacific Islander	14,424	0.4%
Other	7,517	0.2%
Two or More Races	113,417	3.4%
Total	3,315,404	

Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown.

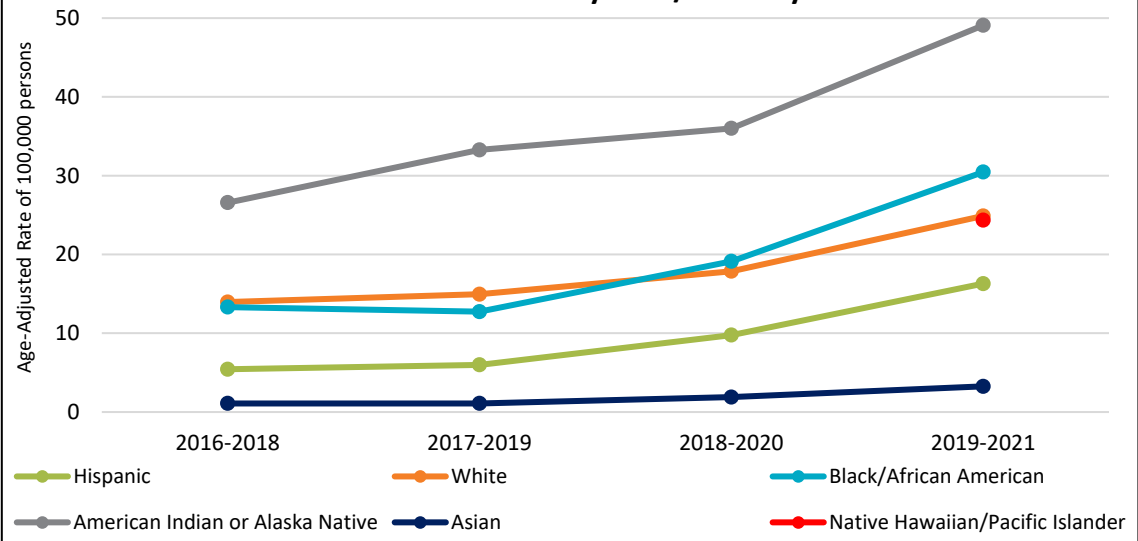
## Overdoses by Race/Ethnicity

**Figure 13. Three-Year Rolling Age-Adjusted Rates of Any-Drug Overdose Deaths by Race/Ethnicity**



Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown. Native Hawaiian/Pacific Islander age-adjusted rates for 2016-2016 and 2017-2019 are excluded due to cumulative counts <11.

**Figure 14. Three-Year Rolling Age-Adjusted Rates of Opioid Overdose Deaths by Race/Ethnicity**



Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown. Native Hawaiian/Pacific Islander age-adjusted rates for 2016-2016, 2017-2019, and 2018-2020 are excluded due to cumulative counts <11.

## Overdoses by Race/Ethnicity

**Table 2. Six-Year Age-Adjusted Rates of Any-Drug Overdose Deaths by Race/Ethnicity and Demographics, 2016-2021**

	Hispanic	White	Black/ African American	American Indian/ Alaska Native	Asian	Native Hawaiian/ Pacific Islander
<b>Total Drug Overdose Deaths, Rate (N)</b>	15.4 (977)	27.7 (2,565)	35.9 (342)	59.5 (53)	4.5 (96)	18.7 (17)
<b>Age Group</b>						
<16	*	*	*	*	*	*
16-24	1.5	2.0	2.4	*	0.7	*
25-59	11.9	22.1	25.4	47.3	3.4	14.3
60+	2.0	3.4	7.8	*	*	*
<b>Sex</b>						
Female	6.6	16.2	23.5	37.0	2.6	*
Male	24.4	38.1	46.8	81.1	6.5	25.4
<b>HHS Region of Residence</b>						
North Coastal	13.1	22.4	16.2	*	*	*
North Central	10.6	18.7	22.1	*	2.8	*
Central	16.9	35.0	47.7	*	9.5	*
South	11.4	28.0	19.0	*	4.3	*
East	18.0	27.4	22.1	87.4	*	*
North Inland	10.7	19.7	27.5	104.1	*	*

\*Data not shown when counts are greater than zero, but less than 11.

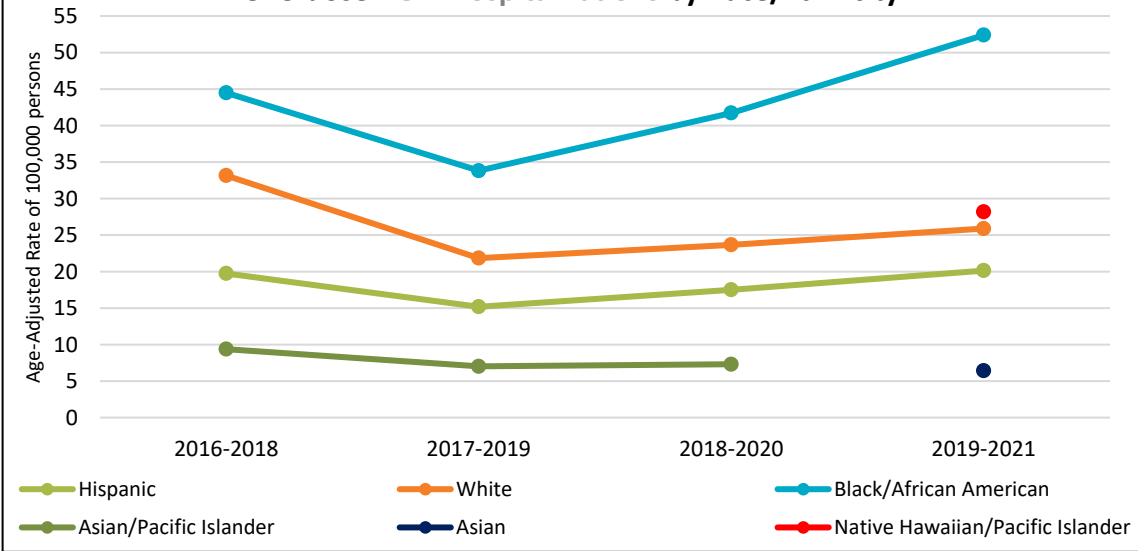
Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons whose race is known but ethnicity is non-Hispanic or unknown.

### Key Mortality Findings:

- Across all race/ethnicity groups, rates of both any-drug and opioid overdose deaths steadily increased from 2016 to 2021 (see figures 13 and 14).
- Fatal any-drug and opioid overdose death rates are highest among American Indian/Alaska Native and Black/African American race groups (see figures 13 and 14).
- Across all race/ethnicity groups, any-drug overdose death rates are higher among males and persons ages 25-59 (see table 2).

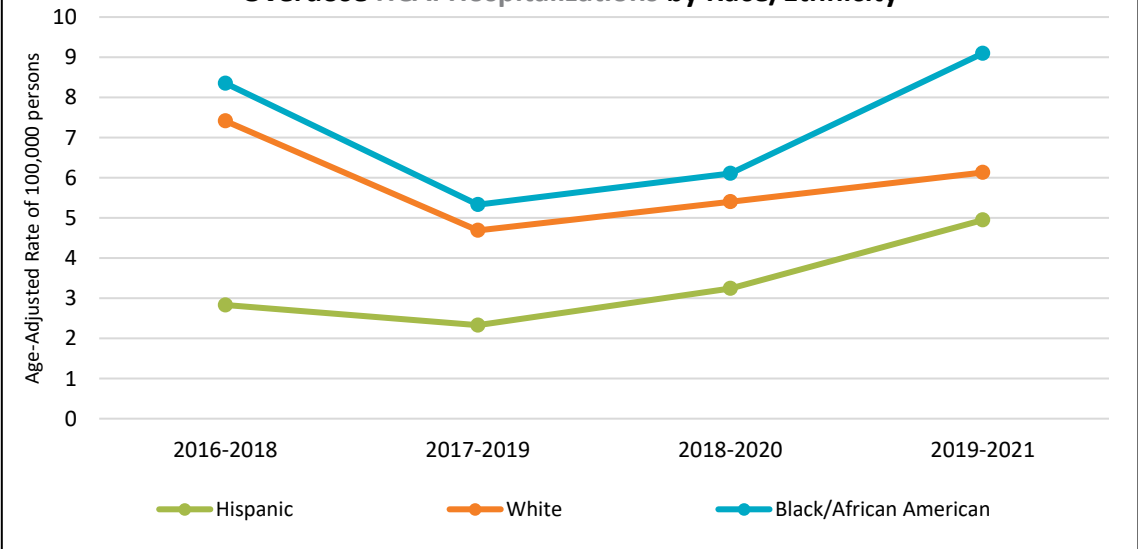
## Overdoses by Race/Ethnicity

**Figure 15. Three-Year Rolling Age-Adjusted Rates of Any-Drug Overdose HCAI Hospitalizations by Race/Ethnicity**



Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown. American Indian/Alaska Native age-adjusted rates excluded due to cumulative counts <11 across all rolling periods.

**Figure 16. Three-Year Rolling Age-Adjusted Rates of Opioid Overdose HCAI Hospitalizations by Race/Ethnicity**



Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown. American Indian/Alaska Native (all periods), Asian/Pacific Islander (all periods), Asian (2019-2021), and Native Hawaiian/Pacific Islander (2019-2021) age-adjusted rates excluded due to cumulative counts <11.

## Overdoses by Race/Ethnicity

**Table 3. Six-Year Age-Adjusted Rates of Any-Drug Overdose HCAI Hospitalizations by Race/Ethnicity and Demographics, 2016-2021**

	Hispanic	White	Black/ African American	American Indian/ Alaska Native	Asian/ Pacific Islander
<b>Total Drug Overdose Hospitalizations, Rate (N)</b>	19.9 (1,328)	29.5 (2,849)	48.4 (457)	32.4 (14)	2.1 (186)
<b>Age Group</b>					
<16	3.5	3.1	4.0	*	1.3
16-24	3.1	3.7	4.3	*	2.1
25-59	9.2	16.9	30.9	*	3.3
60+	4.1	5.8	9.2	*	1.6
<b>Sex</b>					
Female	18.7	30.9	51.9	*	9.7
Male	21.5	28.8	45.0	33.2	9.1
<b>HHS Region of Residence</b>					
North Coastal	10.7	20.9	17.3	0.0	11.8
North Central	9.0	16.2	21.7	0.0	5.2
Central	16.8	26.9	42.6	0.0	10.2
South	19.4	29.0	21.0	*	8.7
East	33.6	50.4	68.5	*	19.0
North Inland	7.8	10.7	*	*	*

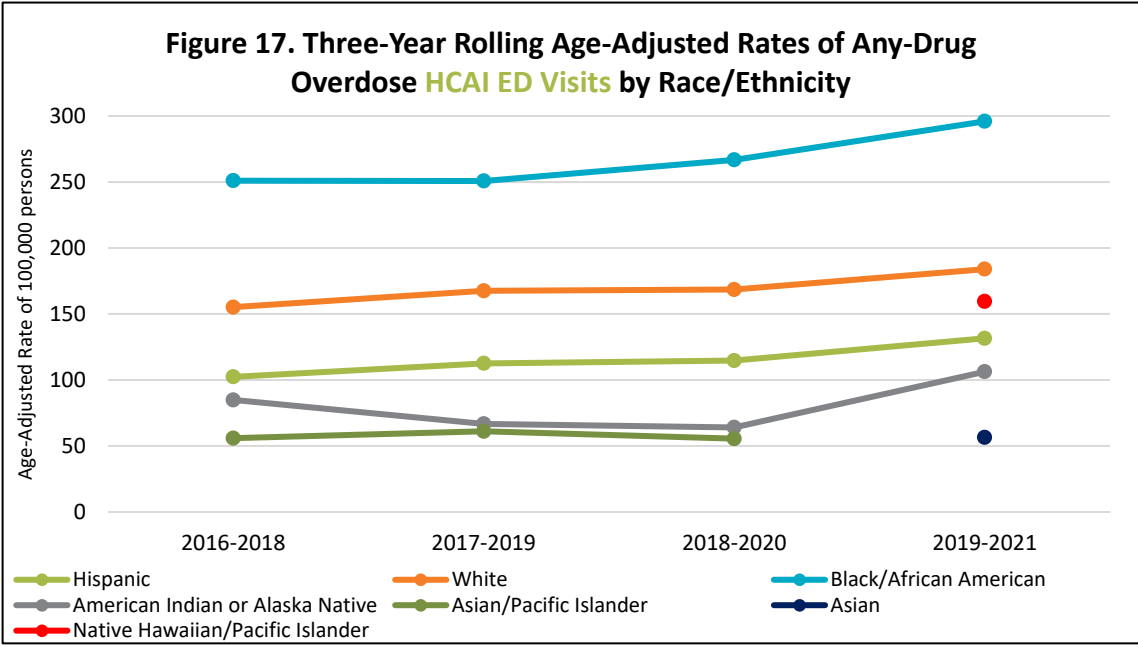
\*Data not shown when counts are greater than zero, but less than 11.

Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown.

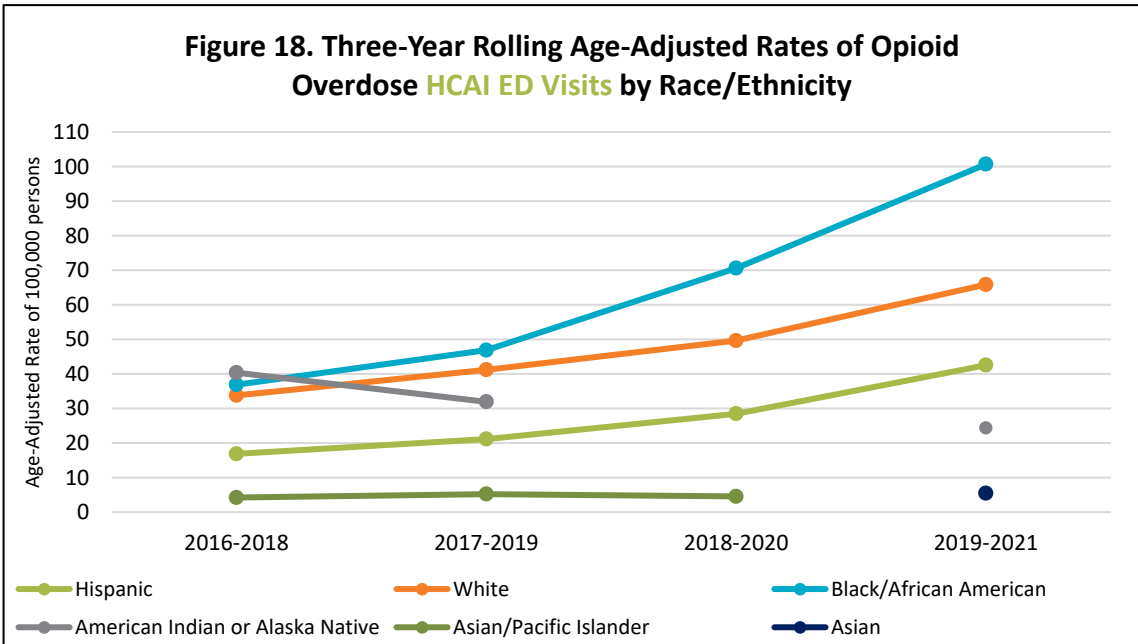
### Key Hospitalization Findings:

- Across most race/ethnicity groups, non-fatal any-drug and opioid overdose hospitalizations steadily increased from 2017 to 2021 (see figures 15 and 16).
- Any-drug and opioid overdose hospitalization rates are highest among Blacks/African Americans, with the largest increase in the most recent timepoint (2019-2021) (see figures 15 and 16).
- Blacks/African Americans have the highest rates of any-drug overdose hospitalizations across all age and sex groups. The rate of any-drug hospitalization is highest among Black/African American residents of the HHSA East Region (see table 3).

## Overdoses by Race/Ethnicity



Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown.



Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown.  
 American Indian/Alaska Native age-adjusted rates for 2018-2020 are excluded due to cumulative counts <11.  
 Native Hawaiian/Pacific Islander age-adjusted rates for 2019-2021 are excluded due to cumulative counts <11.



## Overdoses by Race/Ethnicity

**Table 4. Six-Year Age-Adjusted Rates of Any-Drug Overdose HCAI ED Visits by Race/Ethnicity and Demographics, 2016-2021**

	Hispanic	White	Black/ African American	American Indian/ Alaska Native	Asian/ Pacific Islander
<b>Total Drug Overdose Visits, Rate (N)</b>	117.0 (8,109)	169.6 (15,009)	273.5 (2,630)	95.6 (85)	58.3 (1,246)
<b>Age Group</b>					
<16	21.7	24.6	29.1	18.0	13.4
16-24	21.3	30.9	43.6	13.5	16.9
25-59	61.5	96.7	162.5	58.9	21.4
60+	12.5	17.4	38.2	*	6.6
<b>Sex</b>					
Female	106.7	171.0	251.8	108.5	71.1
Male	128.3	169.1	292.8	83.9	46.3
<b>HHS Region of Residence</b>					
North Coastal	67.3	124.7	119.6	*	50.9
North Central	77.7	123.7	178.6	*	49.4
Central	132.3	184.6	282.9	105.4	56.5
South	126.7	157.2	165.5	*	65.4
East	128.0	162.8	210.0	208.4	62.0
North Inland	37.4	98.6	108.4	61.2	40.6

\*Data not shown when counts are greater than zero, but less than 11.

Note: Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons who race is know but ethnicity is non-Hispanic or unknown.

### Key ED Visits Findings:

- Across most race/ethnicity groups, non-fatal any-drug and opioid overdose emergency department visits increased from 2016 to 2021 (see figures 17 and 18).
- The rates of opioid overdose ED visits among the Black/African American, Hispanic, and White race/ethnicity groups increased sharply from 2016 to 2021 (see figure 18).
- Across all race/ethnicity groups, any-drug overdose deaths rates are higher among persons ages 25-59 and residents of the Health and Human Services Agency (HHS) Central and East Regions (see table 4).

## Definitions

Quarters are based upon calendar year and are defined as followed:

- Quarter 1 (Q1): January 1 – March 31
- Quarter 2 (Q2): April 1 – June 30
- Quarter 3 (Q3): July 1 – September 30
- Quarter 4 (Q4): October 1 – December 31

### Case definitions for syndromic surveillance data:

- *Any-Drug Overdose*: Encounters with ICD-10 diagnosis codes for poisoning by drugs (T36-T50). If the diagnosis field is blank, then any-drug overdoses are identified using a text search algorithm for words related to overdose, any-drug type, or naloxone.
- *Opioid Overdoses*: Encounters with ICD-10 diagnosis codes for poisoning by opioids (T40.0X, T40.1X, T40.2X, T40.3X, T40.4, T40.60, T40.69). If the diagnosis is blank, then opioid overdoses are identified using a text search algorithm for words related to general opioids, overdose, heroin, fentanyl, and naloxone.
- *Fentanyl Overdoses*: Encounters with ICD-10 diagnosis code for poisoning by fentanyl (T40.41). If the diagnosis is blank, then fentanyl overdoses are identified using a text search algorithm for words related to fentanyl and overdose.
- *Amphetamine Overdoses*: Encounters with ICD-10 diagnosis code for poisoning by amphetamines (T43.62). If the diagnosis is blank, then amphetamine overdoses are identified using a text search algorithm for words related to amphetamine and overdose.
- *Benzodiazepine Overdoses*: Encounters with ICD-10 diagnosis code for poisoning by benzodiazepine (T42.4X). If the diagnosis is blank, then benzodiazepine overdoses are identified using a text search algorithm for words related to benzodiazepine and overdose.

### Case definitions for mortality data (per [CDPH Overdose Surveillance Dashboard](#)):

- *Any-Drug Overdose*: All overdose deaths, regardless of intent (e.g., unintentional, suicide, assault, or undetermined). This indicator does not include: (1) deaths related to chronic use of drugs (e.g., damage to organs from long-term drug use), 2) deaths due to alcohol and tobacco, and 3) deaths that occur under the influence of drugs, but do not involve acute poisoning. Deaths with any of the following ICD-10 codes as the underlying cause of death: X40-X44: Accidental poisonings by drugs; X60-X64: Intentional self-poisoning by drugs; X85: Assault by drug poisoning; Y10-Y14: Drug poisoning of undetermined intent.
- *Opioid Overdose*: Any opioid as a contributing cause of death, regardless of intent. Opioids include both prescription opioid pain relievers such as hydrocodone, oxycodone, and morphine, as well as heroin and opium. Deaths related to chronic use of drugs are excluded from this indicator. ICD-10 codes include: T40.0: Opium; T40.1: Heroin; T40.2: Natural and semisynthetic opioids; T40.3: Methadone; T40.4: Synthetic opioids, other than methadone; T40.6: Other and unspecified narcotics.
- *Fentanyl Overdoses*: Drug overdose deaths caused by acute poisonings that involve fentanyl or fentanyl analogs as a contributing cause of death, regardless of intent. Deaths related to chronic use of drugs are excluded from this indicator. Overdose deaths involving fentanyl and associated analogs were identified by using a text search algorithm.

## Definitions (continued)

- **Amphetamine Overdoses:** Drug overdose deaths caused by acute poisonings that involve psychostimulants with abuse potential excluding cocaine (T40.5), regardless of intent. Psychostimulants with abuse potential include methamphetamine, MDMA, dextroamphetamine, and levoamphetamine. Deaths related to chronic use of drugs are excluded from this indicator. Overdose deaths involving amphetamine and associated analogs were identified by using a text search algorithm.
- **Benzodiazepine Overdoses:** Drug overdose deaths caused by acute poisonings that involve benzodiazepines as a contributing cause of death, regardless of intent. Benzodiazepines include anti-anxiety medications such as alprazolam (Xanax) and lorazepam (Ativan). Deaths related to chronic use of drugs are excluded from this indicator. Overdose deaths involving benzodiazepine and associated analogs were identified by using a text search algorithm.

## Case definitions for HCAI ED visits and HCAI Hospitalizations (per [CDPH Overdose Surveillance Dashboard](#)):

- **Any-Drug Overdose:** ED visits or inpatient hospitalizations caused by non-fatal acute poisonings due to the effects of drugs, regardless of intent. ED visits or inpatient hospitalizations related to late effects, adverse effects, and chronic poisonings due to the effects of drugs (e.g., damage to organs from long-term drug use) are excluded from this indicator. ICD-10 codes include: T36-T50.
- **Opioid Overdose:** ED visits or inpatient hospitalizations caused by non-fatal acute poisonings due to the effects of any opioid drugs, regardless of intent. ED visits or inpatient hospitalizations related to late effects, adverse effects, and chronic poisonings due to the effects of drugs are excluded from this indicator. Beginning in the 4<sup>th</sup> quarter of 2020, the generic ICD10-CM code for other synthetic narcotics (T40.4X) was replaced by three more specific codes (T40.41, T40.42, T40.49). ICD-10 codes include: T40.0X, T40.1X, T40.2X, T40.3X, T40.41, T40.42, T40.49, T40.60, T40.69.

## Limitations

- Overdoses that result in ED visits, hospitalizations, or deaths represent only a portion of the overall burden of drug overdoses.
- The accuracy of indicators based on ICD-10-CM codes found in syndromic surveillance ED visit data is limited by the completeness and quality of reporting and coding.
- Syndromic surveillance chief complaint is recorded as a free text field and captures the patient's primary reason for seeking medical care in near real-time; this may lack content that could assist public health with interpretation of the reason for visit.