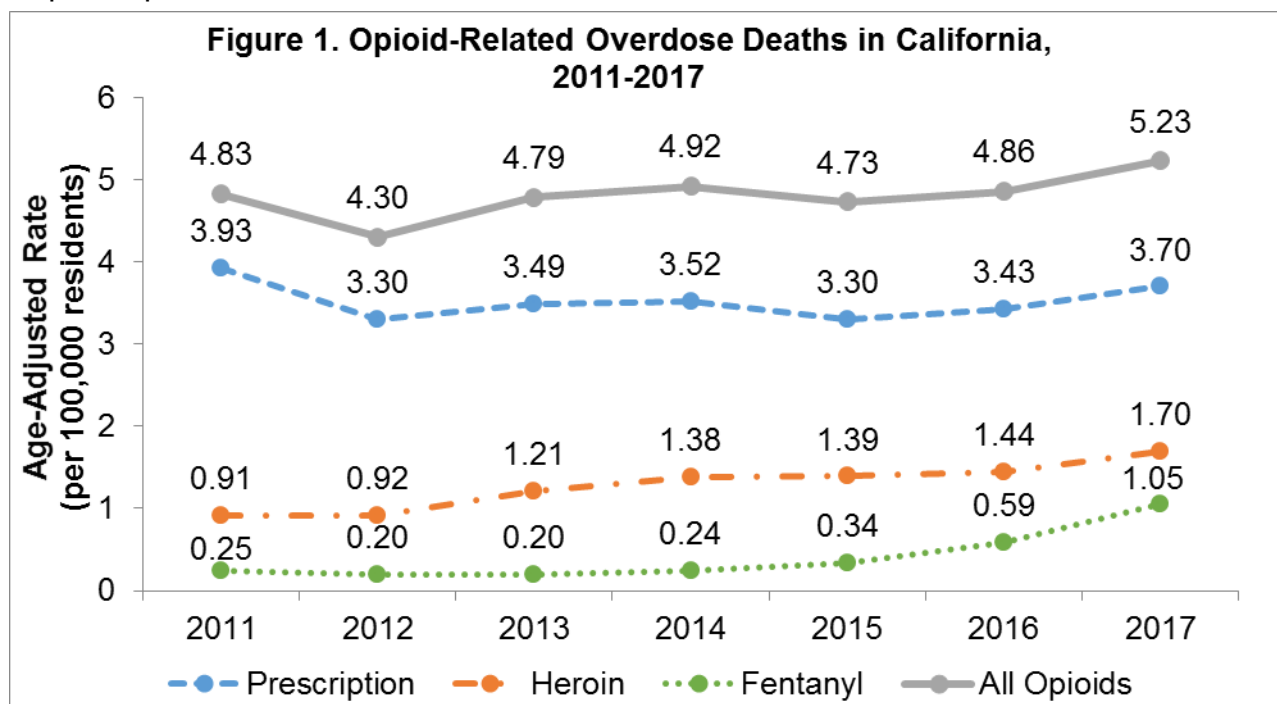


# Patterns of Opioid-Related Overdose Deaths in California, 2011-2017

California continues to face a serious public health crisis with the dynamic and rapidly changing opioid epidemic having substantial health and economic impacts. This brief describes opioid-related overdose deaths over time, and demographic differences among different types of opioid overdoses.

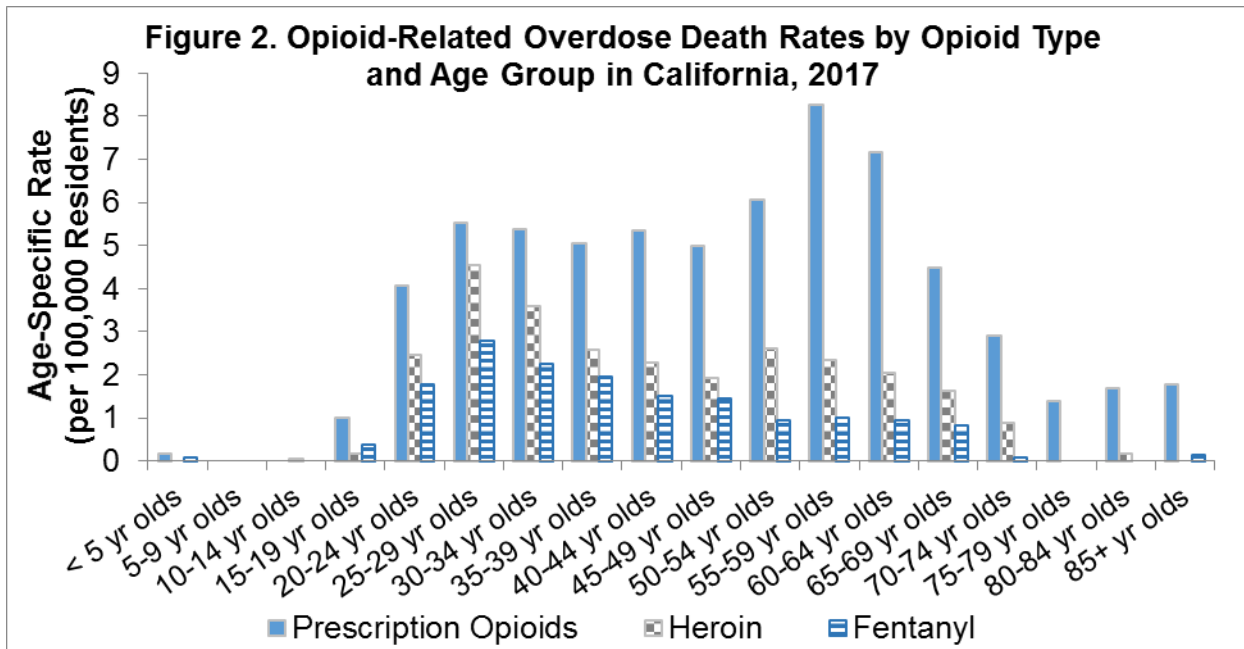
In 2017 there were 2,196 opioid-related overdose deaths (5.23 per 100,000). The majority (70%) of these overdose deaths involved prescription opioids. Overall trends from 2011 to 2017 show opioid-related overdose deaths have increased (Figure 1).

- ⇒ Heroin-related overdose death rates have increased by 89%, from 0.91 per 100,000 in 2011 to 1.70 per 100,000 in 2017, but are still lower than prescription deaths.
- ⇒ Similarly, fentanyl-related overdose death rates have increased by 320%, from 0.25 per 100,000 in 2011 to 1.05 per 100,000 in 2017, but are still much lower than prescription deaths.



As displayed in Figure 2 (See Page 2) the substances involved in opioid-related overdose deaths differ between older age groups (>50 years) and younger age groups (<30 years). (Note: Overdose deaths may involve more than one opioid.)

- ⇒ Older age groups have higher rates of prescription opioid overdose deaths than younger age groups, the highest rates are among 55 to 59 year olds (8.27 per 100,000).
- ⇒ Younger age groups have higher rates of heroin and fentanyl overdose deaths than older age groups, the highest rates are among 25 to 29 year olds (heroin: 4.54 per 100,000; fentanyl: 2.78 per 100,000).



There are differences by sex and race/ethnicity when opioid-related overdose deaths are stratified by the opioid drug involved (Table 1).

- ⇒ Male opioid-related overdose death rates are significantly\* higher than females.
- ⇒ Prescription opioid and heroin related overdose death rates are significantly\* higher among Native Americans and Non-Hispanic Whites compared to other races/ethnicities. Native Americans also have significantly\* higher fentanyl-related overdose death rates than other groups.
- ⇒ Fentanyl overdose deaths are significantly\* lower among Hispanic/Latinos and Non-Hispanic Asians compared to other races/ethnicities.

**Table 1. Demographic Characteristics of Opioid Overdose by Drug Involved in California, 2017 (Crude rate per 100,000 residents (95% CI)\*\*)**

Demographic Characteristic	Prescription Opioids n=1,556	Heroin n=711	Fentanyl n=429
<b>Sex</b>			
Males	5.22 (4.90, 5.55)	2.96 (2.72, 3.21)	1.75 (1.57, 1.95)
Females	2.67 (2.45, 2.91)	0.65 (0.55, 0.78)	0.42 (0.34, 0.52)
<b>Race/Ethnicity</b>			
White*	6.90 (6.49, 7.33)	2.96 (2.69, 3.25)	1.67 (1.47, 1.89)
Black*	4.46 (3.67, 5.38)	1.93 (1.42, 2.56)	1.43 (1.00, 1.99)
Hispanic/Latino	2.10 (1.89, 2.35)	1.17 (1.01, 1.35)	0.75 (0.62, 0.90)
Native American*	11.52 (7.46, 17.07)	5.76 (3.00, 10.04)	4.80 (2.34, 8.79)
Asian*	0.74 (0.55, 0.99)	0.32 (0.20, 0.50)	0.23 (0.13, 0.38)

\* Statistically significant differences between rates are assessed by comparing 95% CIs and determining they do not overlap.

\* Non-Hispanic/Latino

\*\* 95% Confidence Intervals (CIs) = intervals in which there is a 95% probability of including the true value of the estimate.

Prepared by the Prescription Drug Overdose Prevention Initiative, Safe and Active Communities Branch, California Department of Public Health.

Source Files: Multiple Cause of Death Files (2011-2015)  
 California Comprehensive Death Files (2016-2017)  
 Data retrieved from the California Opioid Overdose Surveillance Dashboard.  
<https://discovery.cdph.ca.gov/CDIC/ODdash/>

