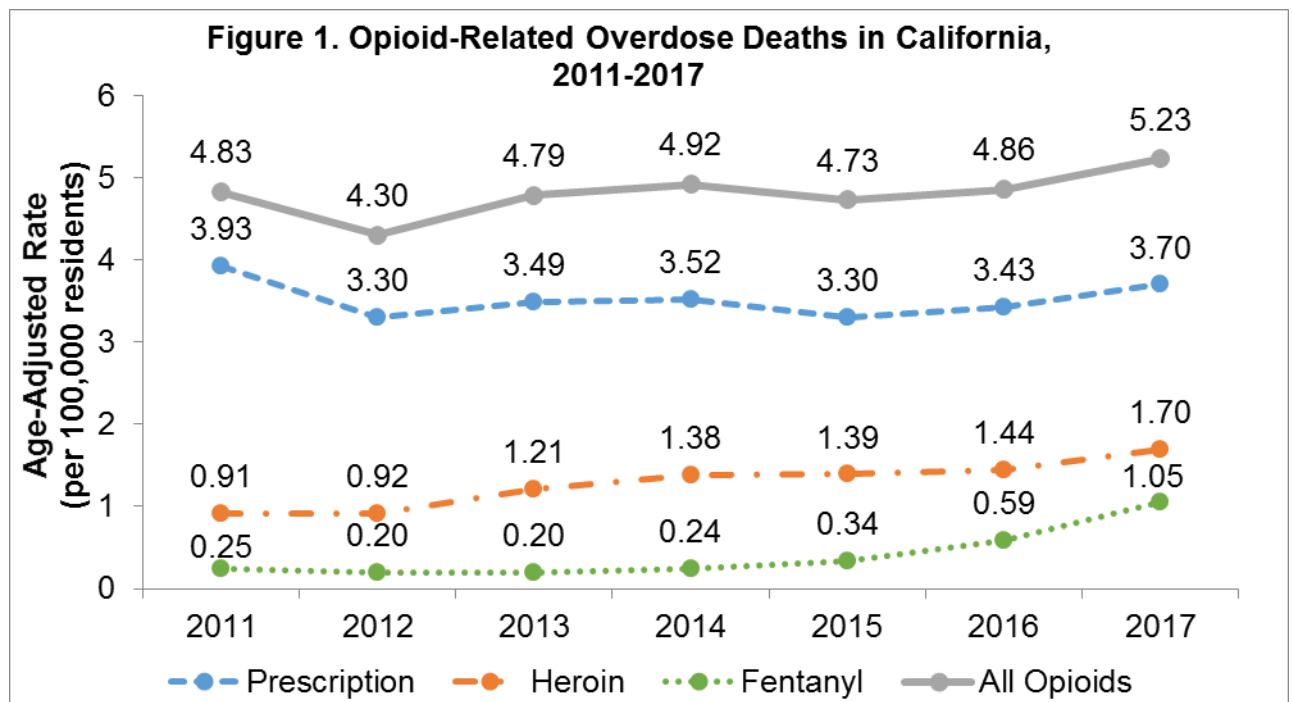


Patterns of Opioid-Related Overdose Deaths in California, 2011-2017

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.

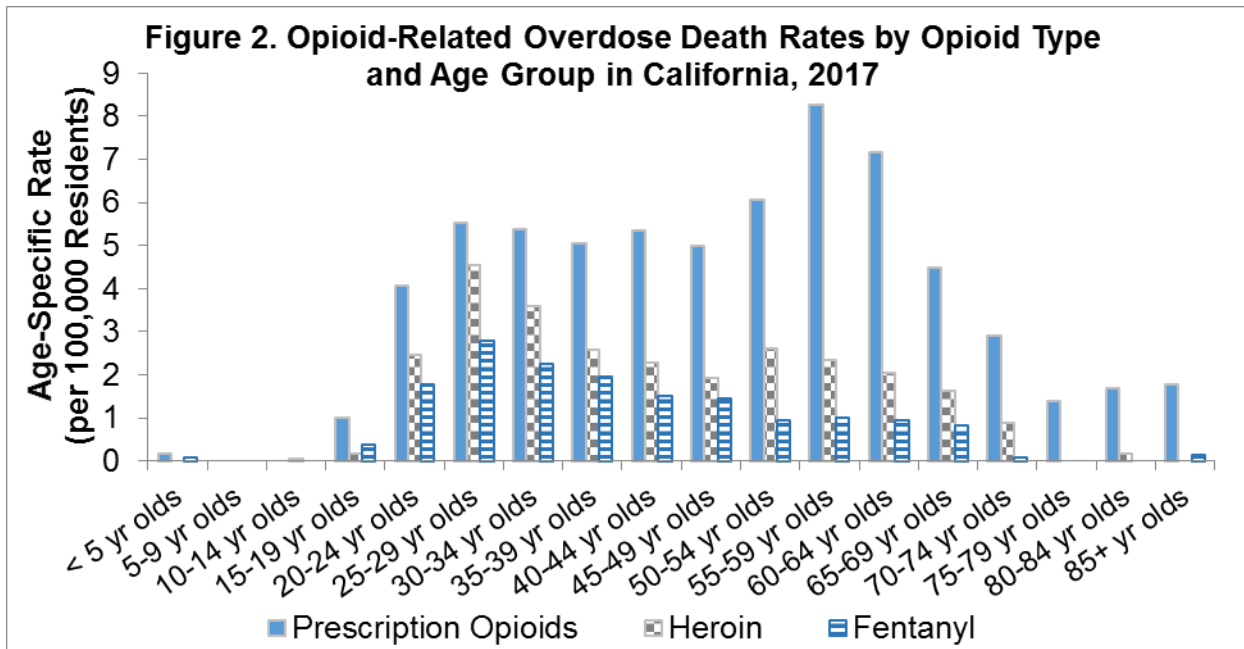
In 2017 there were 2,196 opioid-related overdose deaths (5.23 per 100,000). The majority (70%) of these overdose deaths involved prescription opioids. Overall trends from 2011 to 2017 show opioid-related overdose deaths have increased (Figure 1).

- ⇒ 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
Sex			
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)
Race/Ethnicity			
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/>

