



# Opioid Surveillance Update

California Tribal Epidemiology Center  
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## Key Highlights

The following are highlights from this document related to opioid-related encounters and opioid overdose deaths among AIANs throughout the State and within Indian Health Programs:

- Mortality data indicates AIANs in California have rates of opioid overdose deaths higher than the state average.
- Indian Users in California IHPs are treated for opioid use at a higher rate than that of their Non-Indian counterparts during the same time period.
- The vast majority of patient visits for Indian Users involving opioid misuse are for opioid dependence and opioid abuse.
- The highest prevalence of these opioid misuse occurred in Riverside County, Humboldt County, Sacramento County, and Sonoma County. The rest of the distribution throughout the state was fairly equal.
- Over 50% of the opioid misuse among Indian Users were for those 20-40 years old.

## Overview

This surveillance update presents data from both Vital Statistics and Indian Health Service (IHS) about opioid mortality (“Death Data”) and opioid misuse among the American Indian/Alaska Native (AIAN) population throughout California. The IHS data used in this report includes any patient visits to a California Indian Health Program (IHP) or clinic site and who are considered an active patient. IHPs can include both Tribal and Urban IHPs and their associated clinics throughout California. AIAN patients are described as “Indian Users” while Non-AIAN patients are described as “Non-Indian Users” throughout the document. Opioid misuse is captured using International Classification of Disease, 9 and 10 (ICD-9, 10) codes. It is known AIANs tend to be underreported in medical and mortality records likely due to racial misclassification of AIAN.<sup>1-2</sup> For this reason, some caution should be

taken when interpreting certain data related to AIAN mortality statistics.

## Mortality Data

Mortality data for opioid overdose deaths show AIANs having similar death rates than Whites between 2006 and 2016.<sup>3</sup> Although AIAN rates are generally lower than that of Whites, they remain higher than the overall state average (see Figure 1 on following page). During this time period both AIAN and Whites between the ages of 45-54 years old had the highest burden of opioid overdose deaths compared to all other age groups (see Figure 2 on following page).

<sup>1</sup> Haozous EA, Strickland CJ, Palacios JF, Solomon TGA. Blood Politics, Ethnic Identity, and Racial Misclassification among American Indians and Alaska Natives. *Journal of Environmental and Public Health*. 2014;2014:321604. doi:10.1155/2014/321604.

<sup>2</sup> Jim MA, Arias E, Seneca DS, et al. Racial Misclassification of American Indians and Alaska Natives by Indian Health Service Contract Health Service Delivery Area. *American Journal of Public Health*. 2014;104(Suppl 3):S295-S302. doi:10.2105/AJPH.2014.301933.

<sup>3</sup> Multiple Cause of Death 1999-2016 on CDC WONDER Online Database, released 2017. Data are from the Multiple Cause of Death Files (*Underlying: X40-44; X6-64; X85; Y10-14; Opioid: T40.0-T40.4/T40.6; T40.1; T40.2; T40.3; T40.4*), 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/mcd-icd10.html> on January 31, 2018.

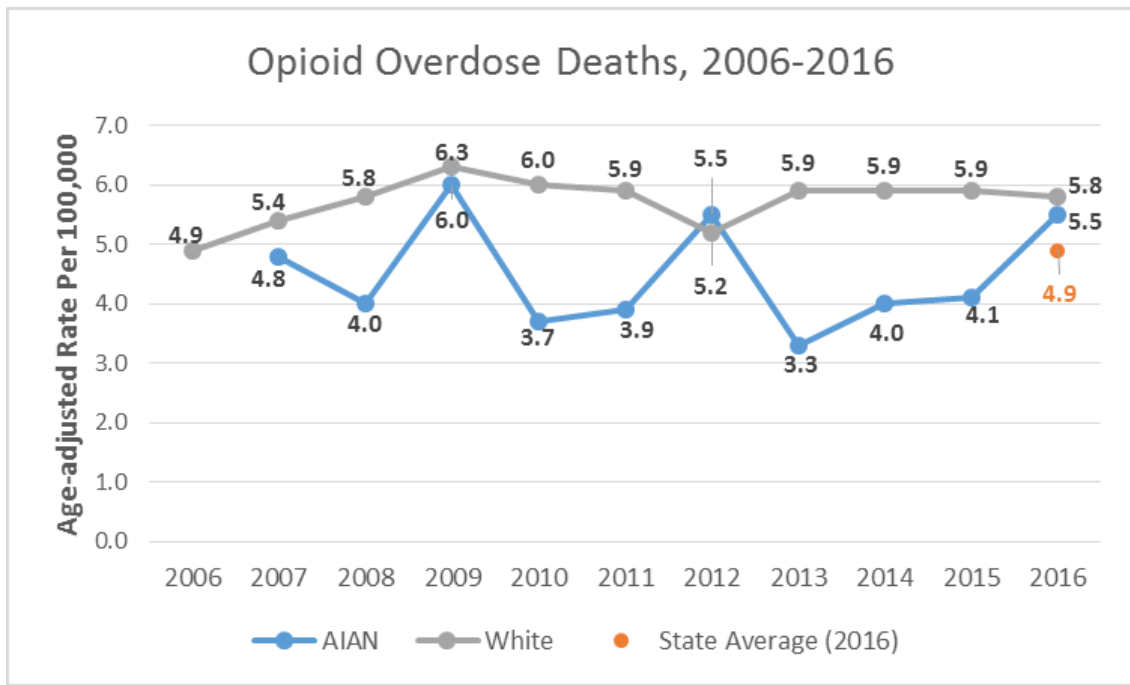


Figure 1. Opioid overdose death across years among AIAN and Whites

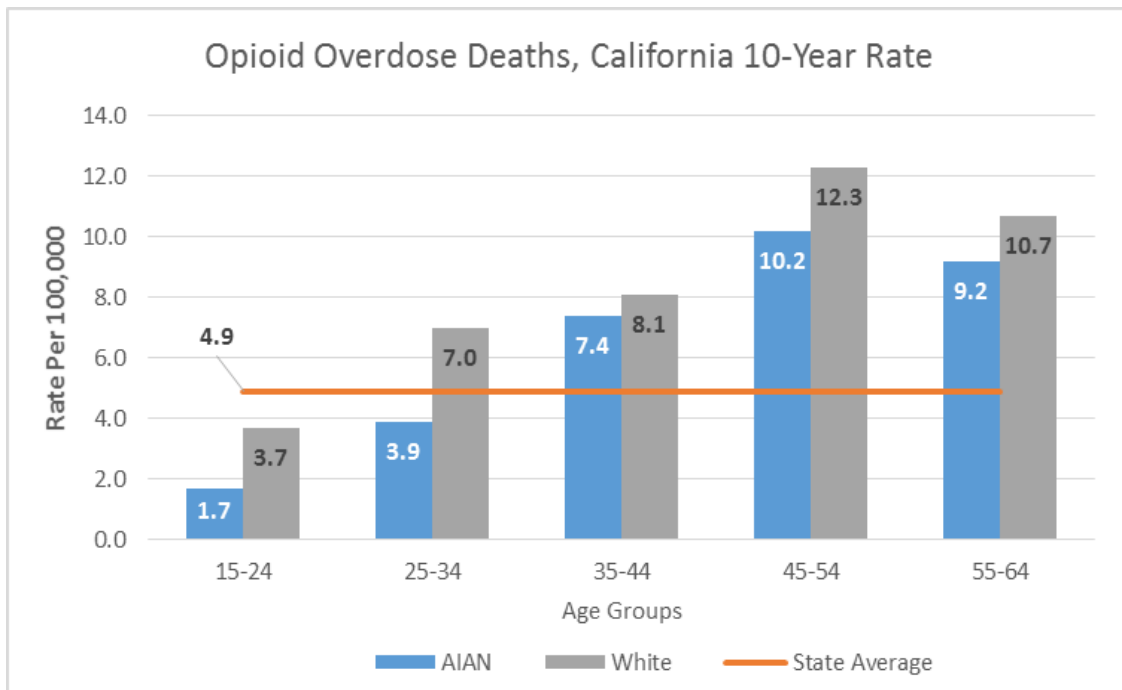


Figure 2. Distribution of opioid overdose deaths by age groups

## Indian Health Program Data

Among California IHPs between 2007 and 2017, active Indian Users experienced nearly twice as many patient visits due to opioid misuse compared to active Non-Indian users.<sup>4</sup> In other words, AIAN patients were seen nearly twice as many times for opioid-related causes at IHPs than Non-Indian patients in the same time periods (see Figure 3).

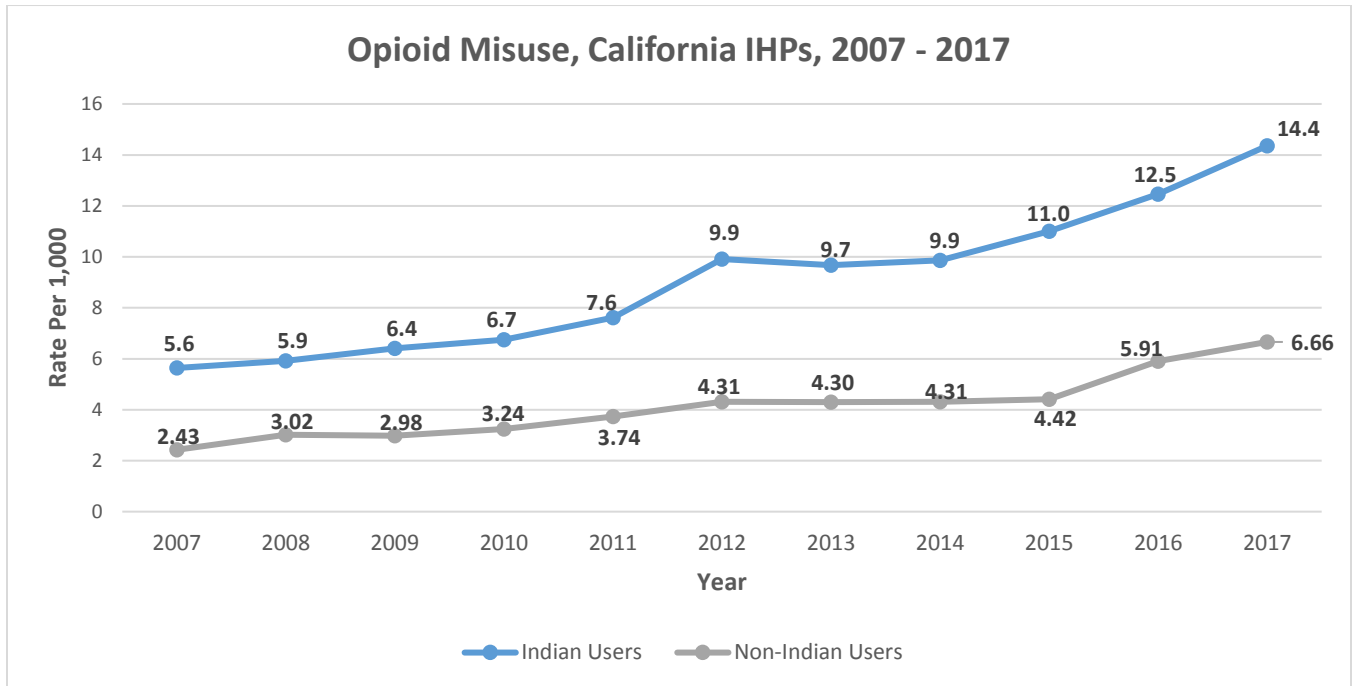


Figure 3. California Indian Health Program opioid patient encounters during the past ten years

These encounters include patient visits for opioid abuse, opioid dependence, opioid poisonings, and/or other adverse effects of opioids. Among Indian Users in 2017, nearly 75% of opioid misuse were classified as opioid dependence, while just over 20% of these visits were classified as opioid abuse (see Figure 4). In other words, most of the opioid misuse among AIANs seen at California IHPs can be classified as opioid dependence and opioid abuse.

Both abuse and dependence of opioids appear similar, but differ in how a patient receives a diagnosis.

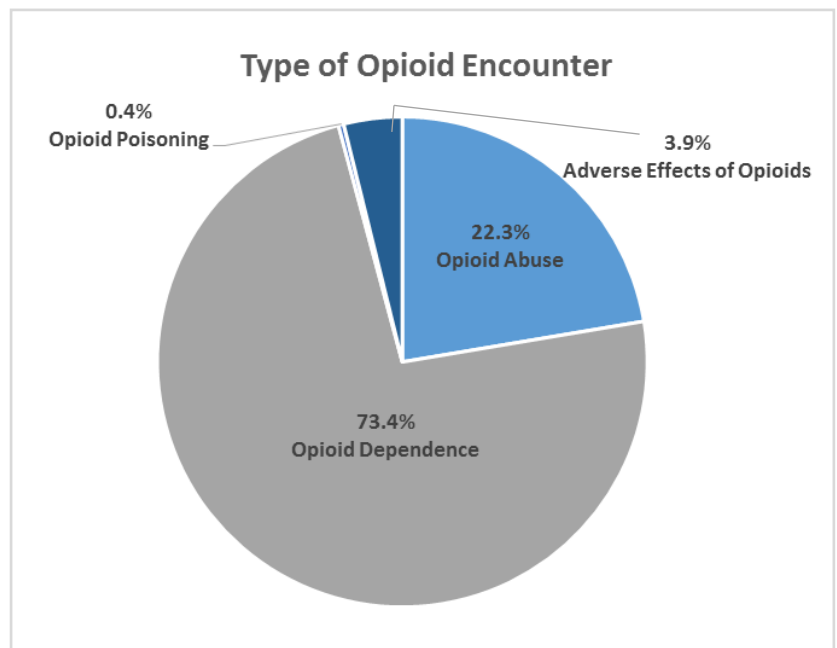


Figure 4. Opioid patient visit classification

<sup>4</sup> Indian Health Service Epidemiology Data Mart Patient Encounter Data, 2007-2017. Data are from Indian Health Program active patient visit data. International Classification of Diseases, Ninth Revision and Tenth Revision, Clinical Modification codes (ICD-9 and ICD-10): *Opioid Abuse, Adverse Effects of Opioids, Opioid Dependence and Unspecified Use, and Opioid Poisoning.*

For example, “abuse” implies that a person can take the drug and function properly, while “dependence” means that the person needs the drugs in order to function at all. Typically, a dependent patient will exhibit signs of withdrawal when not using the drug/opioid while an abusing patient may or may not show these signs. The distribution of opioid-related patient encounters among Indian Users varied throughout the state.

The highest concentration, or prevalence, of Indian Users who received diagnoses for misuse were located in Humboldt County in Northern California as well as Riverside County in Southern California. Sacramento County and Sonoma County also had a high prevalence of opioid misuse while the remaining distribution was fairly equal throughout the State (see Figure 5).

Over 52% of the opioid misuse among Indian Users occurred among those between the ages of 20 to 40 years old (see Figure 6 on following page).

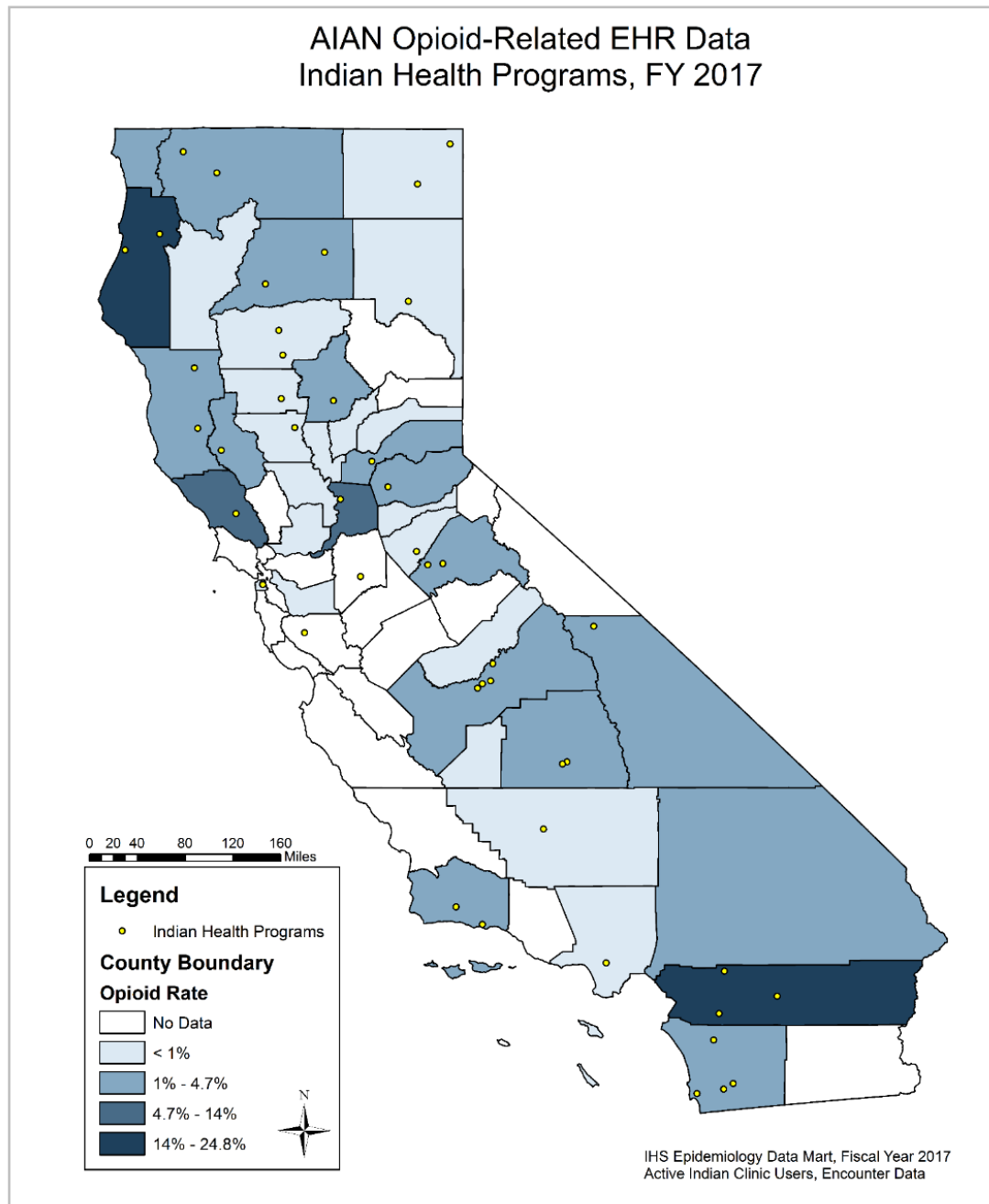


Figure 5. County-level prevalence of opioid misuse among Indian Users

This substantial increase in opioid misuse, particularly for opioid dependence and opioid abuse, is a cause for concern for Tribal communities, AIAN populations throughout California, and for IHP leaders and the communities they serve. AIANs are at a particular disadvantage for opioid use, abuse, and overdose deaths due to socio-economic status, behavioral health conditions, and historical trauma.<sup>5</sup> In 2017, AIANs throughout the State identified drug use as a major health priority and an area they would want the California Tribal Epidemiology Center to focus more attention.<sup>6</sup> Some general caution should be taken when interpreting these results using IHS data as a consensus-based case definition of opioid misuse within the IHS Epidemiology Data Mart has not been established yet.

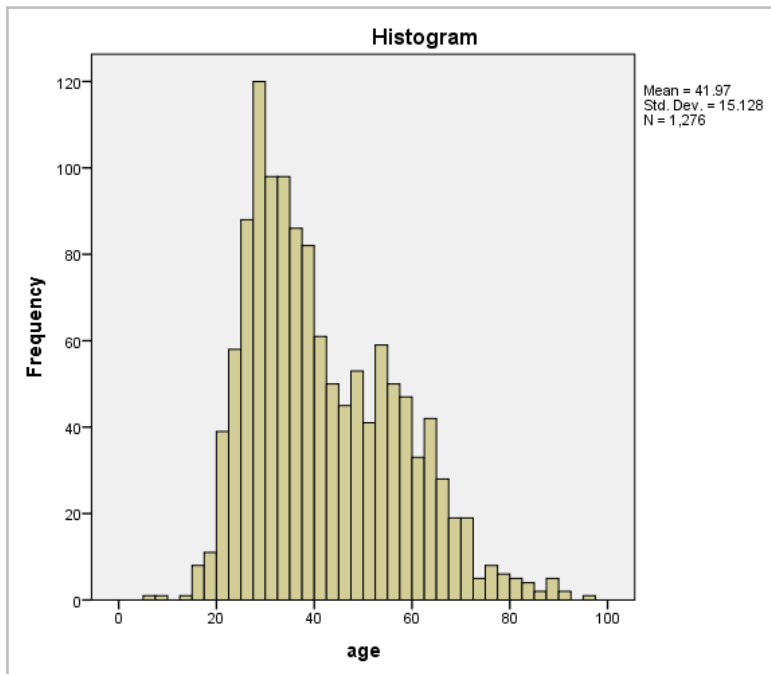


Figure 6. Frequency count of opioid misuse across age of Indian users

<sup>1</sup> Ehlers CL, Gizer IR, Gilder DA, Ellingson JM, Yehuda R. Measuring historical trauma in an American Indian Community Sample: Contributions of substance dependence, affective disorder, conduct disorder and PTSD. *Drug and alcohol dependence*. 2013;133(1):10.1016/j.drugalcdep.2013.05.011. doi:10.1016/j.drugalcdep.2013.05.011.

<sup>1</sup> California Tribal Epidemiology Center. Health Priorities Survey Report. Issued September 2017. See: <https://crihb.org/wp-content/uploads/2018/02/HPSReport2017.pdf>



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