

Opioid Overdose Harmonization

Query Methods, Plots, and Notes

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Dashboard Reporting

Footnotes

1. Links to detailed source-specific methods: [HCUP](#), [SUDORS](#), and [CDC WONDER](#).
2. All rates reflect events per 100,000 persons.
3. Coded numerical values were introduced to denote suppressed, missing, or unreliable values.
 - NA: “Not Available” or “Not Applicable”, depending on the situation ([CDC WONDER Documentation](#)). Aggregated NA’s imply all components were NA.
 - 7777: Incomplete information. This was introduced during aggregation of age-groups or dates and indicates at least component was missing, NA, 8888, or 9999.
 - 8888: Rates are unreliable as the numerator is 20 or less.
 - 9999: Suppressed counts to ensure the criteria for confidentiality constraints ([CDC WONDER Documentation](#)). Aggregated 9999 imply all components were suppressed.

Footnotes

4. HCUP's documentation did not imply that the rates were age-adjusted, justifying all of them being labeled as crude rates, only.
5. Age-adjusted rates are available for entries that have not been stratified by age. CDC WONDER used the 2000 Census population for age-adjustments, and SUDORS used the 2010 U.S. Census population.
6. Underlying Cause of Death outcomes are defined by the CDC WONDER definition for that variable, and selections were made based on the UCD – Drug/Alcohol Induced Causes subset of ICD-10 codes ([Step 6. Select underlying cause of death](#)). “All” means any available underlying cause of death code, and “Unintentional” selects Drug poisonings (overdose) Unintentional (X40–X44) and only Drug poisonings (overdose) Undetermined (Y10–Y14).

Footnotes

7. Drug outcomes indicated as “All” are only present in the SUDORS dataset. These are drug overdose/poisoning events involving opioids, stimulants, depressants, or polysubstances.
8. “All Opioids” is defined by the HCUP documentation, including ICD-10 codes T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Other synthetic narcotics), T40.6 (Other and unspecified narcotics), F11.0 (Mental and behavioural disorders due to use of opioids, acute intoxication).
9. Overdose events involving multiple drug types (polysubstances) were included for the SUDORS and CDC WONDER datasets. SUDORS batches opioid plus any stimulants (including Cocaine) or depressants (including Benzodiazepines). CDC WONDER only included the ICD-10 codes T42.4 (Benzodiazepines) and T40.5 (Cocaine).

CDC WONDER

Dataset

CDC WONDER

- Multiple Cause of Death (Final)
- Current Final Multiple Cause of Death Data
- 2018 – 2022

Data request link for “[About Multiple Cause of Death, 2018-2022, Single Race](#)”.

Variables of Interest

Timeframe Year or by month.

Region National or by state.

Place of Death All places, Medical Facility – Inpatient (IP), or Medical Facility – Outpatient or ER (ED). [Description link](#).

Underlying Cause of Death All Causes of Death and Unintentional (ICD -10 codes X40–X44 and Y10–Y14 together). Selected from subset ICD codes by Drug/Alcohol Induced cases. [Description link](#).

Variables of Interest

Race Not Hispanic or Latino with Single Race – 6 Race Categories (“3. Select demographics” and “1. Organize table layout”, respectively). [Single Race description link](#).

Hispanic Origin (“1. Organize table layout” only). [Hispanic Origin description link](#).

Sex or Gender Male or Female.

Age Ten-year age groups. [Description link](#).

NOTE: [age-adjustments](#) are applied to all other stratifications by cannot be applied when grouped by age.

Variables of Interest

Multiple Causes of Death T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Other synthetic narcotics), T40.6 (Other and unspecified narcotics), F11.0 (Mental and behavioural disorders due to use of opioids, acute intoxication), T42.4 (Benzodiazepines), and T40.5 (Cocaine).

Report:

- a) Each coding separately.
- b) All opioids (T40.0 – T40.4, T40.6, F11.0).
- c) All opioids + Benzodiazepines.
- d) All opioids + Cocaine.

Table Organization

The order for stratifying information. Include one output for “All deaths” and “Unintentional”.

“Not grouped” means that variable is not selected for table organization.

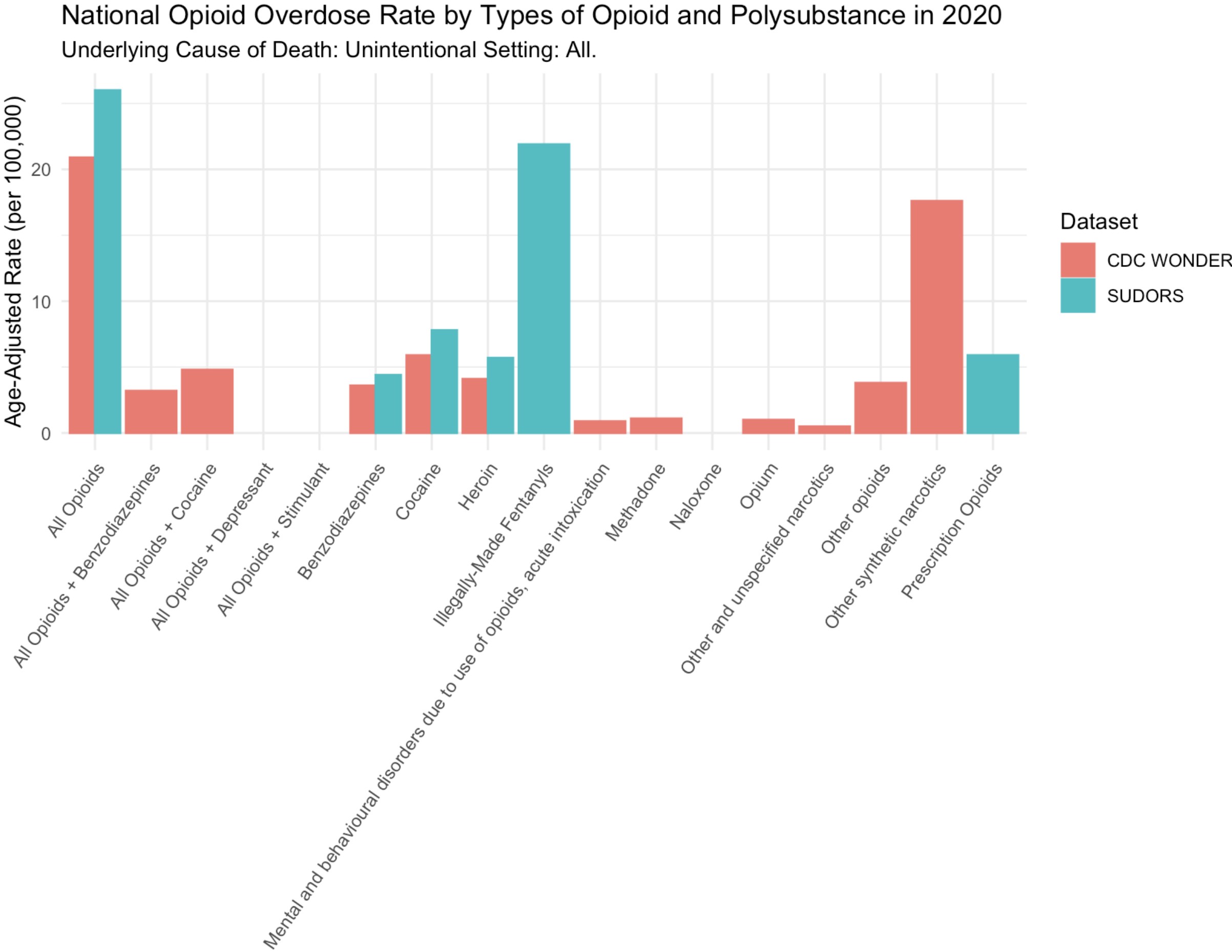
Each combination of the five settings is downloaded separately.

1. Year or Month
2. Location = National: Not grouped
Location = State: Grouped
3. Stratification: None, race, sex, or age
4. Place of death = All: Not grouped
Place of death = IP or ED: Grouped
5. Multiple Causes of Death. Not grouped when combined by Benzodiazepines/Cocaine.

Static Plots

Datasets: SUDORS and CDC WONDER.

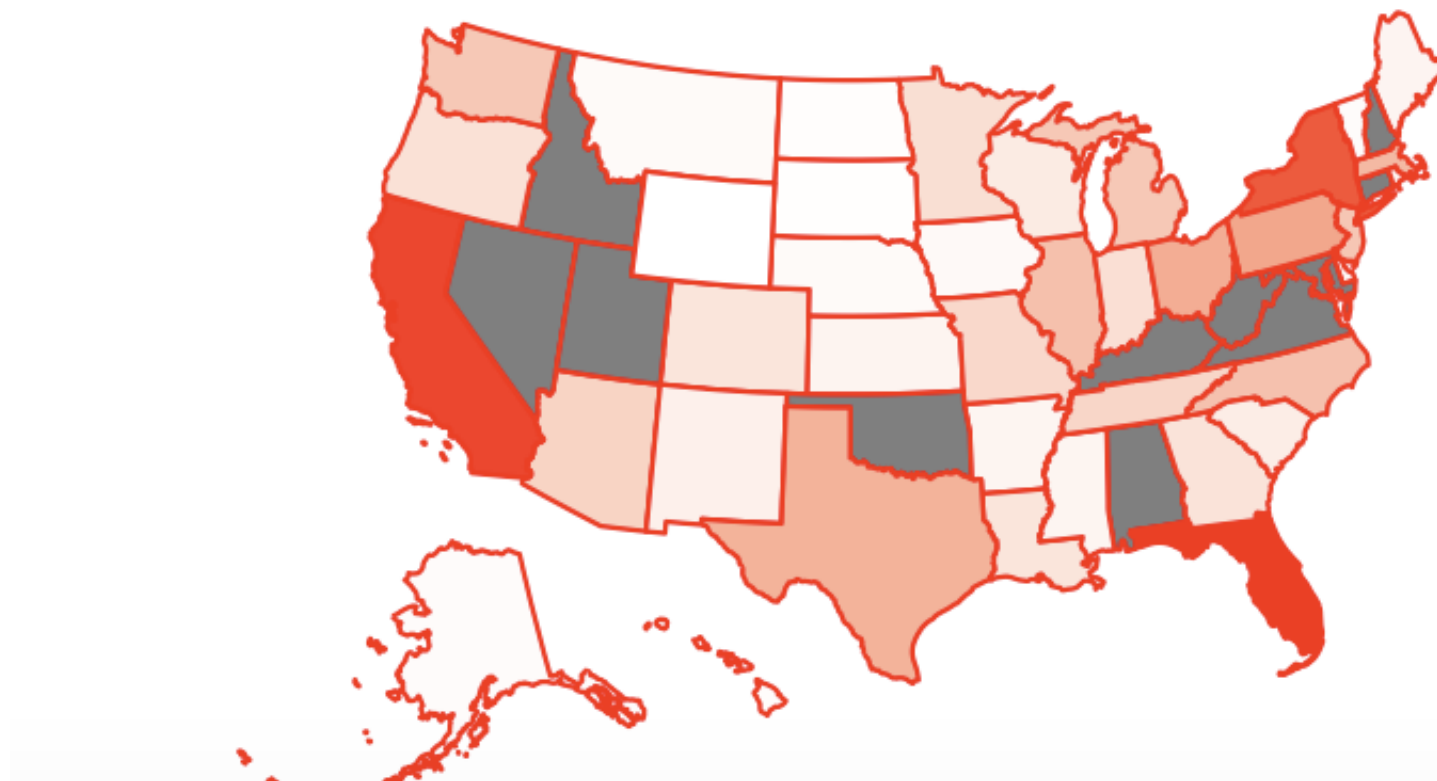
Vary: Year = 2020, 2021, and 2022.



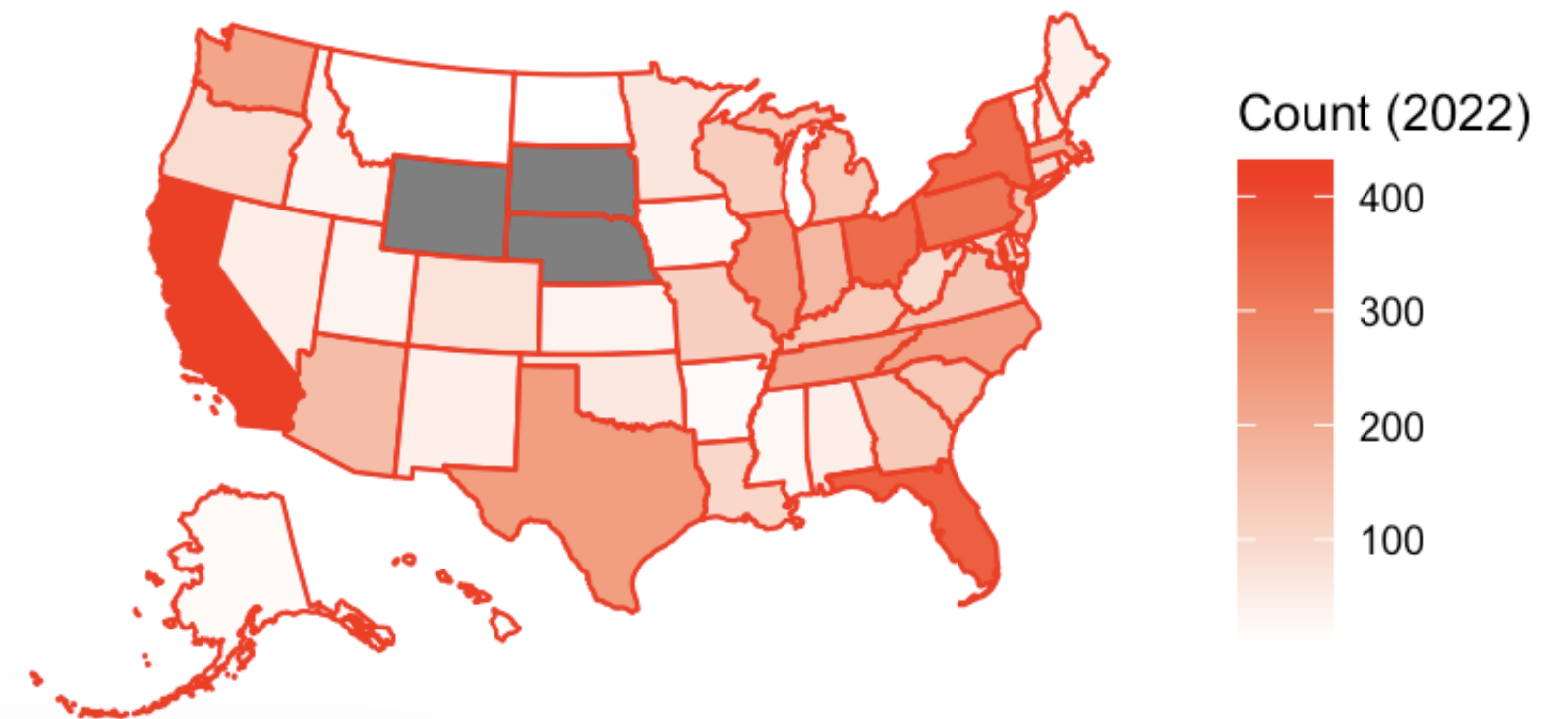
National Opioid Overdose Counts for All Opioid Types in 2022

Underlying Cause of Death: All Setting: Medical Facility - Inpatient.

A AHRQ



B CDC WONDER



Datasets: AHRQ and
CDC WONDER.

Vary: Setting =
inpatient or ER.

The background of the slide is a deep blue image of Earth as seen from space, showing the curvature of the planet and city lights at night. Overlaid on this is a complex network of glowing blue lines and dots, resembling a global data network or a constellation.

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