

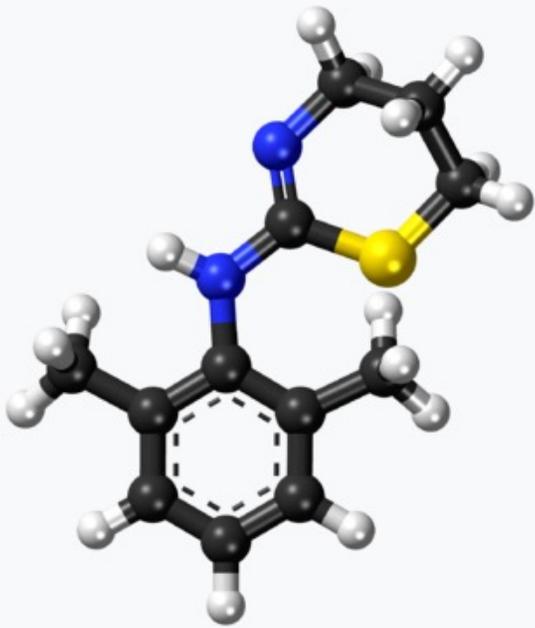
CONTENTS

- Xylazine Overview & Data Limitations
- CDC's SUDORS Dashboard
- How Useful is Opioid-Related Twitter Data?
- A Data Bridge



BUTTE-GLENN OPIOID SAFETY DATA NEWSLETTER

JANUARY 2023



Xylazine National Data Limitations

Xylazine related overdose deaths are underestimated for the following reasons: How deaths are classified (ICD-10) may not specify the substance involved, overdose reporting systems may not specify xylazine, xylazine testing in an overdose death may only occur at the request of the medical examiner and not routinely, and it is only a recommendation to specify all involved substances on death certificates.

Xylazine Overview

Xylazine is a known FDA approved drug for use in veterinary medicine, but not humans. It is a non-opioid anesthetic and sedative that leads to central nervous system depression, decreases heart rate, decreases blood pressure, and decreases respiratory rate. Xylazine has become a common additive in the illicit drug market as an additive to fentanyl, heroin, and cocaine – playing increased role in drug overdose deaths.

Observational studies have supported that skin ulcerations may be associated with xylazine injection use. The ulcerations may or may not be localized to the site of injection and can occur diffusely.

ARTICLE REFERENCE:

Ryan S. Alexander, Bethany R. Canver, Kimberly L. Sue, and Kenneth L. Morford, 2022: **Xylazine and Overdoses: Trends, Concerns, and Recommendations** American Journal of Public Health **112**, 1212_1216, <https://doi.org/10.2105/AJPH.2022.306881>

ANECDOTE FROM THE FIELD:

An anonymous xylazine street drug user, interviewed by a researcher, reported that xylazine has a characteristic taste that can be noticed immediately after injection: ***“You know a bag got tranq in it because you’ll shoot it and your mouth goes dry right away, and you know, you taste it.”***

Source: Friedman et al, 2022.

Xylazine in Overdose Deaths

Type of Jurisdiction □ City ◇ County ○ State Xylazine Positivity ● 0% ● >0%-2% ● 2%-5% ● 5%-10% ● 10%-15% ● 15+%

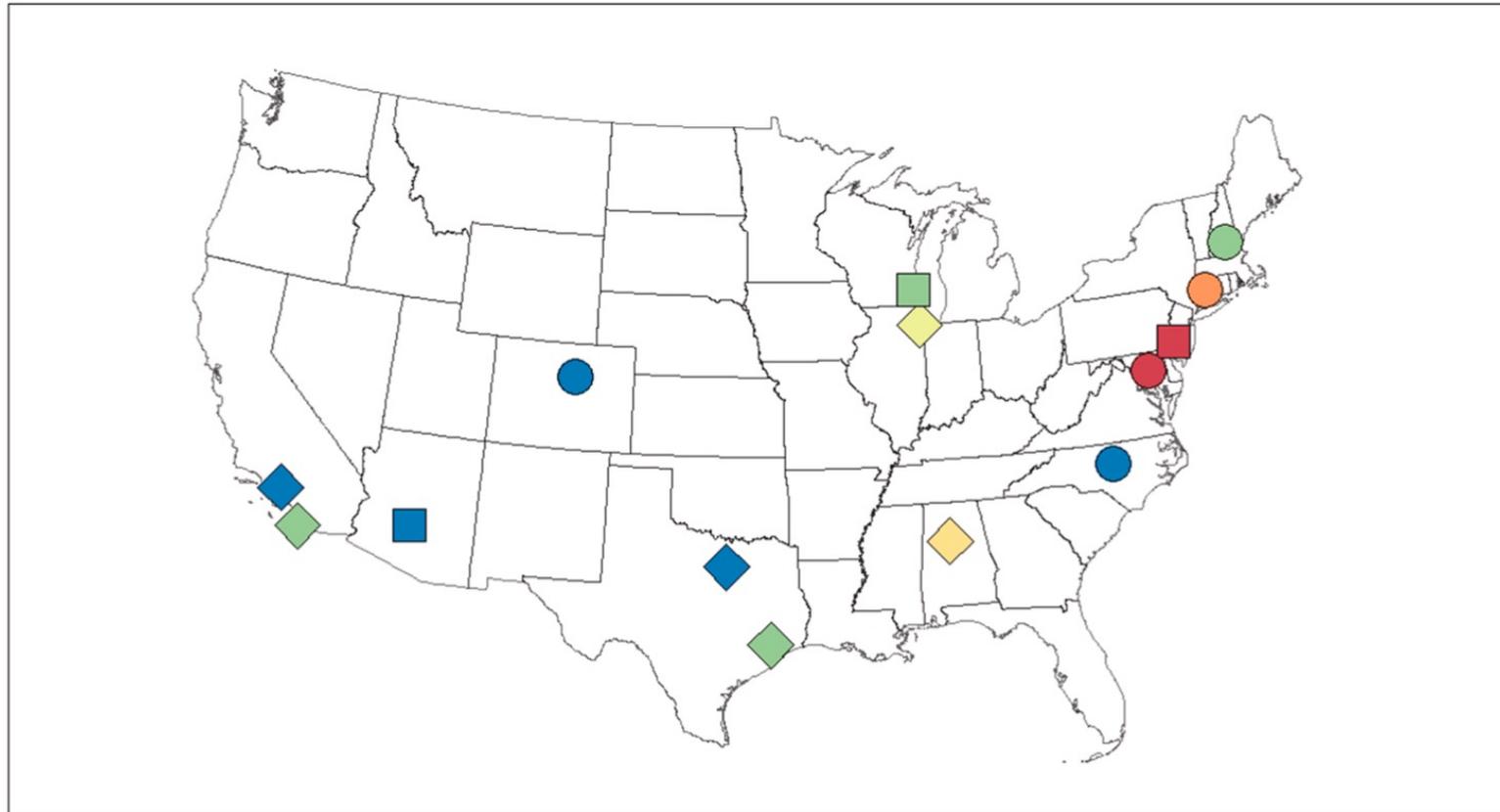


Fig. 2. Geographic Distribution of Xylazine Positivity in Overdose Deaths. This figure summarizes the geographic distribution of xylazine positivity in overdose deaths in the full database of 14 locations. Point shape corresponds to type of jurisdiction. Color corresponds to the magnitude of xylazine positivity in the most recent year of data available for each location. Values for 2021 represent estimates, should trends from the observed fraction of the year continue linearly. The time period shown in each point can be seen in [Supplemental Table 1](#).

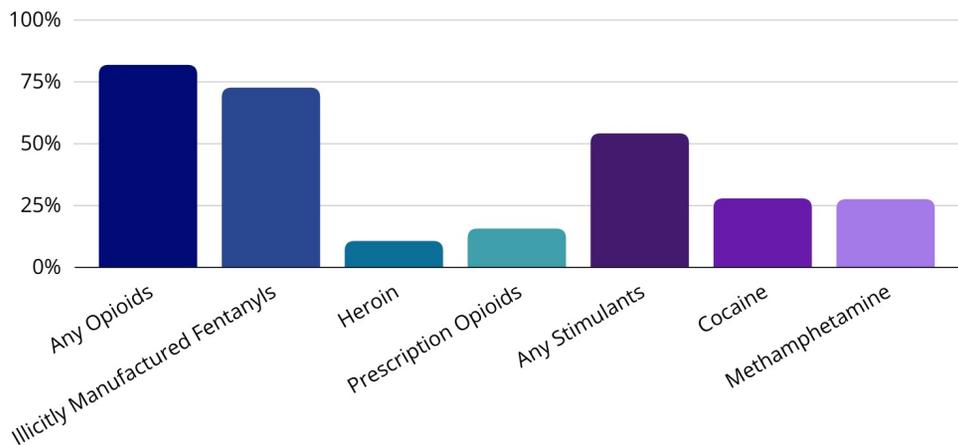
Interpretation for California: Xylazine was detected in a county in Southern California with a >0-2% positivity in deaths in 2021.

Source:

Friedman, J., Montero, F., Bourgois, P., Wahbi, R., Dye, D., Goodman-Meza, D., & Shover, C. (2022). Xylazine spreads across the US: A growing component of the increasingly synthetic and polysubstance overdose crisis. *Drug and alcohol dependence*, 233, 109380. <https://doi.org/10.1016/j.drugalcdep.2022.109380>

Percentages^f of overdose deaths involving select drugs and drug classes in 2021, Overall (32 jurisdictions)

81.9% of deaths involved at least one opioid and 54.2% involved at least one stimulant. Illicitly manufactured fentanyl was the most commonly involved opioids. The most common stimulant involved in overdose deaths was cocaine.



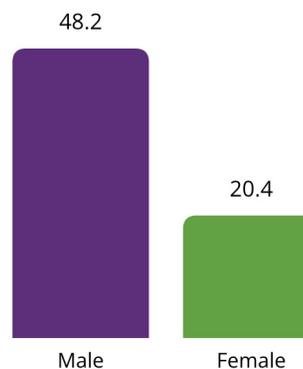
Who died of a drug overdose in 2021, Overall (32 jurisdictions)^h

Overall (32 jurisdictions) 2021

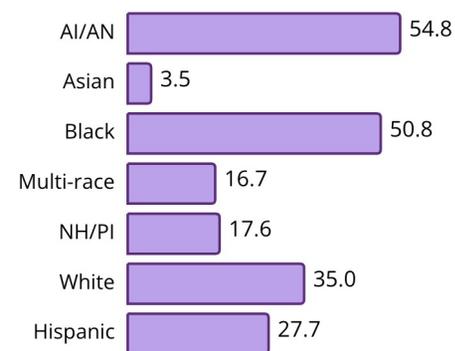
70.3% of people who died of a drug overdose were male, 26.0% were 35-44 years old, and 67.9% were White, non-Hispanic. The largest percentage of males were aged 35-44 and the largest percentage of females were aged 35-44. Male, 35-44, and American Indian/Alaska Native, non-Hispanic race had the highest overdose death rates.

Metric: Rate per 100,000 persons Percent

By Sex



By Race/Ethnicity



CDC's SUDORS Dashboard

SUDORS (State Unintentional Drug Overdose Reporting System) – Overdose Death Data

The dashboard covers 32 jurisdictions across the continental United States and is based on information from death certificates and medical examiner reports.

We can see racial/ethnic disparities in overdose deaths. A key strategy to target such disparities, according to the JAMA text referenced below, is to have prison MAT services available and appropriate follow up after release.

Kirkegaard, M. & Manaugh, B. (2023). Opportunities for Clinicians and Health Systems to Address Disparities in US Drug Overdose Deaths by Race and Ethnicity. *JAMA*, 329 (1), 94-95. doi: 10.1001/jama.2022.19070.

Kariisa, M. , Seth, P. & Jones, C. M. (2022). Increases in Disparities in US Drug Overdose Deaths by Race and Ethnicity. *JAMA*, 328 (5), 421-422. doi: 10.1001/jama.2022.12240.

Dashboard Website:

<https://www.cdc.gov/drugoverdose/fatal/dashboard/index.html>

Research Summary:

Objective of Study: “Assess whether county-level overdose mortality burden could be estimated using opioid-related Twitter data.” The study dealt with data across the continental United States.

Methods: Various statistical methods & software were used on obtained data including social media data to produce real-time county-level estimates of overdose mortality.

Conclusion: “Prediction of opioid-related outcomes can be advanced to inform prevention and treatment decisions. This interdisciplinary approach can facilitate evidence-based funding decisions for various SUD prevention and treatment programs.”

“Estimating County-Level Overdose Rates using Opioid-Related Twitter Data”

The article showed much potential for using Twitter data to lead to overdose mortality estimates, which can be used for many purposes as mentioned in the conclusion. More specifically, estimated latitude and longitudinal coordinates of the Tweets carry valuable information especially in real-time. The approach could be an adjunct to OD MAP, however, the article has only a skeleton of what needs to be done for full implementation. A higher level of expertise in the study design/methods should lead to further improvement in prediction of opioid outcomes.



Source: Cuomo, R., Purushothaman, V., Calac, A., McMann, T., Li, Z., & Mackey, T. (2022). Estimating County-Level Overdose Rates using Opioid-Related Twitter Data: Interdisciplinary Infodemiology Study. *JMIR formative research*, 10.2196/42162. Advance online publication. <https://doi.org/10.2196/42162>

Food for Thought

We live in an age of not only epidemics, but also information epidemics. Even for college graduates, dealing with information epidemics can be challenging. Sometimes the line between information and misinformation is unclear. To complicate things further, information is ever-evolving. What can we trust to navigate the information epidemics? Peer-reviewed journal articles? Statistical analysis? What are your thoughts?

Feel free to email vista@bgmsonline.org



A Data Bridge

Reading through the Friedman et al article, I realized that there is a disconnect in general between the scientific community and individuals on the street battling SUD. Individuals with SUD should be interviewed as was shown in the article. All data are not numbers. Data are words as well and present as Qualitative Research. The words or “data” of the scientific community often differs from the words or “data” from individuals on the street with SUD. A data bridge is needed between these communities. I did not know what “gives fentanyl legs” means or that “tranq” can mean xylazine until I read it in Friedman et al. A person’s words related to health outcomes is often dismissed as anecdotal evidence, but that can be valuable data too, especially if it has generalizable patterns. Let’s continue to build bridges for the well-being of all.



Additional Resources:

Friedman, J., Montero, F., Bourgois, P., Wahbi, R., Dye, D., Goodman-Meza, D., & Shover, C. (2022).

Xylazine spreads across the US: A growing component of the increasingly synthetic and polysubstance overdose crisis. *Drug and alcohol dependence*, 233, 109380.

<https://doi.org/10.1016/j.drugalcd.2022.109380>

Credits:

News Content Selection:

Anna Zepeda & Sheetal Chowdhary, D.O.

Newsletter Editor:

Sheetal Chowdhary, D.O.

Americorps VISTA Associate at BGMS

2023 MPH Candidate at CUNY

Contact:

Sheetal Chowdhary,
D.O.

E-mail:
vista@bgmsonline.org