

Trends in Opioid-Related Overdose Deaths in the United States

Since 1999, more than 1.2 million people in the United States have died from a drug overdose. Over the same period, the share of fatal drug overdoses involving opioids has increased every year – rising from under 50% in 1999 to over 75% since 2021.¹ While recent data suggest a national decline in opioid-related overdose deaths, the crisis remains severe. This brief explores the recent decline in opioid-related overdose deaths, potential contributing factors, and the ongoing challenges that demand continued public health attention.

TRENDS IN OPIOID-RELATED OVERDOSE DEATHS: A RECENT DECLINE

After years of rising fatalities, the United States has seen a modest but meaningful decline in opioid-related overdose deaths. Since 1999, opioid-related fatalities have grown every year except 2018. But in 2021 and 2022 the trend line plateaued. Then, for the first time since 2018, opioid-related

overdoses declined by 3% in 2023 – the largest decline in more than 25 years.²

POTENTIAL FACTORS CONTRIBUTING TO THE DECLINE

Changes in the Illicit Drug Supply

Shifts in the composition of the illicit drug supply may be a contributing factor. The Drug

Enforcement Administration (DEA) reported that approximately 30% of fentanyl seized in 2023 was laced with xylazine, a 25% increase from 2022.³ Because xylazine extends the duration of opioid effects, some researchers have hypothesized that it may reduce a person's frequency of opioid use.⁴ However, because it is not an opioid, a xylazine overdose is not reversible with naloxone and presents significant health risks.⁵

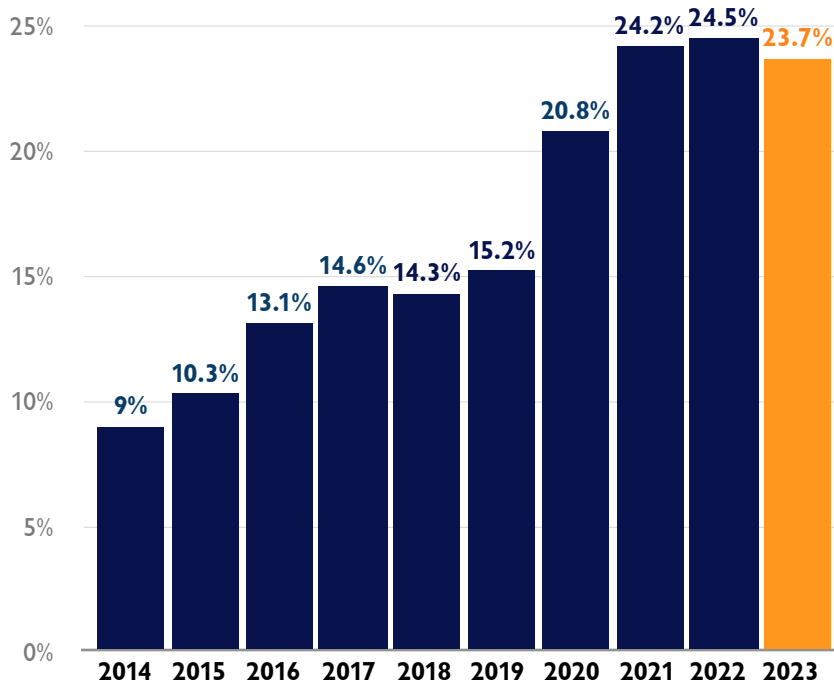
Overdose Prevention and Public Health Interventions

Naloxone Distribution

Naloxone, a life-saving medication that reverses opioid overdoses, has become more widely available. From 2019 to 2023, the rate of naloxone dispensed from pharmacies doubled from 0.3 to 0.6 per 100 persons, with over 2.1 million prescriptions filled in 2023 alone.⁶ Training programs for law enforcement and first responders have also improved overdose response rates and increased referrals to treatment.^{7,8,9}

Efforts to expand access include the launch of Remedy Alliance, a non-profit distributing low-cost naloxone, and the implementation of naloxone saturation plans.¹⁰ Additional state funding and FDA approval for over-the-counter naloxone have further increased accessibility.^{11,12}

FIGURE 1: OPIOID-RELATED OVERDOSE DEATH RATE (2014-2023), DEATHS PER 100,000 PEOPLE¹



Medications for Opioid Use Disorder (MOUD) Treatment Policy changes have also improved access to MOUD. The DEA eliminated the waiver requirement for prescribing buprenorphine and expanded take-home methadone options.¹³ These changes may have reduced barriers to treatment and improved continuity of care.^{14,15}

DESPITE DECLINES, OVERDOSE DEATHS REMAIN HIGH

Although the 2023 decline is encouraging, opioid overdose deaths remain alarmingly high. Nearly 80,000 people died of an opioid-related overdose in 2023, and opioid-related overdose deaths remain 177% higher than in 2014. Since 2017, when the opioid crisis was declared a public health emergency, opioid-related deaths have increased 68% despite the recent decline.¹⁶ The opioid crisis is far from over.

CONCLUSION

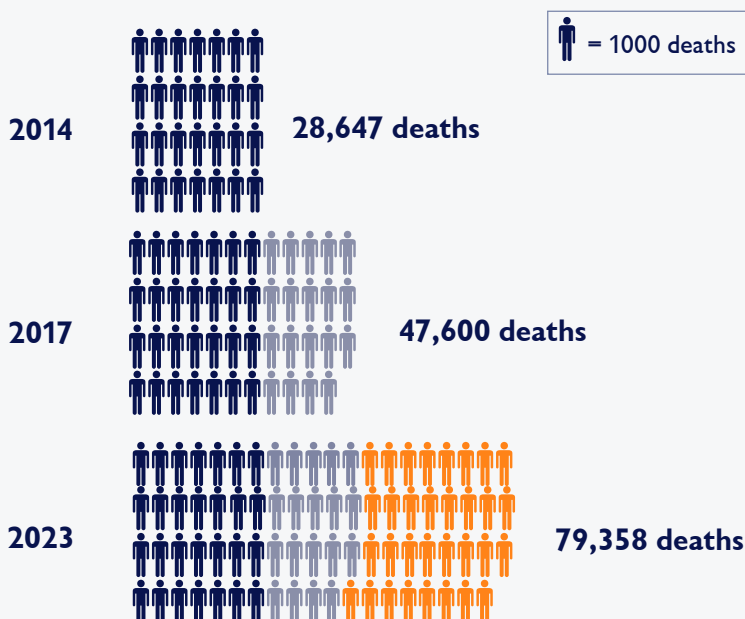
The recent decline in opioid overdose deaths is a promising development, possibly driven by changes in the drug supply and expanded efforts toward overdose reversal and MOUD treatment. But opioid overdoses remain very high. Continued investment is essential to ensure access to life-saving interventions and sustain progress in combating the opioid epidemic.

NOTES:

- Centers for Disease Control and Prevention (2025). CDC WONDER. Retrieved August 7, 2025, from <http://wonder.cdc.gov>
- Ibid
- Drug Enforcement Administration (2024). Statement from DEA Administrator Anne Milgram. Retrieved from <https://www.dea.gov/documents/2024/2024-04/2024-04-26/statement-dea-administrator-anne-milgram-increase-dea-fentanyl>
- Dasgupta, N., Miller, C., & Sibley, A. (2024). Are overdoses down and why? National Public Radio. Retrieved from <https://opioiddatalab.ghost.io/are-overdoses-down-and-why/>
- NIDA (2023). Xylazine appears to worsen the life-threatening effects of opioids in rats. Retrieved from <https://nida.nih.gov/news-events/news-releases/2023/06/xylazine-appears-to-worsen-the-life-threatening-effects-of-opioids-in-rats>

- CDC (2024). Naloxone dispensing rate maps. Retrieved from <https://www.cdc.gov/overdose-prevention/data-research/facts-stats/naloxone-dispensing-rate-maps.html>
- Beauchamp, G. A., Cuadrado, H. M., Campbell, S., Eliason, B. B., Jones, C. L., Fedor, A. T., Grantz, L., Roth, P., & Greenberg, M. R. (2021). A Study on the Efficacy of a Naloxone Training Program. *Cureus*, 13(11), e19831. <https://doi.org/10.7759/cureus.19831>
- Dahlem, C.H., Patil, R., Khadr, L. et al. Effectiveness of take ACTION online naloxone training for law enforcement officers. *Health Justice* 11, 47 (2023). <https://doi.org/10.1186/s40352-023-00250-9>
- Siddiqui, S.T., La Manna, A., Connors, E. et al. An evaluation of first responders' intention to refer to post-overdose services following SHIELD training. *Harm Reduct* 21, 39 (2024). <https://doi.org/10.1186/s12954-024-00957-4>
- Sugarman, O. K., Hulse, E., & Heller, D. (2023). Achieving the potential of naloxone saturation by measuring distribution. *JAMA Health Forum*, 4(10). Doi: [10.1001/jamahealthforum.2023.3338](https://doi.org/10.1001/jamahealthforum.2023.3338)
- Food & Drug Administration (2024). Information about Naloxone and Nalmefene. Retrieved from <https://www.fda.gov/drugs/postmarket-drug-safety-information-patients-and-providers/information-about-naloxone-and-nalmefene#:~:text=To%20support%20these%20efforts%2C%20the,is%20not%20a%20controlled%20substance>
- Substance Abuse and Mental Health Services Administration (2022). Department of Health and Human Services: FY 2022 state opioid response grants notice of funding. Retrieved from <https://www.samhsa.gov/sites/default/files/grants/pdf/fy-22-sor-nofo.pdf>
- Substance Abuse and Mental Health Services Administration (2024). Methadone take-home flexibilities extension guidance. Retrieved from <https://www.samhsa.gov/substance-use/treatment/opioid-treatment-program/methadone-guidance>
- Panwala, V., Joudrey, P., Kowalski, M., Bach, P., & Amram, O. (2023). Changes to methadone maintenance therapy in the United States, Canada, and Australia during the COVID-19 pandemic: A narrative review. *Journal of Substance Use and Addiction Treatment*, 152. Doi: [10.1016/j.josat.2023.209086](https://doi.org/10.1016/j.josat.2023.209086)
- Chua, K., Bicket, M. C., Bohnert, A. S. B., Conti, R. M., Lagisetty, P., & Nguyen, T. D. (2024). Buprenorphine dispensing after elimination of the waiver requirement. *The New England Journal of Medicine*, 390(16), 1530-1532. Doi: [10.1056/NEJMc2312906](https://doi.org/10.1056/NEJMc2312906)
- Centers for Disease Control and Prevention. (2025). CDC WONDER. Retrieved August 7, 2025, from <http://wonder.cdc.gov>

FIGURE 2: OPIOID-RELATED OVERDOSE DEATHS 2014, 2017 & 2023¹



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