

Ten years of data show drug overdoses remain a significant health threat

Fentanyl is the most common cause of drug overdose in Utah.

This report from the Utah Office of the Medical Examiner (OME) shows trends over the last 10 years of fatal drug overdose data (from 2014 to 2023) and disparities in drug overdose deaths between 2021 and 2023. Data trends in drug overdose deaths help us understand the impact this threat has on our lives, our communities, and our kids.



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Key findings

- The highest number of drug overdose deaths on record in Utah was in 2023.
- Most drug overdose deaths are accidents. Drug overdose is the leading cause of accidental death in Utah.
- There has been a decrease in the number of deaths from prescription opioids and heroin in Utah. However, the sharp increase in deaths from fentanyl outpaces the decrease in opioid prescription and heroin deaths. We will likely see an increase in the death rate from drug overdose if this trend continues.
- Most overdoses in Utah involve more than one substance and the types of drugs involved in overdose deaths have changed over the last few years.
- Fentanyl is now the most common drug in fatal overdoses.
- The number of deaths from fentanyl is 12.5 times higher than it was 10 years ago. For the first time, there are more deaths from fentanyl than from methamphetamine.
- The increase in the number of overdose deaths that involve fentanyl is largely due to the introduction of illegal fentanyl in the Utah drug supply.

The overdose death rate in Utah did not change much for over 10 years.

Drug overdose death rates peaked in 2015 and have stayed close to peak levels since (Figure 1). **However, more people died from a drug overdose in 2023 than ever before.** There were 606 drug overdose deaths in 2023—an increase of 14.3% from the year before. This increase is a return to the high number of deaths we saw in 2021.

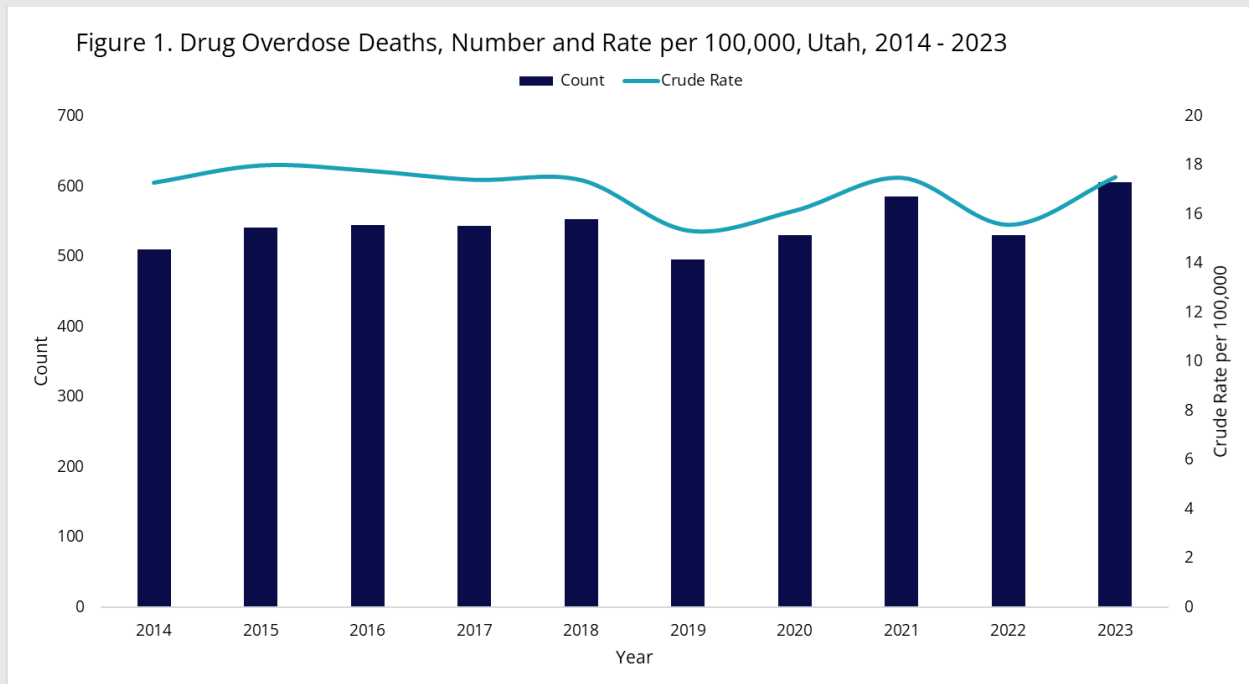


Figure 1. drug overdose deaths, number and rate per 100,000, Utah 2014 - 2023

Rates are different from counts. We use both because they give us more information about what is happening with overdoses in Utah. Rates standardize the number of people who died by drug overdose compared to the Utah population.

Counts are the total number of people who died of a drug overdose. Rates allow us to compare overdoses from year to year and between different place types, ages, sexes, etc.

Right now, we are seeing increasing counts while rates are remaining high, but not increasing. However, the sharp increase in deaths from fentanyl outpaces the decrease in opioid prescription and heroin deaths. We will likely see an increase in the death rate from drug overdoses if this trend continues.

The types of drugs in overdose deaths have changed.

Knowing the types of drugs involved in overdose deaths helps us know which policies, education, programs, services, and resources are needed to prevent these tragedies. The OME saw a change in the most common types of drugs involved in overdoses over time (Figure 2).

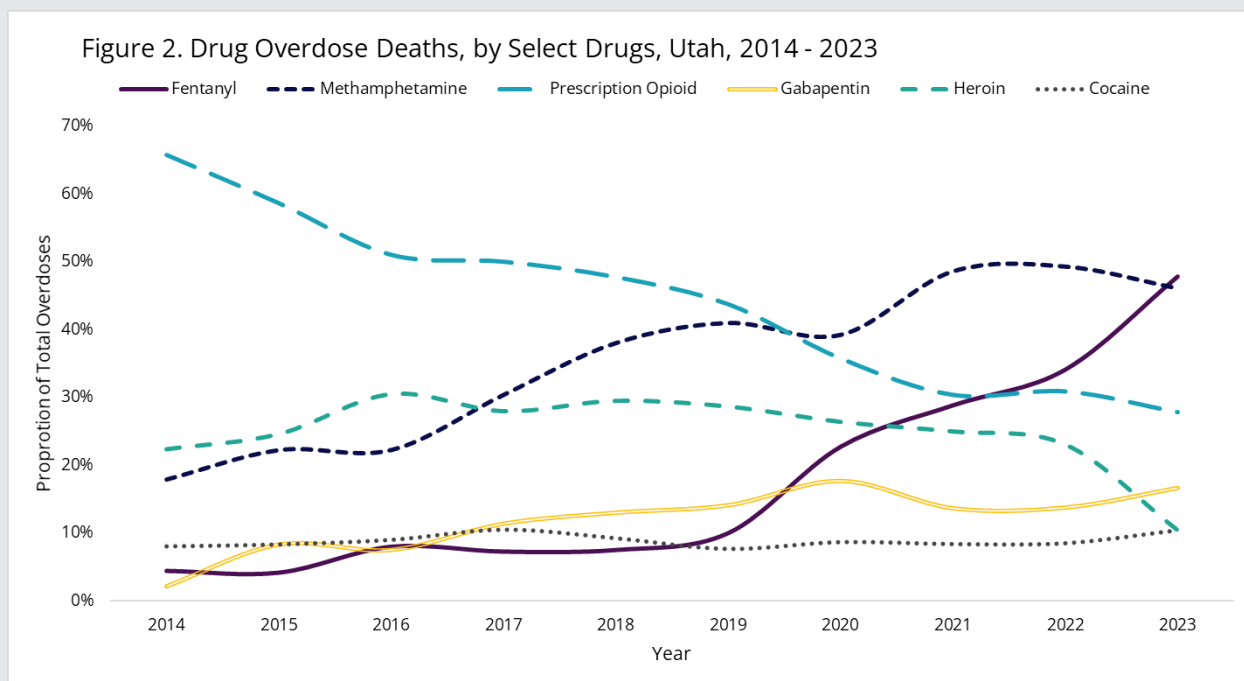


Figure 2. drug overdose deaths, by select drugs, Utah, 2014 - 2023

We used to see more prescription opioid and heroin deaths than we do now. Overdoses that involved methamphetamine surpassed the number of overdoses that involved heroin in 2017. Most drug overdose deaths in 2017 involved prescription drugs, heroin, methamphetamine—or a combination of these drugs. Now, most people die from drug overdoses that involve fentanyl or methamphetamine combined with other substances.

The most common substances involved in overdose deaths were:

1. Fentanyl
2. Methamphetamine
3. Gabapentin
4. Alcohol mixed with another drug
5. Oxycodone

- There has been a significant decrease in the number of deaths that involve heroin since its peak in 2016.
- There has also been a significant decrease in the proportion of overdoses that involve at least one prescription opioid, from 65.7% in 2014 to 27.9% in 2023.
- There were more deaths that involved gabapentin (a non-opioid prescription drug) in 2023 than any single prescription opioid (such as oxycodone or morphine) or heroin.
- Methamphetamine was the most common drug listed as a cause of death for many years and still plays a significant role in drug overdose deaths.
- Fentanyl is now the most common drug in overdose deaths. Fentanyl was involved in 47.9% of drug overdose deaths in 2023.

The sharp increase in the number of fentanyl-involved deaths outpaces reductions in deaths from prescription opioids. We will likely see an increase in the drug overdose death rate if this trend continues.

Most overdoses in Utah involve more than one substance. Deaths that involve more than one drug complicate efforts to reduce overdose deaths.

- Overdoses that involved more than one drug were common over the last 10 years—and continue to increase.
- 68% of overdoses in 2014 involved more than one substance. Now, most drug overdose deaths involve multiple substances (74% in 2023).

There has been an alarming increase in deaths that involve fentanyl.

Fentanyl¹ is a synthetic opioid used to treat patients after surgery or with severe chronic pain, and is about 50 to 100 times stronger than morphine. The FDA regulates how fentanyl is made and how licensed healthcare providers use it for medical treatment.

The increase in the number of overdose deaths that involve fentanyl is largely due to the introduction of illegal (or illicit) fentanyl into the Utah drug supply. People may overdose because they don't know they took something mixed with illegal fentanyl.

Fentanyl is extremely potent, low cost, and highly addictive.

- **There was a 1160.9% increase in deaths that involved fentanyl from 2014 to 2023.**
- **There were 290 deaths that involve fentanyl in 2023 compared to 23 deaths in 2014.**
- **The number of fentanyl deaths more than doubled between 2019 and 2020, and has continued to increase sharply.**

Disparities in drug overdose deaths

There were noticeable differences (disparities) in those who died from drug overdose from 2021 to 2023. Understanding these differences helps us know who needs the most help, resources, and education.

Middle-aged men have a significantly higher rate of drug overdose death.

Middle-aged men have a significantly higher rate of drug overdose death (Figure 3). Males had a significantly higher rate of drug overdose death than females from 2021 to 2023. About 21.7% of males who overdosed died, compared to 11.9% of females. The highest rate was among males ages 35 to 44. Females ages 45 to 54 had the highest rate among females.

Drug overdose deaths in children are rare.

Children ages 17 and younger have the lowest rates for drug overdose deaths. Drug related deaths among youth are rare. However, the proportion of overdoses among this age group that involve fentanyl is high. Fentanyl was involved in about 80% of overdoses in children ages 17 and younger between 2021 and 2023. Fentanyl is often lethal. It is extremely dangerous for youth to even casually experiment with drugs because they may contain fentanyl.

The rate of drug overdose deaths for children is not shown in Figure 3. The Office of the Medical Examiner does not report deaths when there are fewer than 5 to protect the privacy of the person who died.

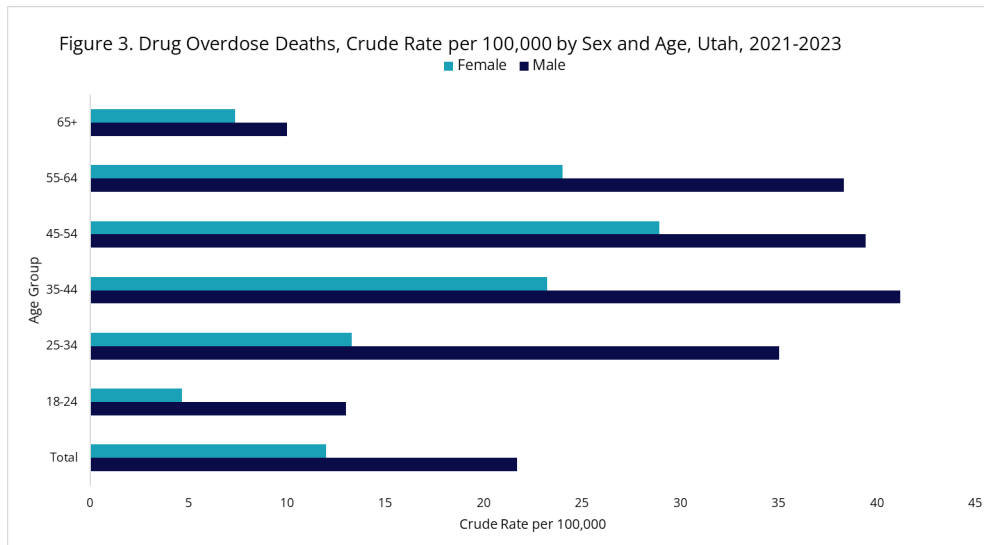


Figure 3. drug overdose deaths, crude rate per 100,000 by sex and age, Utah, 2021 - 2023

People who experience homelessness in Utah die at a higher rate and at much younger ages than those who are not homeless.²

There are many reasons why someone experiences homelessness, including drug use and addiction. People may also use drugs to cope with being homeless.³ About 28.7% of all deaths for people who experience homelessness were from drug overdoses, compared to 2.4% of all deaths for those who are not homeless. Improved access to substance use treatment options, primary healthcare, housing, and harm reduction services can prevent drug overdose deaths.

Some counties in Utah have higher rates of drug overdose deaths.

The drug overdose death rate between 2021 and 2023 was highest in Southeast Health District (Carbon, Emery, and Grand counties). This part of the state has seen high rates of drug overdose deaths since the start of the overdose crisis in the early 2000s. TriCounty (Daggett, Duchesne and Uintah counties), Salt Lake County, and Weber-Morgan health districts also had significantly higher rates of drug overdose deaths than the rest of the state in

Bear River, Davis County, Utah County, and Wasatch County health districts had significantly lower rates than the rest of the state between 2021 and 2023.

The rate of drug overdose deaths for San Juan and Wasatch health districts is not shown in Figure 4. The rate of drug overdose deaths is not shown in Figure 3. The Office of the Medical Examiner does not report deaths when there are fewer than 5 to protect the privacy of the person who died.

Figure 4. Crude rate of drug overdose deaths, by local health district of death, Utah, 2021-2023

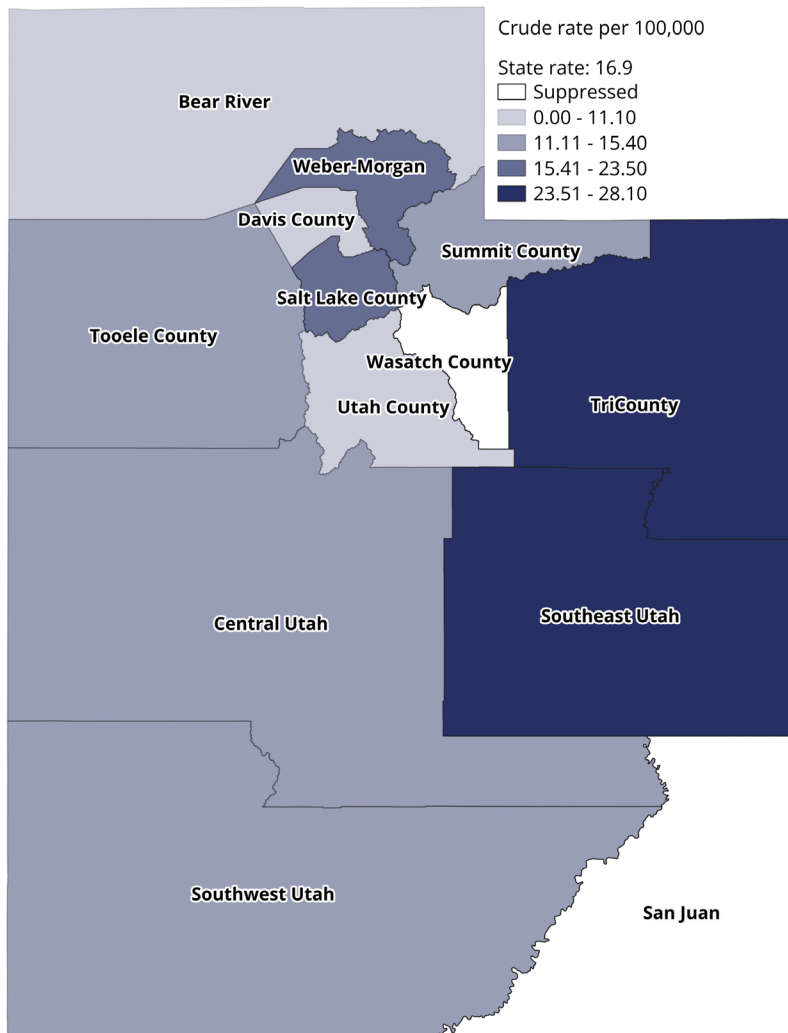


Figure 4. drug overdose deaths, crude rate per 100,000 by local health district, Utah, 2021 - 2023

Recommendations

There are many strategies that can reduce the number of overdose deaths in Utah. We have many resources to [help in a crisis](#) or help you find [treatment](#) for substance use and addiction.

Prevention, treatment, recovery and harm reduction

- Create targeted prevention programs for people who are at a higher risk of overdose, such as people experiencing homelessness or middle aged males.
- Increase access to alternative pain management strategies and promote responsible prescribing practices.
- Develop a comprehensive state plan to address the harms of methamphetamine use.
- Further research to identify alternative treatment options for people with stimulant-use disorder.
- Act early: educate youth to prevent substance use and substance use disorder.
- Increase access to substance use treatment options and make options known to people who use drugs. Places with a higher burden of fatal drug overdose—Southeast, TriCounty, Salt Lake and Weber-Morgan health districts—should be prioritized when considering resource allocation.
- Increase the availability of Naloxone and drug test-strips in rural areas and places with a high burden of fatal drug overdose.

Outreach and education

- Include evidence-based health education in schools regarding stimulants and opioids; promote positive coping techniques to deal with psychological pain and adversity.
- Reduce stigma regarding people who struggle with substance use.
- Increase safety for people with substance use disorders by increasing public education about the dangers of polysubstance use.
- Increase awareness of the [harms of methamphetamine use](#) and how to respond to a stimulant overdose.
- Improve community understanding of the benefits of syringe exchange, which include helping individuals connect to treatment, as well as reducing blood-borne illnesses.
- Increase access to, and awareness of, grief support groups for people who have lost someone due to a drug overdose.

Enforcement, prosecution, and sentencing

- Improve the availability and awareness of resources available to law enforcement for connecting people who use drugs to substance-use treatment options.
- Provide law enforcement training on the administration of naloxone and appropriate overdose responses.
- Make law enforcement and first responders aware of [community-based crisis response options](#).
- Expand diversion programs and speciality courts.
- Enhance services for individuals with substance-use disorder involved in the criminal justice system. Services include targeted naloxone distribution, overdose education, and medications for substance use disorder in jails, prisons, and other correctional settings.
- Develop and improve programs to support individuals who are transitioning out of incarceration.

Data and analysis

- Ensure robust and reliable data are available to research partners by sustaining current programs that detect, analyze and report data related to overdose.
- Strengthen data partnerships to allow for a more comprehensive understanding of fatal overdose by combining data from diverse sources across different sectors.
- Improve data sharing processes within and across state agencies to facilitate timely data sharing of important data.
- Continue to invest in data modernization projects to provide faster access to accurate and actionable data, allowing for more informed public health actions.

Data notes

Data sources and calculations

Data in this report is based on available data as of July 15, 2024, from the Utah Medical Examiner Database (UMED). Estimates are based on deaths that happened in Utah, even if the person who died was not a Utah resident.

- Not all deaths were certified when this report was written (about 99.8% of deaths in 2023 have been certified). Counts may change slightly when pending deaths are certified. However, even if the counts change slightly, it will not meaningfully affect the rates.
- Local health district crude rates were calculated by dividing the number of people who died in the health district by population estimates for the health district from the University of Utah Kem C. Gardner Policy Institute, and multiplying by 100,000.
- Confidence intervals were compared to find out if the difference between two rates was statistically significant. The difference is significant if the intervals do not overlap.
- The proportion of overdoses in Figure 2 will not total 100. Most overdoses include more than one substance, and only a select number of drugs are represented.

How drug overdose deaths are defined

Drug poisoning (overdose) deaths were defined as having an International Classification of Diseases, 10th Revision (ICD-10-CM) underlying-cause-of-death code of X40–X44 (unintentional) or Y10–Y14 (undetermined intent). Suicides and homicides from drug overdose were excluded.

→ The immediate cause of death variable (text field) on the death certificate was used to identify drugs without an ICD-10 code (such as methamphetamine and fentanyl).

▷ Opioid prescriptions included any of the following opioids: alfentanil, buprenorphine, butorphanol, codeine, dihydrocodeine, fentanyl, hydrocodone, hydromorphone, levorphanol, loperamide, meperidine, methadone, morphine, nalbuphine, noscapine, oxycodone, oxymorphone, pentazocine, propoxyphene, remifentanil, sufentanil, tapentadol, thebaine, or tramadol.

→ Fentanyl was no longer included in the prescription drug definition starting in 2020.

Limitations

The Utah Office of the Medical Examiner and the Office of Vital Records and Statistics began to collect data on homeless status at time of death in September 2022. That means 2023 is the only complete year of data.

Data from 2021 through 2023 were combined to avoid reporting small numbers of deaths for age, sex, and geography. Deaths fewer than 5 are suppressed and are not used to calculate statistical significance.

Endnotes

- 1 <https://www.cdc.gov/overdose-prevention/about/fentanyl.html>
- 2 <https://dhhs.utah.gov/wp-content/uploads/2024-Utah-Homeless-Mortality-Report.pdf>
- 3 <https://nationalhomeless.org/wp-content/uploads/2017/06/Substance-Abuse-and-Homelessness.pdf>

Appendix

Table 1. Number and rate per 100,000 of overdose death, Utah, 2000-2023

Year	Number of over-dose deaths	Crude rate per 100,000	95% confidence intervals
2000	138	6.1	5.2-7.3
2001	123	5.4	4.5-6.4
2002	178	7.7	6.6-8.9
2003	225	9.5	8.3-10.9
2004	233	9.7	8.5-11.0
2005	298	12.1	10.8-13.6
2006	304	12.0	10.7-13.5
2007	288	11.1	9.8-12.4
2008	321	12.1	10.8-13.4
2009	330	12.1	10.8-13.5
2010	300	10.8	9.6-12.1
2011	348	12.3	11.1-13.7
2012	366	12.8	11.5-14.1
2013	398	13.7	12.4-15.1
2014	510	17.3	15.8-18.8
2015	541	18.0	16.5-19.5
2016	545	17.8	16.3-19.3
2017	544	17.4	16.0-18.9
2018	553	17.4	16.0-18.9
2019	496	15.4	14.0-16.8
2020	531	16.2	14.8-17.5
2021	585	17.5	16.1-18.9
2022	530	15.6	14.3-16.9
2023	606	17.5	16.1-18.9

Table 2. Number and rate per 100,000 of overdose death by local health districts, 2021-2023

Local health district	Number of overdose deaths	Crude rate per 100,000	95% confidence intervals
State of Utah	1721	16.9	16.1-17.7
Bear River	42	6.9	5.0-9.3
Central Utah	37	15.1	10.6-20.8
Davis County	124	11.1	9.2-13.2
Salt Lake County	851	23.5	21.9-25.1
San Juan	**	**	**
Southeast Utah	34	28.1	19.5-39.3
Southwest Utah	126	15.1	12.6-18.0
Summit County	16	12.3	7.1-20.1
Tooele County	36	15.4	10.8-21.4
TriCounty	46	26.8	19.6-35.7
Utah County	202	9.5	8.3-11.0
Wasatch County	**	**	**
Weber-Morgan	198	23.5	20.3-27.0

**Data are suppressed due to small counts.