



State Unintentional Drug Overdose Reporting System South Dakota Data Report

State Unintentional Drug Overdose Reporting System (SUDORS)

SUDORS is a surveillance system developed by the Centers for Disease Control and Prevention (CDC) to collect comprehensive data on unintentional and undetermined overdose deaths. SUDORS aims to enhance state surveillance of drug overdoses to inform the development of prevention efforts across the state with the goal of reducing overdose deaths. This information comes from death certificates, coroner reports, and toxicology reports. The information collected is then de-identified and entered into the National Violent Death Reporting System (NVDRS). South Dakota received funding in 2019 to start collecting SUDORS data, with 2020 being the first full year of SUDORS data collected.

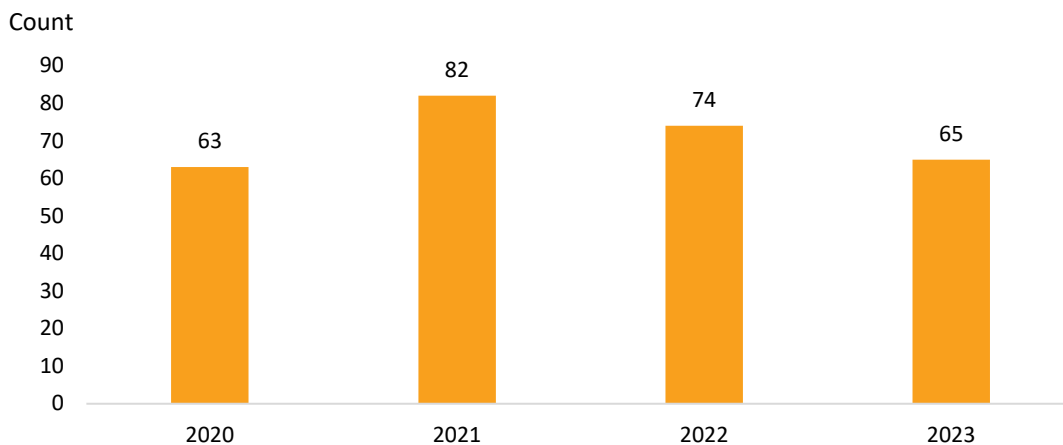
SUDORS Case Inclusion Criteria:

- Presence of any of the following underlying cause-of-death codes: X40-X44 (unintentional drug poisoning) or Y10-Y14 (undetermined intent drug poisoning)
- Acute toxicity must have caused the death (i.e., be the underlying cause of death)
- Substance types include illicit drugs, prescription and over-the-counter drugs, and dietary supplements
- Deaths that occurred in South Dakota, irrespective of residency

Unintentional and Undetermined Overdose Deaths

From 2020 to 2023, there were 284 unintentional and undetermined overdose deaths in South Dakota. There were 65 deaths in 2023, which was a 12% decrease from 74 deaths in 2022.

Figure 1: Unintentional and Undetermined Overdose Deaths by Year, 2020-2023



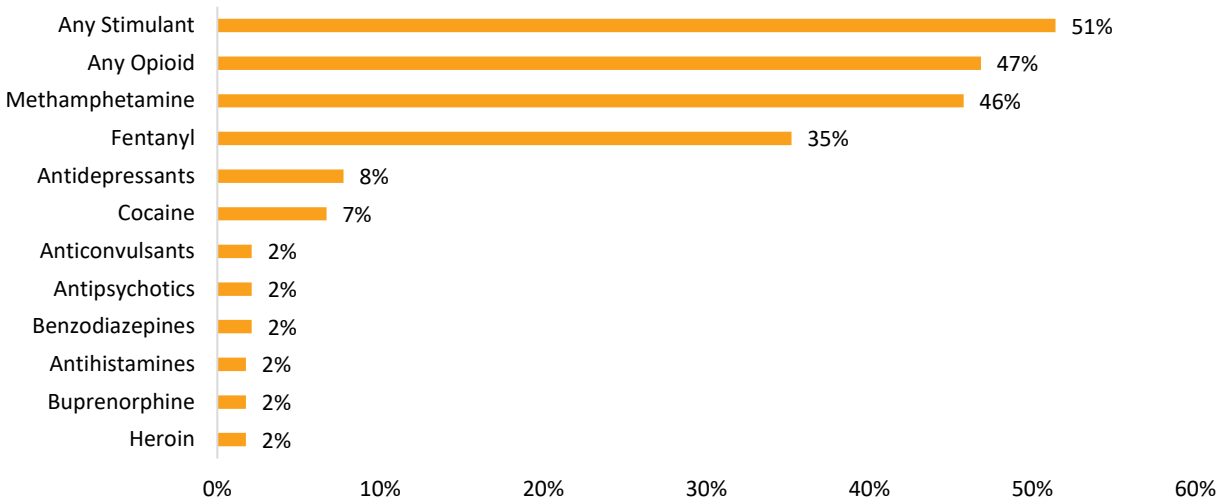
Overdose Death Manner and Type

Of the 284 overdose deaths, 98% were unintentional (accidental) overdoses and 2% were of undetermined intent. Overdose deaths can be further categorized into type of drug poisoning, which provides context on how the drugs contributing to the fatal overdose were used. For example, the decedent may have used the drugs for the feeling they provided and not for medical reasons, accidentally ingested the drug or an excessive dose of the drug, or overdosed while taking the prescribed dosage. The type of overdose isn't always known, but the most common overdose category was overdose related to substance use/misuse at 74%.

Substance(s) Listed as Cause of Death

Substances are listed on the death certificate as being involved with the cause of death. Some deaths may be attributed to more than one substance. Figure 2 represents the percentage of deaths by substance(s) attributed to the cause of death. From 2020-2023, the largest proportion of deaths involved a stimulant (51%), followed by an opioid (47%).

Figure 2: Top Substance(s) Listed as Cause of Death, 2020-2023



Opioid and Stimulant Overdoses

Opioids and stimulants account for the largest proportion of overdose deaths in South Dakota. During all four years, methamphetamine was the most common stimulant and fentanyl was the most common opioid involved in unintentional and undetermined overdose deaths. (Note: semisynthetic opioids include oxycodone, hydrocodone, hydromorphone, and oxymorphone)

Figure 3: Deaths by Substance(s) Listed as Cause of Death

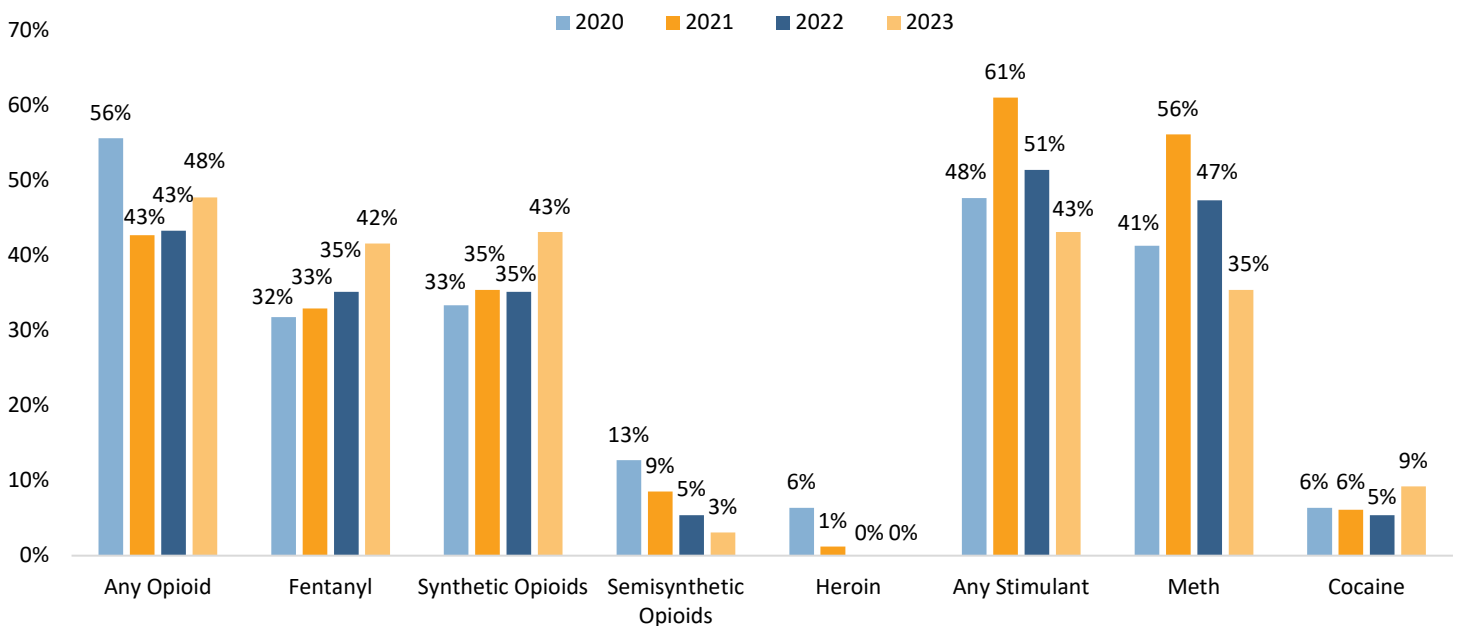
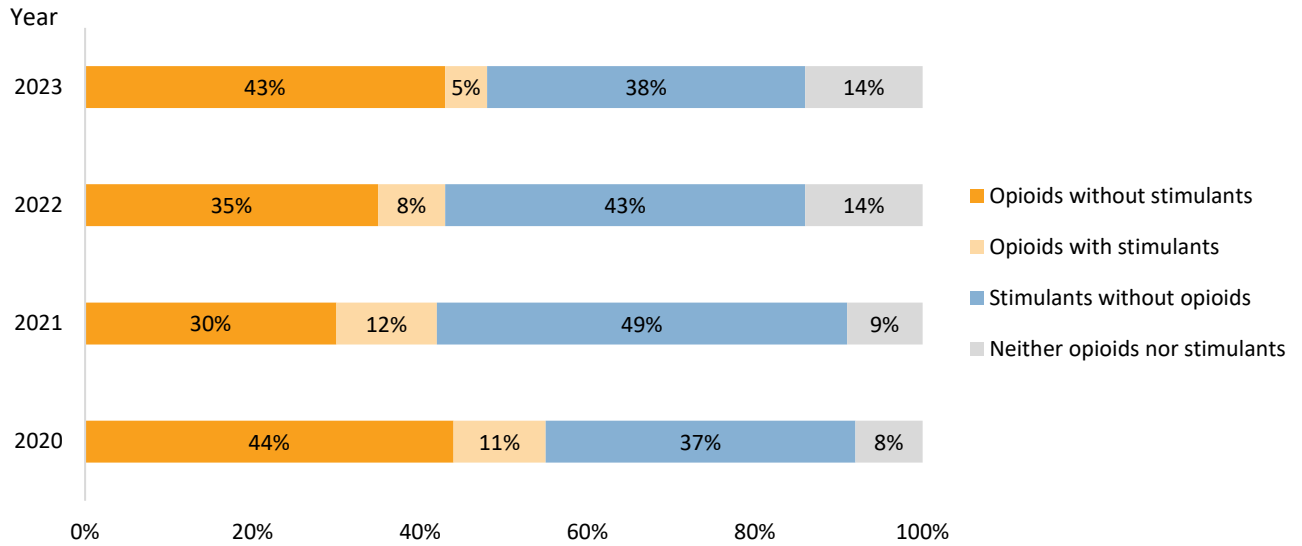


Figure 4 shows the different combinations of opioid and stimulant involvement in deaths. In 2023, the largest proportion of deaths were related to opioids without any stimulants (43%), followed by stimulants without any opioids (38%). During 2022 and 2021, stimulants without any opioids made up the largest proportion of deaths. During 2020, opioids without any stimulants made up the largest proportion of deaths.

Figure 4: Deaths by Opioid and Stimulant Involvement



SUDORS Demographics

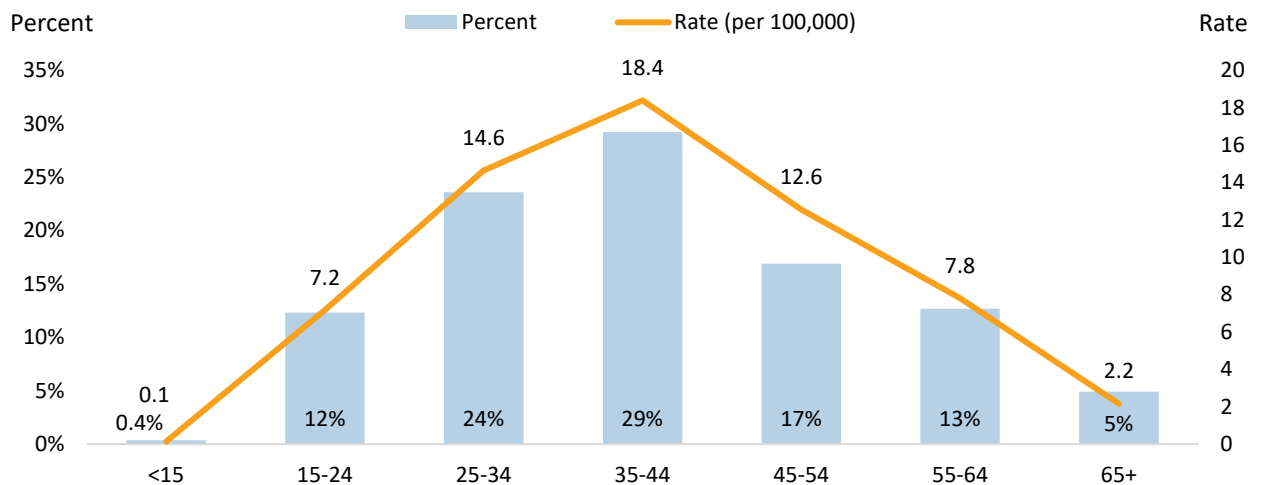
Sex

Overall, males made up the largest proportion of unintentional and undetermined overdose deaths compared to females. From 2020-2023, males made up 60% of overdose deaths and had a rate of 9.2 deaths per 100,000. Females made up 40% of overdose deaths and had a rate of 6.5 deaths per 100,000.

Age

Overdoses impact individuals across all age groups. Adults aged 35 to 44 years were at the highest risk for unintentional and undetermined overdose deaths compared to all other ages (Figure 5).

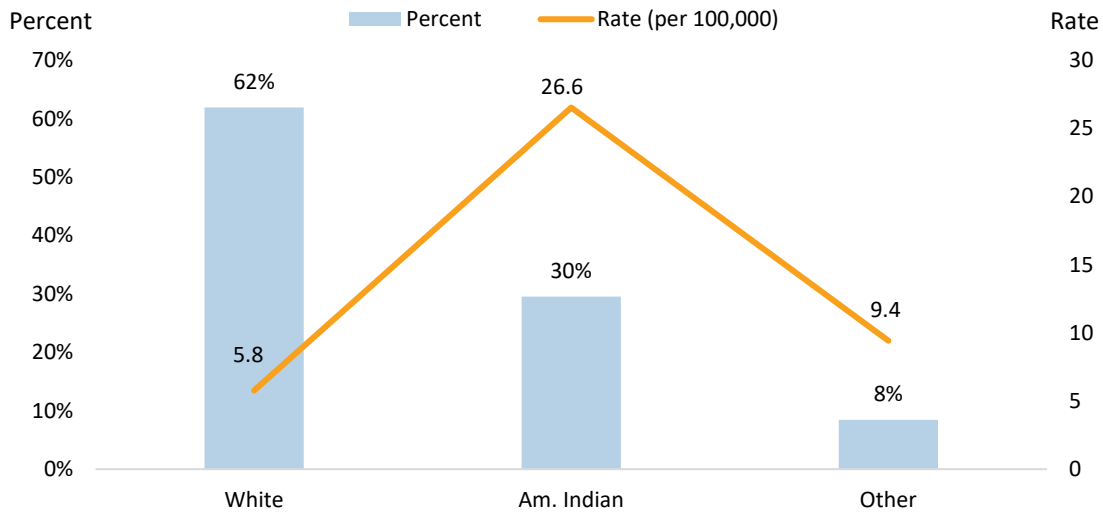
Figure 5: Unintentional and Undetermined Overdose Deaths by Age Group, 2020-2023



Race

From 2020-2023, 62% of unintentional and undetermined overdose deaths were White, 30% were American Indian, and 8% Other (Black, Asian, or unknown). American Indians died of overdose deaths at a rate 4.6 times higher than Whites (26.6 vs. 5.8 per 100,000) (Figure 6).

Figure 6: Unintentional and Undetermined Overdose Deaths by Race, 2020-2023



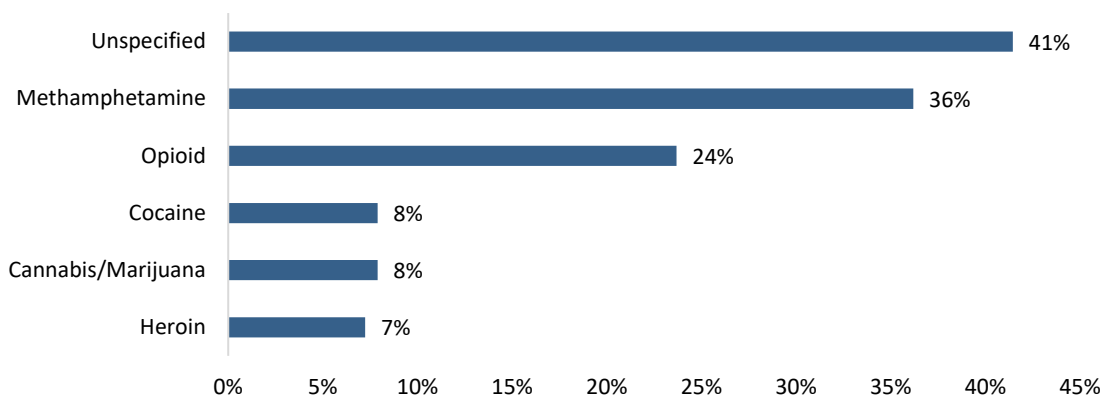
Overdose Death Circumstances

This section includes the circumstances surrounding overdose deaths documented in coroner reports. Persons who died by overdose may have had multiple circumstances, and it was possible that other circumstances could have been present and not diagnosed, known, or reported.

Substance Use History

Based on information in the coroner report, 54% of overdose decedents had a known substance use history. Of the deaths with a known substance use history (N=152), 41% had a history of an unspecified substance use, 36% had a history of methamphetamine use, and 24% had a history of opioid use. Unspecified substance use history indicates they had a known substance use/drug use history, but no specific substance/drug was reported. An individual could have a substance use history for multiple types of drugs.

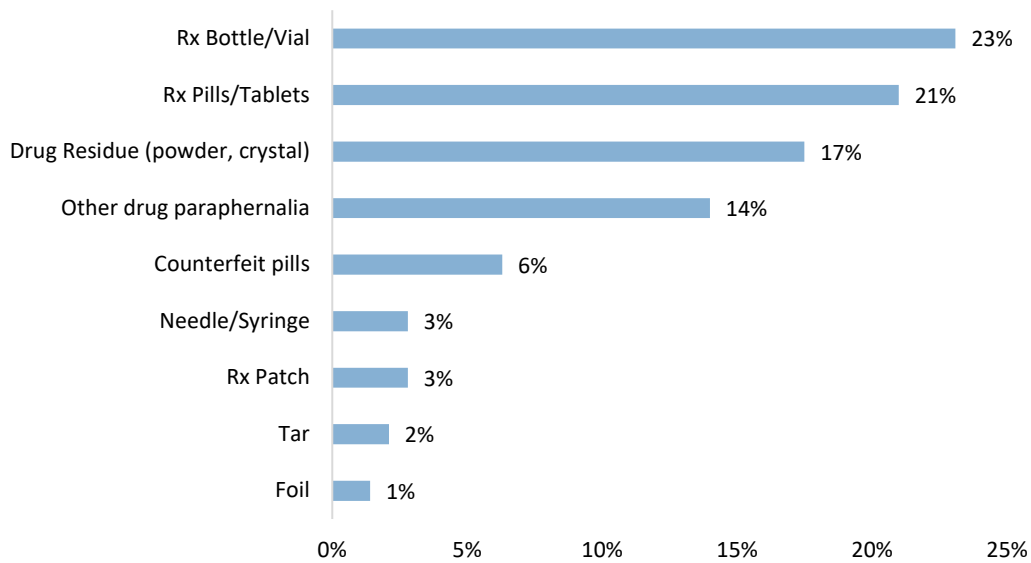
Figure 7: Substance Use History by Type of Substance, 2020-2023



Evidence of Drug Use

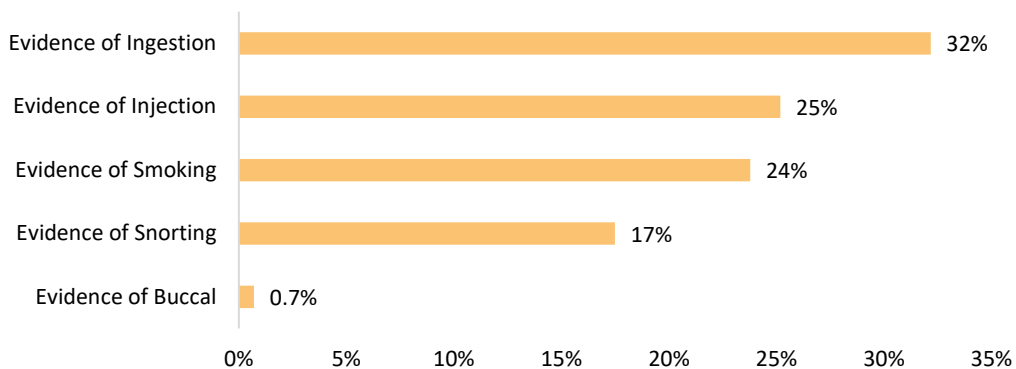
Based on witness or scene evidence, 50% of cases had any evidence of drug use. Evidence collected from the scene of the fatal overdose can help describe how rapidly an overdose occurred, the route of substance administration, and whether the substance was prescription or illicit. Of the cases with evidence of drug use (N=143), 45% had evidence of illicit drug use and 41% had evidence of prescription drug use. Evidence of illicit drugs can include witness report, counterfeit pills, substance (powder, crystal, tar), and other drug paraphernalia. Evidence of prescription drugs can include witness report, prescription (Rx) bottle, pills/tablets, and patch. The figure below shows the type of evidence that is most commonly reported. Please note that multiple types of evidence can be found at a scene.

Figure 8: Type of Scene Evidence, 2020-2023



Route of drug administration can include injection, snorting/sniffing, smoking, transdermal, ingestion, suppository, sublingual, and buccal. The graph below shows the most common routes of drug administration among the 143 decedents that had any evidence of drug use. It is important to note that these categories are not mutually exclusive in that multiple forms of evidence can be present, so decedents could have used multiple routes of administration.

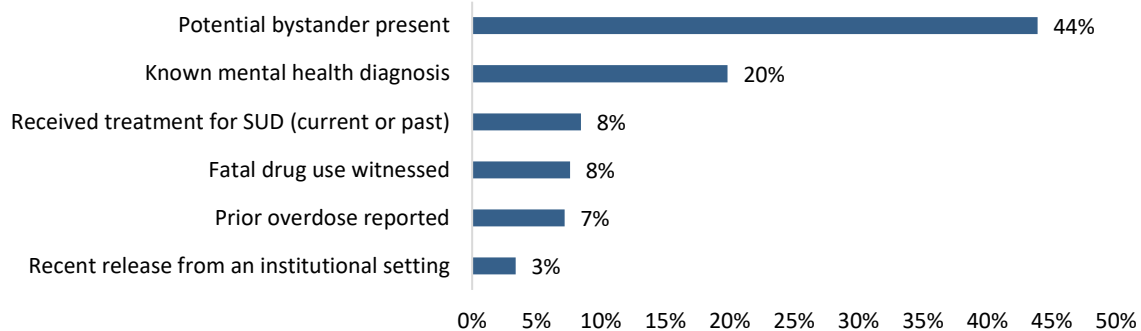
Figure 9: Route of Administration, 2020-2023



Opportunity for Intervention

Certain circumstances could indicate that there was an opportunity for intervention. Of the deaths with a coroner report available (N=237), 62% had at least one potential opportunity for intervention. Opportunity for intervention includes having a potential bystander present during or preceding the overdose, a known mental health diagnosis, ever received treatment for substance use disorder (SUD), the fatal drug use was witnessed, a prior overdose event was reported, and a recent release from an institutional setting (jail/prison, detention facility, hospital). A potential bystander was present in 44% of these deaths, indicating there may have been an opportunity to provide life-saving actions at the time of the overdose. Figure 10 shows the percentage of deaths that had a circumstance that might have provided an opportunity for intervention.

Figure 10: Overdose Deaths by Circumstances, 2020-2023

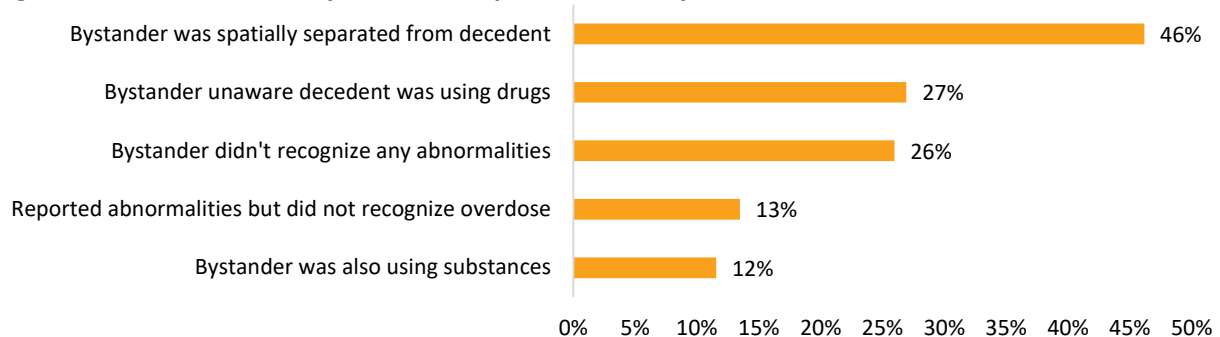


Bystander Response

A bystander, or bystanders, could be present during or shortly preceding an overdose. Of the 284 SUDORS cases, 37% had a known bystander present (based on coroner reports). The largest proportion of bystanders were a partner or ex-partner (32%). Other bystanders included friend/roommate (30%), family (26%), and other/unknown types of bystanders (20%).

A bystander response to an overdose could include calling 911, performing CPR, and transporting to medical care. Sometimes bystander response can be delayed, or no lifesaving responses were made. There could be multiple reasons for no response or a delayed response, including the bystander being spatially separated from the decedent, bystander was unaware the decedent was using drugs, bystander didn't recognize any abnormalities from the decedent, the bystander reported abnormalities but did not recognize the abnormalities as an overdose, and the bystander was also using substances. Understanding the reason behind a delayed or no response to an overdose provides an opportunity for education on overdose symptoms.

Figure 11: Reasons for Delayed or No Response from a Bystander, 2020-2023



Location of Injury and Death

During 2020-2023, most unintentional and undetermined overdoses occurred in a house/apartment (78%). Other places where overdoses occurred include hotel/motel (5%), street/highway/sidewalk (4%), facilities (hospital, jail, shelters) (4%), natural areas (field, river, woods) (2%), and other/unknown areas (7%). When it comes to location of death, 57% of the deaths occurred in a house/apartment, 24% occurred at the emergency department/hospital, and 18% occurred in another location. This indicates that less than a quarter of decedents are transported to the emergency department/hospital for care before being pronounced deceased.

Overdose Prevention

Substance use disorder is a treatable disease. For people, or loved ones, struggling with addiction, visit the Let's Be Clear website (<https://letsbeclearsd.com/>) to view available resources and learn more about substance use disorders.



Conclusion and Acknowledgements

The data in this report represents information about unintentional and undetermined overdose deaths that occurred in South Dakota, which were collected through the State Unintentional Drug Overdose Reporting System (SUDORS). Data presented in this report may differ from other reports due to when the data was pulled and how the data was analyzed. This report does not provide a complete description of every single factor that could have led to a person's death due to drug overdose. The purpose of collecting and presenting this data is to increase knowledge around overdose deaths and to support prevention programs by identifying potential opportunities to intervene and prevent overdoses. The contents of this report were solely the responsibility of the authors and does not necessarily represent the official views of the Centers for Disease Control and Prevention.

Thanks to our partners and contributing staff for making this work possible.