

State Unintentional Drug Overdose Reporting System (SUDORS)

The Drug Overdose Epidemic Continues to Worsen in the United States

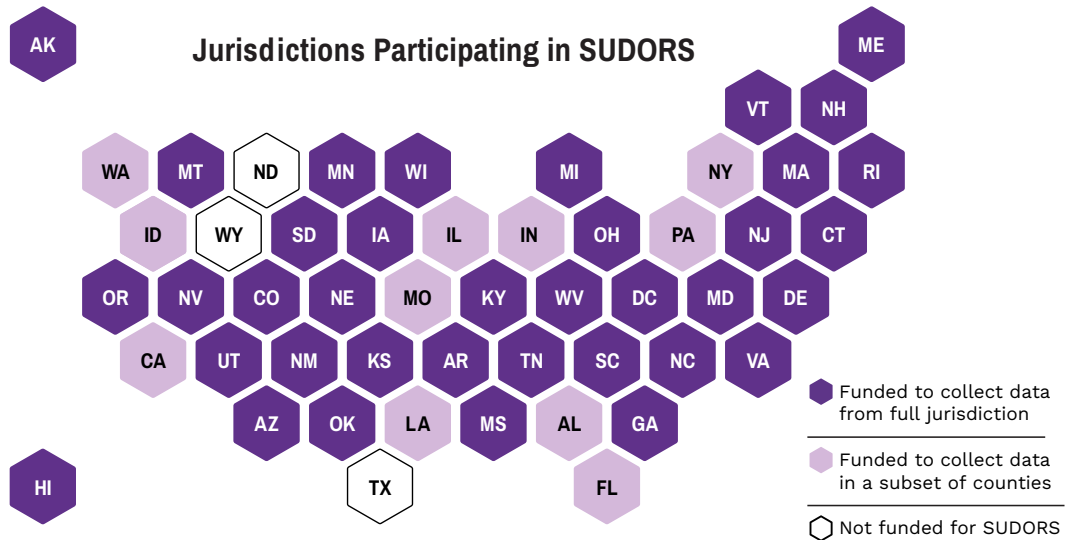
Drug overdose deaths continue to impact our nation and remain a leading cause of injury-related death in the United States. The majority of overdose deaths involve opioids. Deaths involving synthetic opioids (largely illicitly made fentanyl) and stimulants (such as cocaine and methamphetamine) have increased in recent years. In addition, overdose deaths have accelerated during the COVID-19 pandemic. As the worsening and expanding drug overdose epidemic in the United States involves potent synthetic opioids, often in combination with other drugs, timely and comprehensive surveillance and evidence-based prevention and response strategies remain essential.

SUDORS Provides Comprehensive Information on Drug Overdose Deaths

In 2016, the **State Unintentional Drug Overdose Reporting System (SUDORS)** began as part of CDC's [Enhanced State Opioid Overdose Surveillance \(ESOOS\)](#) program, to provide comprehensive data on **opioid overdose deaths**. In 2019, SUDORS expanded to collect data on **all drug overdose deaths in 47 states and the District of Columbia** as part of CDC's [Overdose Data to Action \(OD2A\)](#) program. Each of these 48 funded jurisdictions collects and abstracts data for unintentional and undetermined intent drug overdose deaths from **death certificates and medical examiner/coroner reports (including scene findings, autopsy reports, and full postmortem toxicology findings)** for entry into a web-based CDC platform that is shared with the National Violent Death Reporting System ([NVDRS](#)).

The overall goals of SUDORS are to:

1. **Better understand the circumstances** that surround overdose deaths.
2. Improve overdose data **timeliness and accuracy**.
3. Identify specific substances causing or contributing to overdose deaths as well as emerging and polysubstance overdose trends to help **inform overdose prevention and response efforts**.



SUDORS Incorporates Multiple Data Sources

Jurisdictions abstract data from death certificates, medical examiner/coroner reports, and postmortem toxicology results into SUDORS. Combined, these sources yield more than 600 data elements. Examples of data elements captured from each source are:



Death Certificates

- Demographics
- County and state where overdose occurred
- Cause and manner of death
- Other significant conditions contributing to death
- How overdose occurred
- Place of death (e.g., hospital, home)
- Date of death



Medical Examiner/Coroner Reports

- History of prior overdoses
- Treatment for substance use disorder
- Prescription drug misuse or illicit drug use history
- Routes of drug administration (e.g., injection, smoking)
- Presence of bystanders
- Naloxone administration



Postmortem Toxicology

- All drugs detected
- Drugs contributing to death
- Date specimens were collected

SUDORS Data Are Unique



Multiple methods are used to identify drug overdose deaths.

Jurisdictions can use relevant **ICD-10 cause of death codes** (X40–X44 and Y10–Y14), scans of the **text-based cause of death information**, and reviews of **medical examiner/coroner reports** to identify unintentional and undetermined intent drug overdose deaths.



SUDORS includes data on the drugs that caused death as well as additional drugs detected.

The comprehensive postmortem toxicology information in SUDORS offers a more thorough picture of **what drugs were being used** at the time of death, and of **polysubstance use**, than is available elsewhere.



SUDORS data can capture newly emerging drugs.

SUDORS captures information on **specific drugs** rather than just drug classes (for example, methamphetamine rather than psychostimulants with abuse potential). Additionally, the SUDORS system is **flexible, allowing for new drugs to be added in real-time** as SUDORS staff identify them on toxicology reports. Together, these capabilities mean that SUDORS data can quickly capture newly emerging drugs.



Data on circumstances and scene evidence provide the context surrounding the overdose death.

SUDORS data go beyond toxicology and demographics to provide a look into the **life of the decedent** (for example, medical history, substance use disorder treatment history, and criminal justice involvement) and describe **how the overdose death occurred**.



SUDORS narratives provide the **who, what, where, when, and why of the overdose death**.

SUDORS staff write a **complete description for each overdose death detailing all components** (such as cause of death, circumstances, and toxicology) in one place. These narratives provide additional context for understanding the overdose and supporting information on circumstances captured within the system (for example, indication of “previous drug overdose” in the system, and the narrative provides context about the timing of the previous overdose, drug(s) involved, and any treatment received). These narratives lend themselves to in-depth qualitative analyses of the context and circumstances of overdose deaths, which can inform prevention efforts.

SUDORS Data Can Be Used for Action



SUDORS data lend themselves to multiple different types of analyses because of the richness of the data and the different types of information that are collected.

For example, analyses might focus on **trends** in deaths involving specific drugs over time, comparison of **circumstances surrounding overdoses** between time periods or across decedent demographics, or **qualitative assessments of overdose** context using incident narrative text data. As a result, SUDORS data can be used for action in the following ways:

Educating partners about location-specific circumstances and risk factors.

Alerting health providers, public health professionals, medical examiner and coroner offices, and other partners of newly emerging drug threats.

Informing drug overdose prevention and response planning and strategies using toxicology and circumstance data.

Evaluating the impact of overdose prevention and response efforts.

State and local jurisdictions are increasingly better informed by systems like SUDORS, which presents comprehensive information on the characteristics and circumstances surrounding drug overdose deaths to inform prevention and response efforts. [Find CDC-published reports on how SUDORS data have been used for action on the CDC Drug Overdose MMWR Articles Webpage](#) and [Journal Articles Webpage](#).