

South Carolina Drug Overdose Deaths

**Annual State Unintentional Drug Overdose
Reporting System Data Report, January-
December 2022**



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INTRODUCTION

Although the rate of drug overdose deaths in the United States stabilized between 2021 and 2022, the number of drug overdose deaths in South Carolina continued to increase.^{1,2} The United States Centers for Disease Control and Prevention (CDC) established the State Unintentional Drug Overdose Reporting System (SUDORS) to monitor trends and circumstances of unintentional and undetermined intent drug overdose deaths at the state and national level. The CDC and other stakeholders use SUDORS data to help guide and support overdose prevention efforts. Currently funded through the CDC Overdose Data-to-Action (OD2A) grant, the South Carolina Department of Public Health (DPH) began collecting and entering drug overdose death data into SUDORS in 2021 for deaths occurring on or after July 2020. This report contains data collected by DPH on drug overdose deaths that occurred from January to December 2022.

METHODS

Data contained in this report was collected for SUDORS by DPH. Data was abstracted from death certificates (DC) and, when available, postmortem toxicology, and/or coroner/medical examiner (CME) reports. The CME report summarizes the death investigation and may contain copies of the autopsy, emergency medical services (EMS) report, other medical records, or the law enforcement report. Together, these reports document known circumstances precipitating a decedent's fatal drug use and the life-saving interventions attempted after the onset of overdose.

Eligibility for inclusion into SUDORS was limited to fatal drug overdoses where the intent was deemed unintentional or could not be determined on either the DC or CME report. Additional cases were identified from DC underlying cause of death International Classification of Disease, 10th Revision (ICD-10) codes (X40-X44 and Y10- Y14) for unintentional and undetermined intent drug overdose deaths. Deaths in this report occurred in South Carolina between January and December 2022 and were included in the results irrespective of the decedent's state of residency.

Analyses were performed using SAS Version 9.4 (SAS Institute Inc). Demographic and cause of death data are presented as counts and percentages of the total number of South Carolina overdose deaths in the SUDORS system. Data related to the type of drug overdose, scene evidence of drug use, presence of potential bystanders, decedent medical

¹ Spencer MR, Garnett, MF, Minino AM. Drug overdose deaths in the United States, 2002-2022. NCHS Data Brief, no 491. Hyattsville, MD: National Center for Health Statistics. 2024. DOI: <https://dx.doi.org/10.15620/cdc:135849>

² South Carolina Department of Health and Environmental Control. (2024). Drug overdose deaths: South Carolina, 2022. Retrieved from <https://scdhec.gov/sites/default/files/media/document/Drug-Overdose-Report-2022.pdf>.

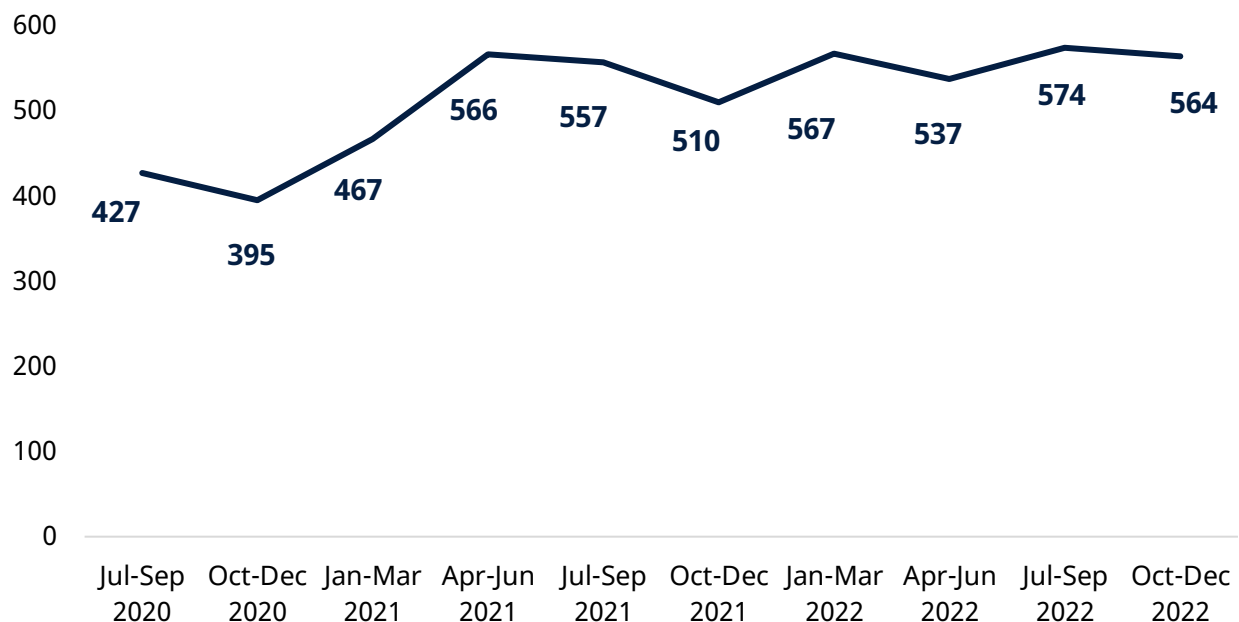
history, drug use history, contributing circumstances, and other social risk factors are presented as counts and percentages of the total number of South Carolina deaths with data abstracted from CME reports into the SUDORS system.

RESULTS

During 2022, there were 2,242 unintentional or undetermined intent overdose deaths in SC. Among these were 1,839 unintentional opioid overdoses (82.0%), 396 unintentional non-opioid overdoses (17.7%), and seven opioid or non-opioid involved undetermined intent deaths (0.3%). Nine multi-decedent incidents of unintentional drug overdose included two decedents who either fatally overdosed within 24 hours of each other in the same location or one fatal overdose directly contributed to the fatal overdose of the other decedent (e.g., second decedent used excessive amounts of drugs due to being upset about the death of first decedent). Data from DCs were available for 99.8% of decedents. Data from CME reports were available for 72.6% of decedents. The number of drug overdose deaths in South Carolina increased by 32.1% from 427 deaths in July 2020 to 564 deaths in December 2022. The number of deaths increased quarter over quarter except in the fourth quarter of 2020, the fourth quarter of 2021, and the second quarter of 2022. Each of these quarters had a fewer number of deaths than the preceding quarter (Fig. 1).

12 MONTHS
2,242 Fatal Drug Overdoses
in South Carolina

Figure 1. Drug Overdose Deaths in SC, by Quarter
Count



I. Data from Death Certificates

Overdose Locations

Of 2,242 overdose deaths in South Carolina in 2022, the state where the decedent initially overdosed was unknown for 14 decedents, among whom 12 decedents died in a South Carolina hospital or Emergency Department/outpatient facility.

Region and County of Overdose

Overdose deaths occurred in every region of South Carolina and in 45 of 46 counties. McCormick County was the only county with no fatal overdoses in 2022 (Fig. 2). Nearly one-third of deaths occurred in three South Carolina counties: Greenville (12.4%), Horry (10.4%), and Charleston (8.8%) (Table 1).

45 of 46

South Carolina Counties Had at Least One Fatal Overdose

Figure 2. Fatal Overdoses in South Carolina, by County, 2022
Count

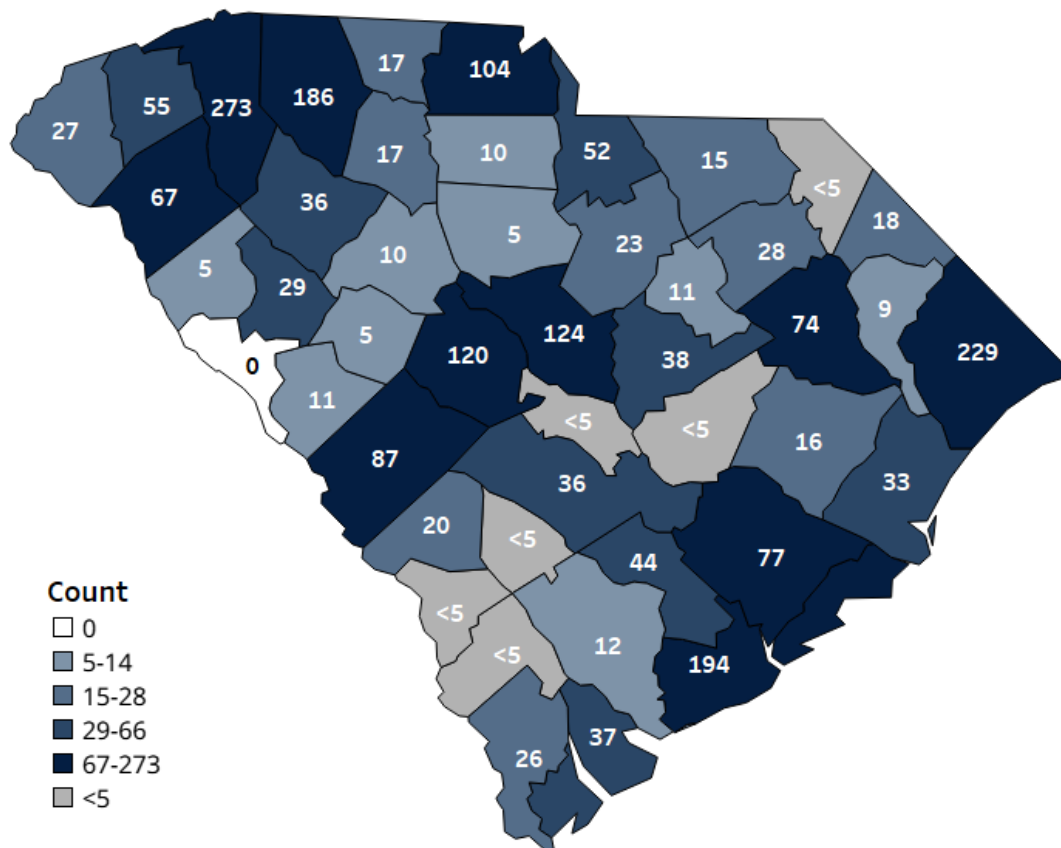


Table 1. Ten SC Counties with the Most Fatal Drug Overdoses, SC, 2022

Rank	SC County of Overdose	No.	%
1	Greenville	273	12.4%
2	Horry	229	10.4%
3	Charleston	194	8.8%
4	Spartanburg	186	8.5%
5	Richland	124	5.6%
6	Lexington	120	5.5%
7	York	104	4.7%
8	Aiken	87	4.0%
9	Berkeley	77	3.5%
10	Florence	74	3.4%

Note: Among decedents with a known county of death (n=2,199).

Place of Overdose

Overdose location was unknown for 229 decedents and was missing for eight decedents. Among decedents with location data available, 1,593 decedents overdosed at a house or apartment, 189 overdosed at a hotel/motel, and 49 overdosed inside a motor vehicle, which includes motor homes (e.g., campers, trailers) but excludes school buses and public transportation (Table 2).

Table 2. Ten Most Frequent Overdose Locations, SC, 2022

Rank	SC County of Overdose	No.	%
1	House or apartment	1,593	79.5%
2	Hotel/motel	189	9.4%
3	Inside a motor vehicle	49	2.4%
4	Other location type	32	1.6%
5	Natural area	29	1.5%
6	Jail, prison, detention facility	24	1.2%
7	Other commercial establishment	17	0.9%
8	Supervised residential facility	15	0.8%
9	Street/road, sidewalk, alley	13	0.7%
10	Parking lot/public parking garage	13	0.7%

Note: Among decedents with known location type (n=2,005).

Demographics

Age Group

Drug overdose deaths occurred most often among adults ages 35 to 44 and least often among adults ages 65 or older and youth under 25 years of age (Table 3). Decedents ranged in age from three days to 91 years.

South Carolina Drug Overdose Deaths among all age groups
Infants and Youth, Adults and Older Adults

Table 3. Drug Overdose Deaths by Age Group, SC, 2022

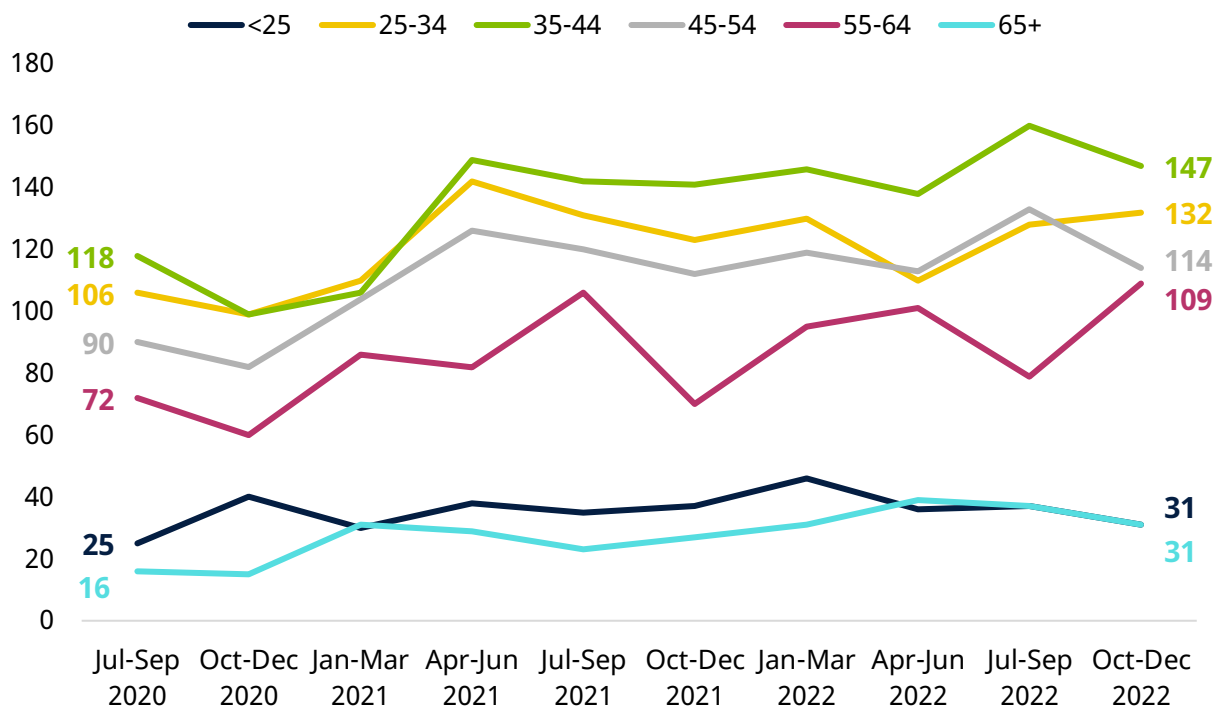
Age Group (in years)	No.	%
< 25	150	6.7%
25 to 34	500	22.3%
35 to 44	591	26.4%
45 to 54	479	21.4%
55 to 64	384	17.1%
65+	138	6.2%

Note: Among all decedents (n=2,242).

Trends by Age Group, by Quarter

Drug overdose deaths in South Carolina increased among all age groups between July 2020 and December 2022. Adults ages 35 to 44 and 25 to 34 experienced the most drug overdose deaths compared to all age groups. The largest percent increase (93.8%) was among older adults aged 65 or older (Fig. 3).

Figure 3. Drug Overdose Deaths, by Age Group and Quarter Count



Sex, Race, and Ethnicity

Unintentional drug overdose fatalities were noted predominantly among non-Hispanic White males (48.5%) and non-Hispanic White females (25.1%). Race/ethnicity was unknown for 10 decedents (Table 4). From 2021-2022, increases were noted among all race/ethnicities except non-Hispanic American Indian or Alaska Native, which experienced a slight decrease of 9.1% (11 to 10 decedents). Percent increase was greatest among decedents of unknown race/ethnicity (66.7%) and among Hispanic (62.8%) and non-Hispanic Black (20.0%) decedents.

Table 4. Race and Ethnicity of Drug Overdose Decedents, by Sex, SC, 2022

Race-Ethnicity	Male		Female	
	No.	%	No.	%
White, non-Hispanic	1,087	48.5%	563	25.1%
Black, non-Hispanic	359	16.0%	134	6.0%
American Indian or Alaska Native, non-Hispanic	10	0.4%	< 5	-
Asian, non-Hispanic	< 5	-	< 5	-
Native Hawaiian/Other Pacific Islander, non-Hispanic	< 5	-	< 5	-
Multiracial non-Hispanic	< 5	-	< 5	-
Hispanic	57	2.5%	13	0.6%
Unknown race	6	0.3%	< 5	-
Total	1,523	68.0%	718	32.0%

Note: Among all decedents (n=2,242). Race-ethnicity is missing for 1 decedent. Counts between 1-4 are suppressed and shown as "<5" with corresponding percentages shown as "-" to protect decedent confidentiality.

Military Service

Of 2,242 drug overdose decedents in South Carolina in 2022, 7.0% had a reported history of current or past service in the United States Armed Forces. Military service history was unknown for 25 decedents (Table 5). In 2022, South Carolina ranked 8th in the nation for the number of military retirees and 10th in the nation for the density of service members residing within the state.³ As of 2021, 8.9% of South Carolina's adult population were veterans.

³ Von Nessen, J. C. (2022). The 2022 Economic Impact of South Carolina's Military Community. Retrieved from. <https://scdva.sc.gov/sites/scdva/files/Documents/SC%20task%20force/Economic%20Impact%20Final%20June%202022.pdf>

Table 5. History of Military Service (as reported on the death certificate), SC, 2022

Military Service	No.	%
No evidence of service	2,060	91.9%
Current or past service	157	7.0%
Unknown if ever served	25	1.1%

Note: Among all decedents (n=2,242).

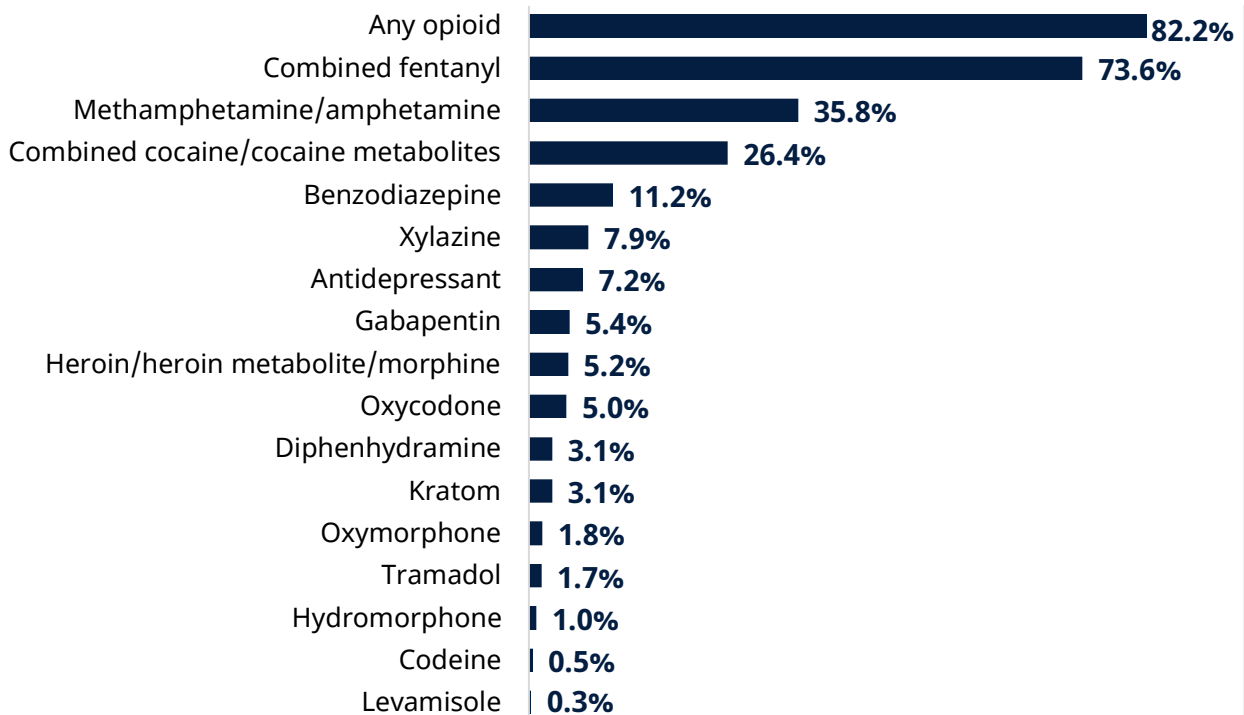
Cause of Death Substances

Among fatal overdoses, cause of death was documented on the DC and may include one or more substances. The top five substances involved in drug overdose deaths in South Carolina were fentanyl, including fentanyl analogues and metabolites (73.6%); methamphetamine/amphetamine (35.8%); cocaine/cocaine metabolites (26.4%); benzodiazepines (11.2%); and xylazine (7.9%) (Fig. 4).

Opioids were the most identified substance class causing death and contributed to 82.2% of the 2,242 fatal overdoses in South Carolina (Fig. 4). Deaths due to any opioid had at least one opioid listed as a cause of death and included overdose deaths involving illegally manufactured fentanyl, heroin, prescription opioids, or any other opioid.

Figure 4. Substance Identified as Cause of Death

Substance



Note: Cause of death can include one or more substances. "Any opioids" category includes illegally-made fentanyl's, heroin, prescription opioids, and any other opioids involved in overdose deaths. "Combined fentanyl" includes fentanyl, fentanyl analogues, and metabolites. Benzodiazepines includes both prescription benzodiazepines (e.g., alprazolam) and illegal benzodiazepines (e.g., etizolam).

II. Coroner/Medical Examiner Reports: Circumstance and Scene Data

Data from coroner/medical examiner (CME) reports were available for 1,628 decedents, representing 72.6% of unintentional and undetermined intent drug overdose deaths in South Carolina from January to December 2022. CME reports include summaries of the case investigation, scene description, autopsy, and postmortem toxicology results. Case investigations seek to identify intent of drug use, route of drug administration, presence of potential bystanders, and interventions by first responders and laypersons on scene.

CME reports provide details about circumstances surrounding drug overdose deaths and often include descriptions of the social, medical, and criminal justice history of decedents. These and other pertinent data are entered into multiple modules throughout the SUDORS database and include a broad overview of the decedent's behavioral and physical health status, history of medical conditions, pain treatments, involvement with the criminal justice system, recent institutional admission or release, housing instability or homelessness, and other relationship and life stressors.

A data collection tool within SUDORS, the Overdose (or OD) Module, collects data on the events preceding, during, and following fatal overdoses. Data in this module includes the type of substance misuse, history of substance use treatment, the presence of known elevated risk factors for fatal overdose, potentially missed opportunities for overdose prevention, and the response by first responders and laypersons after onset of symptoms.

This annual SUDORS report describes the circumstance and scene data gathered from CME reports to inform community members and decision-makers about potential factors contributing to the current trends in fatal overdoses in South Carolina. The aim of this report is to help prevent additional overdose deaths in the future.

*Coroner/Medical Examiner Data Was Available for
1,628 Decedents
Nearly 3/4 of Drug Overdose Decedents*

Risk Factors: Life Stressors, Behavioral Health Problems, and Patterns of Use

Maladaptive attempts to cope with stressful life events, mental health issues, pain, or other health problems may lead to problematic substance use or misuse among some decedents. Risky patterns of use, including the concurrent use of multiple substances and abstinence followed by a relapse in opioid or other drug use, may also increase the risk of fatal drug overdose.⁴

⁴ Compton, W. M., Valentino, R. J., & DuPont, R. L. (2021). Polysubstance use in the US opioid crisis. *Molecular Psychiatry*, 26(1), 41-50.

History of Involvement with Criminal Justice System

Among 1,628 decedents with available CME reports, 84 (5.2%) had evidence of being involved with the criminal justice system as a perpetrator for a drug or non-drug related reason at any time during their lifespan.

Recent Return to Opioid Use

People who return to opioid use following a period of abstinence, including recent incarcerations or institutional stays lasting one week or more, may be at increased risk of a fatal overdose due to lowered tolerance levels.^{5,6} Among 1,628 decedents with available CME reports, 71 (4.4%) had a recent return to opioid use. Among those 71 decedents, 34 (47.9%) returned to opioid use less than two weeks prior to death and 16 (22.5%) returned to opioid use between two weeks and three months of fatal overdose. Return to opioid use was noted for 21 (29.6%) decedents for whom timing of return to use was unknown.

Life Stressors and Behavioral Health Circumstances

Among decedents with an available CME report, 1,488 (91.4%) had evidence of at least one contributing circumstance. In South Carolina, behavioral health concerns were the leading circumstances preceding fatal drug overdose. Nearly 9 in 10 decedents had a substance misuse problem not related to alcohol, and over one in five decedents had a known mental health problem (Table 6). Life stressors included current depressed mood, arguments, family relationship problems, and problems with intimate partners. Decedents may have received behavioral health treatment for a mental health problem, substance use problem, or both. Among decedents with a known substance misuse problem, 5.5% were in treatment for their substance use disorder at the time of fatal overdose and 7.0% were treated in the past (Table 6).

⁵ Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. D. (2007). Release from prison—a high risk of death for former inmates. *New England Journal of Medicine*, 356(2), 157-165.

⁶ Shabbar I. Ranapurwala et al. (2018). Opioid Overdose Mortality Among Former North Carolina Inmates: 2000–2015. *American Journal of Public Health*, 108 (9), 1207-1213.

Table 6. Top Life Stressors/Circumstances Precipitating Drug Overdose Death, SC, 2022

Circumstance/Life Stressor	No.	%
Life Stressors or Behavioral Health Problems		
Substance misuse problem (<i>excluding alcohol</i>)	1,310	88.0%
Mental health problem, current	330	22.2%
Alcohol problem	218	14.7%
Depressed mood, current	37	2.5%
Argument	23	1.5%
Family relationship problem	18	1.2%
Intimate partner problem	13	0.9%
Behavioral Health Treatment (<i>for mental health or substance use</i>) ^a		
Ever treated	280	18.8%
Current treatment	153	10.3%
Treatment for Substance Use Disorder ^b		
No evidence of treatment	1,146	87.5%
Current treatment	72	5.5%
No current treatment, but treated in past	92	7.0%

Note: Among decedents with an available CME report and at least one known circumstance (n=1,488).

Decedents may have evidence of more than one circumstance. Percentages may not total to 100%.

^aDecedents may have received behavioral health treatment for a mental health problem, a substance use disorder, or both. ^bAmong decedents with evidence of a substance use disorder who received substance use treatment (n=1,310).

Medical History and Pain Treatment

SUDORS collects data on history of pain treatment and other select medical conditions commonly associated with onset of opioid use or with overdose fatality. Of the 1,628 decedents with available CME data, 774 (47.5%) had at least one of the select medical conditions and 78 (4.8%) had evidence of being treated for pain at the time of fatal overdose. Heart disease, breathing problems (excluding COPD), obesity, other pain, and COPD were the five most common medical conditions (Table 7). Nearly half (47.4%) of decedents receiving pain treatment were treated for chronic pain (Table 8).

Top 5 Medical Conditions

1. Heart disease
2. Breathing problems (*excluding COPD*)
3. Obesity
4. Other pain
5. COPD

Table 7. Select Medical Conditions Among Decedents of Drug Overdose, SC, 2022

Medical Condition	No.	%
Heart disease	455	55.0%
Other breathing problem (e.g., pneumonia, bronchitis)	206	24.9%
Obesity	158	19.1%
Other pain	153	18.5%
COPD	90	10.9%
Injury	56	6.8%
Back pain	48	5.8%
Asthma	46	5.6%
Hepatitis C	45	5.4%
Sleep apnea	30	3.6%
HIV/AIDS	21	2.5%
Migraine	6	0.7%

Note: Among decedents with an available CME report and evidence of at least one of the selected medical conditions (n=774). Decedents may have more than one medical condition. Percentages may not total to 100%.

Table 8. History of Pain Treatment, by Pain Type, SC, 2022

Type of Pain Treated	No.	%
Chronic pain	37	47.4%
Acute pain or both acute and chronic pain	14	18.0%
Unknown pain type	27	34.6%

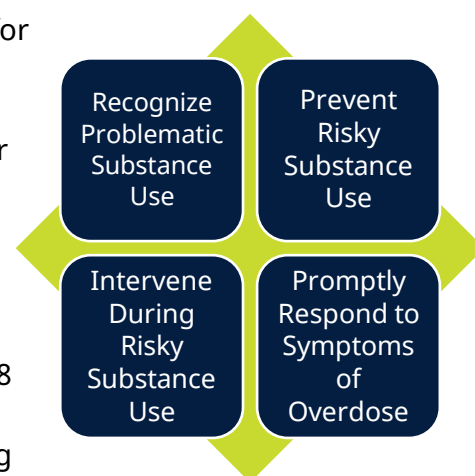
Note: Among decedents with an available CME report and evidence of receiving treatment for pain at time of fatal overdose (n=78).

Potential Opportunities for Prevention or Intervention

The OD module collects data on potentially missed opportunities for recognition, prevention, or intervention prior to a fatal overdose. Indicators include history of previous overdose suggesting problematic substance use, recent contact with systems of care for any reason prior to fatal overdose, and delays in response to risky substance use by potential bystanders on scene at the time of the decedent's fatal overdose.

Previous Overdose

A previous nonfatal overdose was reported among 200 of the 1,628 decedents with an available CME report. Of these 200 decedents, nearly one-third previously overdosed during the month preceding their death, 1 in 5 had a nonfatal overdose between 1 and 12 months prior to their death, and 1 in 10 had a nonfatal overdose more than a year ago. The timing of previous nonfatal overdose was unknown for 73 decedents (36.5%) (Table 9).

**Figure 5.** Opportunities to Prevent Overdose**Table 9.** History of Previous Nonfatal Overdose, by Timing of Occurrence, SC, 2022

Timing of Nonfatal Overdose	No.	%
< 1 month prior to death	65	32.5%
1-12 months prior to death	41	20.5%
> 12 months prior to death	21	10.5%
Previous OD, timing unknown	73	36.5%

Note: Among decedents with an available CME report and evidence of previous overdose (n=200).

Recent Visit to Emergency Department or Urgent Care

Among 1,628 decedents with available CME reports, 131 (8.0%) visited an emergency department or urgent care within a year before their death. Of the 131 decedents, 98 (74.8%) visited within one month before their death. In addition to the 131 decedents, 16 decedents visited an emergency department or urgent care, but the timing of the visit was unknown (Table 10).

Table 10. Timing of Recent Emergency Department or Urgent Care Visit, SC, 2022

Timing of Visit	No.	%
< 1 month before death	98	74.8%
1–3 months before death	13	9.9%
3-6 months before death	9	6.9%
6-12 months before death	11	8.4%

Note: Among decedents with available CME report and evidence of an emergency department or urgent care visit within the past year (n=131). Timing was unknown for 16 decedents. Data was missing for 1 decedent.

Opportunities to Respond: Bystanders, Laypersons, and First Responders

When a decedent overdoses, several groups of people may respond, including potential bystanders who were physically nearby either during or shortly preceding the overdose, laypersons who arrive after the overdose and discover the decedent unresponsive or impaired, and first responders who are called to the scene for assistance. To be considered as a potential bystander, a person must be at least 11 years old and have the mental capacity to respond to an overdose. Bystanders may also include medical professionals present during the overdose, but who were not acting within a medical capacity. First responders and other professionals called to the scene are not considered bystanders.

Family members and intimate partners were present on scene during or shortly before 64% of fatal overdoses in South Carolina

Potential Bystanders and Overdose Awareness

Due to their proximity to the decedent during or shortly before fatal overdose, potential bystanders may have the greatest opportunity to intervene prior to onset of overdose. Among the 813 (49.9%) decedents with an available CME report and at least one potential bystander present, nearly two-thirds had one potential bystander present and over 1 in 5 had multiple potential bystanders present (Table 11). No potential bystanders were present for 395 (24.3%) fatal overdoses with a CME report, and it was unknown if a bystander was present for the remaining 420 (25.8%) overdoses. More than one-half of potential bystanders were spatially separated from the decedent (i.e., in the same building but a different room). Nearly one-fourth of potential bystanders observed abnormalities (e.g., agonal breathing) but did not recognize those abnormalities as signs of an overdose (Table 11). For example, potential bystanders frequently perceived agonal breathing as snoring and avoided disturbing the decedent who appeared to be asleep.

Nearly ¼ of potential bystanders did not recognize abnormalities as an overdose

Table 11. Presence of Potential Bystanders and Barriers to Bystander Response, SC, 2022

Potential Bystander	No.	%
Number Present		
One	500	61.5%
Multiple	187	23.0%
Potential bystanders present, unknown number	126	15.5%
Person Type Present ^a		
Family member (<i>excluding intimate partner</i>)	284	34.9%
Intimate partner	237	29.2%
Friend	171	21.0%
Roommate	117	14.4%
Person using drugs	54	6.6%
Stranger	20	2.5%
Medical professional	5	0.6%
Other	92	11.3%
Reason for Delayed/No Response ^a		
Spatially separated	428	52.6%
Did not recognize abnormalities	199	24.5%
Unaware decedent was using substances	101	12.4%
Other reason ^b	77	9.5%
Reported abnormalities but did not recognize as overdose	73	9.0%
Bystander was impaired/using drugs	65	8.0%
Public space and strangers didn't intervene	6	0.7%

Note: Among decedents with a CME report available and at least one potential bystander present (n=813).

^a Percentages may not total to 100% due to the possibility of multiple potential bystanders. ^b "Other reason" includes bystander was either asleep, briefly left location following decedent's drug use, thought victim was using marijuana, or wanted to avoid law enforcement.

Layperson Response (other than naloxone administration)

Laypersons are people on the scene of an overdose who are not acting in a medical capacity but who may engage in different types of interventions in response to signs of overdose. Bystanders are a type of layperson. Laypersons may employ multiple responses, including naloxone administration to revive or assist a decedent after overdose occurs. The most common layperson responses included cardiopulmonary resuscitation (CPR) (10.5%), external stimulation (9.8%), and other interventions (67.7%) (Table 12). CPR includes chest compressions (with or without rescue breathing) to maintain blood flow until EMS arrives. External stimulation includes activities such as splashing cold water or ice, and shaking or yelling at the person who has “nodded off” or gone unresponsive to try to rouse them. Calling 911 was the most common form of other intervention.

First Responder Response (other than naloxone administration)

Emergency medical services (EMS) arrived on scene for 1,337 (82.2%) fatal overdoses. EMS did not arrive for 46 (2.8%) overdoses and arrival was unknown for 244 (15.0%) overdoses (Table 12).

Table 12. Layperson^a and First Responder Response to Overdose (excluding naloxone), SC, 2022

Response to Overdose	No.	%
Layperson Response ^b		
CPR	171	10.5%
Stimulation	159	9.8%
Rescue breathing	< 5	*
Sternal rub	< 5	*
Other intervention ^c	1,102	67.7%
First Responder response ^b		
EMS arrived on scene	1,337	82.2%
EMS did not arrive on scene	46	2.8%
Unknown if EMS arrived on scene	244	15.0%

Note: Among decedents with an available CME report (n=1,628).

^aLayperson includes potential bystanders. ^b Excludes naloxone administration. Percentages may not total to 100% because laypersons and first responders may engage in multiple responses following an overdose.

^cOther intervention = calling 911, notifying other authorities, transport to medical care, or other attempts to monitor or assist decedent.

Naloxone Administration

Naloxone was administered to 286 (17.6%) decedents, was not administered to 737 (45.3%) decedents, and administration was unknown for 605 (37.2%) decedents (Table 13). The percentage of decedents with evidence of receiving naloxone varied by reporting period, with an overall decline from 18.4% in July to September 2020 to 16.3% in October to December 2022. The highest percentage of naloxone administration was observed from October to December 2021, and the lowest percentage was observed from July to September 2021 (Figure 6). Decedents may have been administered naloxone by more

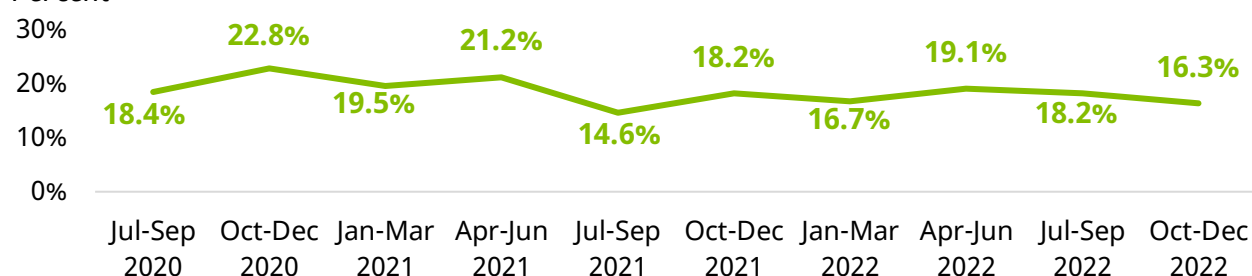
than one group, including potential bystanders, laypersons, first responders, or health care personnel. The number of dosages administered to each decedent varied by the type of person administering the naloxone. Among decedents with evidence of naloxone administration, more than half (57.0%) were administered naloxone by EMS or Fire and Rescue personnel (EMS/Fire) and one-fourth (25.5%) by laypersons or potential bystanders (Table 13). Most decedents received either one dosage (38.6%), two dosages (20.6%), or four dosages (5.8%) (Table 14).

Table 13. Evidence of Naloxone Administration, SC, 2022

Administration of Naloxone	No.	%
Naloxone Administration ^a		
Administered	286	17.6%
Not administered	737	45.3%
Unknown if administered or not	605	37.2%
Type of Person Who Administered Naloxone ^b		
EMS/Fire	163	57.0%
Layperson/bystander	73	25.5%
Law enforcement	23	8.0%
Hospital	12	4.2%
Other person type or unknown who administered	42	14.7%
Type of Layperson/Bystander Who Administered Naloxone		
Family member (<i>excluding intimate partner</i>)	23	31.5%
Intimate partner	18	24.7%
Other known person	16	21.9%
Friend	12	16.4%
Roommate	6	8.2%
Person using drugs or impaired	5	6.8%
Stranger	0	0.0%
Relationship to decedent unknown	0	0.0%

Note: ^aAmong decedents with an available CME report (n=1,628). ^bAmong decedents with an available CME report who have evidence of naloxone being administered (n=286). ^cAmong decedents with an available CME report who have evidence of naloxone being administered by a layperson/bystander. Naloxone may have been administered by multiple people. Percentages may not sum to 100%.

Figure 6. Percent of Drug Overdose Deaths with Naloxone Administered in SC, by Quarter



Note: Among decedents with an available CME report.

Table 14. Number of Naloxone Dosages Administered, by Type of Person Administering Naloxone, SC, 2022

Number of Naloxone Dosages Administered	No.	%
By a Layperson		
Between one and four dosages	48	65.8%
Unknown number of dosages	25	34.2%
By First Responder or Healthcare Personnel		
Between one and eight dosages	136	72.0%
Unknown number of dosages	53	28.0%

Note: Among decedents with an available CME report and evidence of naloxone being administered (n=286)

III. Informing State Response to Emerging Threats Using SUDORS Data

DPH generates substance detection reports using data from SUDORS and the South Carolina Violent Death Reporting System (SCVDRS) to fulfill requests from the South Carolina Opioid Emergency Response Teams (OERT) for state-level data on emerging and novel substances potentially linked to overdose fatalities in South Carolina and nationally. Substance detection reports cull postmortem toxicology data from both SUDORS and SCVDRS to determine first detection of an identified substance among decedents of violent and drug overdose deaths in South Carolina since 2003. Substance detection reports use SUDORS data to identify trends in overdose fatalities where the substance was detected, to describe circumstances leading to and surrounding fatal overdoses, and to identify South Carolina regions and populations that have sustained the most fatalities from the substance. Recent substance detection reports for the OERT were generated using SUDORS 2020-2022 data on bromazepam, etizolam, and xylazine. Previous reports provided 2020-2021 data on ketamine, levamisole, nitazenes, xylazine, and sodium nitrite. Abbreviated versions of substance detection reports were also created to support coroner requests for data on substances such as kratom. Substance detection reports have also been used by the OERT to assist in framing their response to emerging threats such as xylazine. One example includes providing data to support the issuance of Public Health Order (PHO) No. 2023-10-25 in October 2023. The PHO required all laboratory-confirmed positive test results for xylazine and its associated metabolites to be reported to the state public health department. The PHO encouraged greater collaboration among reporting laboratories, coroners, and the state public health department to improve the detection of xylazine in South Carolina and to justify scheduling it as a controlled substance in the state. In June 2024, xylazine was scheduled as a controlled substance by the South Carolina General Assembly, and PHO No. 2023-10-25 was rescinded.

DISCUSSION

The DPH Bureau of Chronic Disease and Injury Prevention (BCDIP) abstracted demographic, incident, and circumstance data into SUDORS to support monitoring and prevention of fatal overdoses at the national, state, and local levels. Data was abstracted from DCs, postmortem toxicology, and CME reports, including autopsies, investigation summaries, and scene descriptions of fatal drug overdoses where death occurs in South Carolina irrespective of decedent's state of residence. This report provides a summary of overdose deaths that occurred in South Carolina from January to December 2022 and the circumstances leading to these fatal incidents.

This report combines information from multiple data sources to provide a comprehensive look at the demographics, locations, contributing circumstances of, and responses to fatal drug overdoses in South Carolina during calendar year 2022.

Nevertheless, the following limitations exist:

- Year-over-year changes in drug trends, common overdose locations, decedent demographics, and community responses cannot be assessed due to the inclusion of only one year of data. The addition of multiple years of data will allow for monitoring incidence, prevalence, and the impact of the evolving drug supply.
- Coroner reports were available for 72.6% of drug overdose decedents and were the primary source of data on surrounding circumstances and community response. Therefore, these results may not be representative of all decedents who overdosed in South Carolina during the calendar year 2022.
- Current analyses were limited to fatal drug overdose incidents. However, incidents of nonfatal drug overdose may differ in the number and types of substances used, routes of administration, overdose settings, demographic groups most affected, surrounding circumstances, or interventions employed by laypersons and first responders arriving on the scene.

These limitations notwithstanding, this annual report of SUDORS data on drug overdose deaths in South Carolina is the first comprehensive report describing the circumstances surrounding fatal drug overdoses and the lifesaving measures attempted by laypersons and first responders in South Carolina.

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below). A special thank you also to the 32 county coroner offices that were able to submit data during the 2022 data collection period (see Appendix).

Forty-Six SC County Coroners

Abbeville County Coroner	Dillon County Coroner	McCormick County Coroner
Aiken County Coroner	Dorchester County Coroner	Marion County Coroner
Allendale County Coroner	Edgefield County Coroner	Marlboro County Coroner
Anderson County Coroner	Fairfield County Coroner	Newberry County Coroner
Bamberg County Coroner	Florence County Coroner	Oconee County Coroner
Barnwell County Coroner	Georgetown County Coroner	Orangeburg County Coroner
Beaufort County Coroner	Greenville County Coroner	Pickens County Coroner
Berkeley County Coroner	Greenwood County Coroner	Richland County Coroner
Calhoun County Coroner	Hampton County Coroner	Saluda County Coroner
Charleston County Coroner	Horry County Coroner	Spartanburg County Coroner
Cherokee County Coroner	Jasper County Coroner	Sumter County Coroner
Chester County Coroner	Kershaw County Coroner	Union County Coroner
Chesterfield County Coroner	Lancaster County Coroner	Williamsburg County Coroner
Clarendon County Coroner	Laurens County Coroner	York County Coroner
Colleton County Coroner	Lee County Coroner	
Darlington County Coroner	Lexington County Coroner	

Additionally, thank you to the entire DPH OD2A team, including data abstractors Carolane Bagnal, Misha Nazir, Shakeem Robinson, Rietta Singleton, and Nikki Williams for their assistance in collecting and entering SC 2022 SUDORS data; epidemiologist Emily Ash for her assistance in analyzing and reporting SUDORS data; and Claire Carey for her design and formatting of the SUDORS report.

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SUGGESTED CITATION

Al-Barwani, MB., Ash, EA., and Nazir, MZ. South Carolina Drug Overdose Deaths: Annual State Unintentional Drug Overdose Reporting System Data Report, January-December 2022. Columbia, SC. Bureau of Chronic Disease and Injury Prevention, South Carolina Department of Public Health. October 2025.

Appendix.

Table A1. Count of Overdose Deaths Occurring in SC County, Percent with a Coroner/Medical Examiner Report Available, and Percent with Evidence of Contributing Circumstance, 2022

County of Occurrence	Number of Decedents	<u>With CME Report</u>		<u>With Circumstances</u>	
		No.	%	No.	%
Unknown	43	10	23.3%	8	80.0%
Abbeville	5	<5	-	<5	100.0%
Aiken	87	84	96.6%	83	98.8%
Allendale	<5	0	0.0%	^^	N/A
Anderson	67	0	0.0%	^^	N/A
Bamberg	<5	<5	-	<5	100.0%
Barnwell	20	19	95.0%	7	36.8%
Beaufort	37	0	0.0%	^^	N/A
Berkeley	77	67	87.0%	63	94.0%
Calhoun	<5	<5	-	<5	50.0%
Charleston	194	189	97.4%	180	95.2%
Cherokee	17	0	0.0%	^^	N/A
Chester	10	8	80.0%	8	100.0%
Chesterfield	15	14	93.3%	14	100.0%
Clarendon	<5	0	0.0%	^^	N/A
Colleton	12	0	0.0%	^^	N/A
Darlington	28	11	39.3%	7	63.6%
Dillon	18	0	0.0%	^^	N/A
Dorchester	44	36	81.8%	30	83.3%
Edgefield	11	11	100.0%	11	100.0%
Fairfield	5	5	100.0%	5	100.0%
Florence	74	<5	-	0	0.0%
Georgetown	33	21	63.6%	19	90.5%
Greenville	273	265	97.1%	260	98.1%
Greenwood	29	21	72.4%	15	71.4%
Hampton	<5	<5	-	<5	100.0%
Horry	229	204	89.1%	154	75.5%
Jasper	26	22	84.6%	20	90.9%
Kershaw	23	0	0.0%	^^	N/A
Lancaster	52	<5	-	0	0.0%

County of Occurrence	Number of Decedents	With CME Report		With Circumstances	
		No.	%	No.	%
Laurens	36	36	100.0%	32	88.9%
Lee	11	0	0.0%	^^	N/A
Lexington	120	116	96.7%	113	97.4%
McCormick	0	0	N/A	^^	N/A
Marion	9	0	0.0%	^^	N/A
Marlboro	<5	0	0.0%	^^	N/A
Newberry	10	9	90.0%	9	100.0%
Oconee	27	25	92.6%	20	80.0%
Orangeburg	36	0	0.0%	^^	N/A
Pickens	55	55	100.0%	51	92.7%
Richland	124	76	61.3%	69	90.8%
Saluda	5	5	100.0%	5	100.0%
Spartanburg	186	155	83.3%	151	97.4%
Sumter	38	35	92.1%	33	94.3%
Union	17	17	100.0%	17	100.0%
Williamsburg	16	0	0.0%	^^	N/A
York	104	101	97.1%	98	97.0%
Total	2,242	1,628	72.6%	1,488	91.4%

Note: Counts 1-4 are suppressed and denoted with "<5". Percentages associated with suppressed counts are denoted with "-". Counts for counties where 0 decedents have a CME report available are denoted with "^^", and the percent of decedents with known circumstances is denoted with "N/A".