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Maine Monthly Overdose Report for December 2022

Marcella H. Sorg

Daniel S. Soucier

Abby Leidenfrost

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MAINE MONTHLY OVERDOSE REPORT

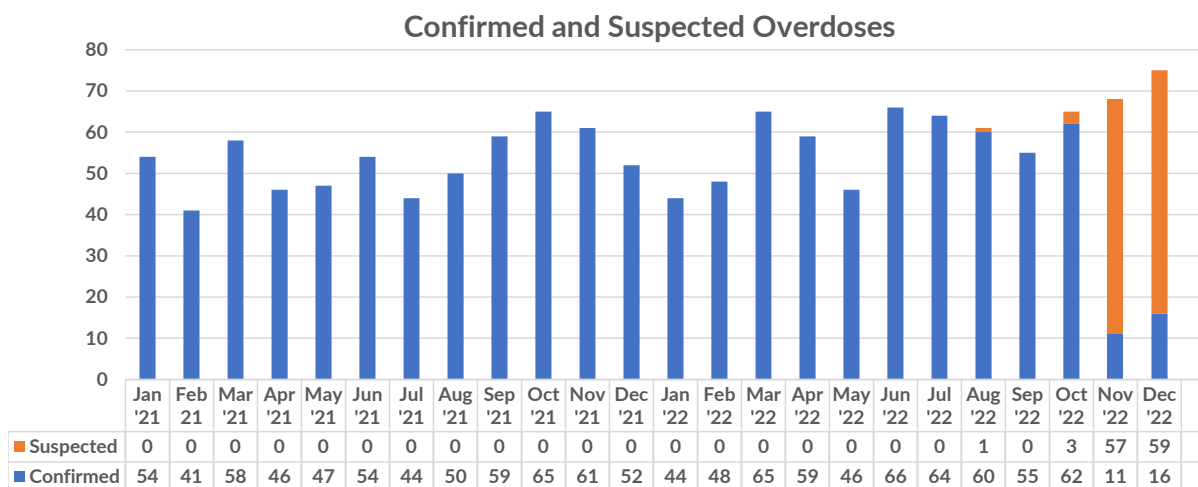
For December 2022

Marcella H. Sorg, Daniel S. Soucier, Abby Leidenfrost
Margaret Chase Smith Policy Center, University of Maine

Overview

This report documents suspected and confirmed fatal and nonfatal drug overdoses in Maine during December 2022 as well as for the period January 2021–December 2022 (Table 1). During December, the proportion of fatal overdoses averaged 8.1% of total overdoses. Monthly proportions of 2022 fatalities have fluctuated from a low of 5.1% in May to a high of 8.9% in November. So far for 2022, the total number of overdoses January–December is 4.5% higher than during the January–December 2021 (13.5% fatal and 3.8% nonfatal increase). During the period January–December 2022, fatal overdoses comprised 7.1% of all overdoses, slightly higher than the 6.5% for 2021. Data derived from multiple statewide sources were compiled and deduplicated to compute nonfatal overdose totals. These include nonfatal overdose incidents reported by hospital emergency departments (ED), nonfatal emergency medical service (EMS) responses without transport to the ED, overdose reversals reported by law enforcement in the absence of EMS, and overdose reversals reported by community members or agencies receiving State-supplied naloxone. There are also an unknown number of private overdose reversals that were not reported, and an unknown number of the community-reported reversals that may have overlapped with emergency response by EMS or law enforcement. The total number of fatal overdoses in this report includes those that have been confirmed, as well as those that are suspected but not yet confirmed for August, October, November, and December (see Figure 1).

Figure 1. Suspected and confirmed fatal overdoses January 2021 through December 2022



The total number of reported fatal and nonfatal overdoses January through December 2022, 10110, is displayed in Table 1 in the bottom row: 716 (7.1%) confirmed and suspected fatal overdoses, 4372 (43.2%) nonfatal emergency department visits, 2736 (27.1%) nonfatal EMS responses not transported to the emergency department, 2213 (21.9%) reported community overdose reversals, and 73 (0.7%) law enforcement reversals in incidents that did not include EMS.

Table 1: Composite overdose totals by month, January 2021–December 2022

	Nonfatal					Total confirmed and suspected fatal overdoses	Total overdoses
	Emergency Dept.	EMS not transported to emergency	Community reversals with naloxone	Law enforcement reversals with naloxone and without EMS	Total nonfatal overdoses		
January 2021	270	165	127	18	580	54	634
February 2021	277	120	100	5	502	41	543
March 2021	329	177	156	15	677	58	735
April 2021	334	191	136	6	667	46	713
May 2021	409	165	100	3	677	47	724
June 2021	411	223	189	11	834	54	888
July 2021	482	227	167	20	896	44	940
August 2021	428	237	222	12	899	50	949
September 2021	473	237	276	7	993	59	1052
October 2021	383	250	208	17	858	65	923
November 2021	308	226	195	10	739	61	800
December 2021	344	201	176	4	725	52	777
2021 Total	4448 (46.0%)	2419 (25.0%)	2052 (21.2%)	128 (1.3%)	9047 (93.5%)	631 (6.5%)	9678 (100.0%)
January 2022	296	206	178	1	681	44	725
February 2022	333	185	153	4	675	48	723
March 2022	457	201	202	7	867	65	932
April 2022	290	178	189	7	664	59	723
May 2022	402	248	186	12	848	46	894
June 2022	482	250	177	10	919	66	985
July 2022	348	287	170	4	809	64	873
August 2022	385	271	242	7	905	61	966
September 2022	458	256	140	6	860	55	915
October 2022	283	237	164	6	690	65	755
November 2022	286	205	202	5	698	68	766
December 2022	352	212	210	4	853	75	928
2022 YTD total	4372 (43.2%)	2736 (27.1%)	2213 (21.9%)	73 (0.7%)	9394 (92.9%)	716 (7.1%)	10110 (100.0%)

*Law enforcement reversals are updated as cases are reported by departments and agencies. Thus, there may be significant changes in the data reported for December compared to previous months. Law enforcement cases also have EMS involvement most of the time. Due to the need to deduplicate overdoses, law enforcement numbers only include those where EMS is not present. For comparison, from October to December 2022, law enforcement agencies reported 184 cases with EMS involvement.

County Distribution of Fatal Overdoses

Table 2 shows the frequency distribution of fatal overdoses at the county level. The December monthly totals can be compared either to the percentage of the census population on the far-left column, the percentage of all Maine fatal overdoses for 2021, or year-to-date percentages for 2022. Caution must be exercised viewing single counties with small numbers for a single month. These may fluctuate randomly, without reflecting any significant statistical trend.

The year-to-date 2022 percentages for most counties fall within 0 to 1 percentage points of the 2020 census distribution. Cumberland County is 4 percentage points lower; Sagadahoc County and York County are 2 percentage points lower than the 2020 census proportion. Androscoggin County and Aroostook County are 2 percentage points higher and Penobscot County is 4 percentage points higher than the 2020 census proportion.

Table 2: County of death among suspected and confirmed fatal overdoses

	% 2020 estimated Census population	Jan–Dec 2021 Est. N = 631	Jan–Dec 2022 Est. N = 716	Dec 2022 Est. N = 75
Androscoggin	8%	69 (11%)	72 (10%)	9 (12%)
Aroostook	5%	39 (6%)	48 (7%)	5 (7%)
Cumberland	22%	114 (18%)	130 (18%)	10 (13%)
Franklin	2%	8 (1%)	14 (2%)	1 (1%)
Hancock	4%	22 (3%)	24 (3%)	4 (5%)
Kennebec	9%	64 (10%)	55 (8%)	5 (7%)
Knox	3%	11 (2%)	20 (3%)	3 (4%)
Lincoln	3%	16 (3%)	13 (2%)	1 (1%)
Oxford	4%	28 (4%)	36 (5%)	5 (7%)
Penobscot	11%	106 (17%)	106 (15%)	9 (12%)
Piscataquis	1%	11 (2%)	9 (1%)	1 (1%)
Sagadahoc	3%	7 (1%)	9 (1%)	1 (1%)
Somerset	4%	26 (4%)	35 (5%)	2 (3%)
Waldo	3%	15 (2%)	21 (3%)	2 (3%)
Washington	2%	25 (4%)	23 (3%)	4 (5%)
York	16%	70 (11%)	101 (14%)	13 (17%)

Table 3 displays the age and gender composition of the 2022 year-to-date fatal overdose population, the 2021 fatal overdose population, and the 2020 estimated census population. The 2022 overall age categories are within 2 to 4 percentage points of 2021. The cumulative proportion of males has risen from 71% in 2021 to 73% in the 2022. The cumulative age distribution for 2022 compared to 2021 shows 2 deaths under 18 in 2021 and 3 deaths in 2022, an increase of 2 percentage points in the proportion of those aged 18–39, a decrease of 4 percentage points in those aged 40–59, and a 3-percentage point increase in the proportion of those 60 and above. Note that death certificate data records biological sex and does not contain gender categories.

Table 3: Decedent reported age and sex characteristics among suspected and confirmed fatal overdoses*

	% 2020 estimated Census population	Jan–Dec 2021 Est. N = 631	Jan–Dec 2022 Est. N = 716	Dec 2022 Est. N = 75
Males	49%	451 (71%)	525 (73%)	50 (67%)
Under 18	19%	2 (<1%)	3 (<1%)	1 (1%)
18–39	26%	247 (39%)	293 (41%)	30 (40%)
40–59	27%	316 (50%)	330 (46%)	32 (43%)
60+	29%	66 (10%)	90 (13%)	12 (16%)

*Percentages may not total 100 due to rounding.

Table 4 displays the reported race and ethnicity of confirmed and suspected fatal overdoses for whom race, and ethnicity were reported in 2021 and 2022, compared to the 2020 census population. Note that race and ethnicity are not finalized until the full death certificate is entered into Vital Records. Race and ethnicity proportions in 2022 have remained relatively stable, within 1 percentage point, compared to 2021. Out of 712 decedents for whom race was reported January through December 2022, 93% of the victims were identified as White, 2% as Black/African American, and 2% as American Indian/Alaska Native. Out of 699 decedents for whom Hispanic ethnicity status was reported, 1% were identified as Hispanic. As mentioned earlier, the drug death population includes some persons who were residents of other states, whereas the census population is restricted to residents only.

Table 4: Decedent race and ethnicity among suspected and confirmed fatal overdoses*

	% 2020 estimated Census population: Race & Hispanic/Latinx ethnicity	Jan–Dec 2021 Race† Est. N = 627 Ethnicity N = 621	Jan–Dec 2022 Race N = 712 Ethnicity N = 699	Dec 2022 Race N = 73 Ethnicity N = 72
White alone, non-Hispanic	91%	585 (93%)	663 (93%)	68 (93%)
Black/African American alone, non-Hispanic	2%	21 (3%)	17 (2%)	2 (3%)
American Indian/Alaska Native, non-Hispanic	1%	14 (2%)	13 (2%)	2 (3%)
Other race and 2+ races combined, non-Hispanic	7%	7 (1%)	12 (2%)	1 (1%)
Hispanic/Latinx alone or in combination	2%	10 (2%)	7 (1%)	0 (0%)

*Race and ethnicity data are usually unavailable until drug deaths are confirmed.

†Percentages may not total 100 due to rounding.

Out of the 714 cases for which military background was reported January–December 2022, 54 (8%) were identified as having a military background.

Of the 716 total suspected and confirmed overdoses cases in 2022, undomiciled or transient housing status was reported for 81 (11%) of drug fatality victims. Among those 81, the largest proportions of undomiciled persons were found in Cumberland County (31, 38%) and Penobscot County (20, 25%).

Table 5 reports some of the basic incident patterns for fatal overdoses. Both EMS and police responded to most fatal overdoses (75%) in 2022. Law enforcement was more likely to respond to a scene alone (18%) than EMS (6%). The overwhelming majority (95%) of confirmed fatal drug overdoses were ruled as, or suspected of

being, accidental manner of death. Of the 716 confirmed or suspected fatal overdoses in 2022, 268 (37%) had a history of prior overdose. Although most cases had bystanders or witnesses present at the scene by the time first responders arrived, the details about who was present at the time of the overdose were frequently unclear. However, responding family and friends or bystanders administered naloxone for 82 (11%) of the 2022 fatal overdoses, an increase over the previous two years (4% in 2020 and 9% in 2021). Often, bystanders or witnesses administered naloxone in addition to EMS and/or law enforcement. During 2022, 25% of suspected and confirmed fatal overdose cases had naloxone administered at the scene by EMS, bystanders, and/or law enforcement. This rate is lower than in 2021 (30%).

Of the 577 suspected or confirmed drug death cases with EMS involvement during 2022, 300 (52%) victims were already deceased when EMS arrived. In the remaining 277 (48%) cases, resuscitation was attempted either at the scene or presumably in the ambulance during transport to the emergency room. Of those 277 who were still alive when EMS arrived, 86 (31%) were transported, and 191 (69%) did not survive to be transported. Thus, out of 577 ultimately fatal cases with EMS response, only 86 (15%) remained alive long enough to be transported but died during transport or at the emergency room. This is likely due to a combination of the high number of cases with fentanyl as a cause of death and individuals using alone. Fentanyl acts more quickly than other opioids and there is less time for bystanders to find an overdose victim alive and respond by administering naloxone and calling 911.

Table 5: Event characteristics among suspected and confirmed fatal overdoses

	Jan-Dec 2021 Est. N = 631	Jan-Dec 2022 Est. N = 716	Dec 2022 Est. N = 75
First Responder			
EMS response alone	26 (4%)	41 (6%)	8 (11%)
Law enforcement alone	108 (17%)	129 (18%)	12 (16%)
EMS and law enforcement	491 (78%)	536 (75%)	51 (68%)
Private transport to Emergency Dept.	8 (1%)	13 (2%)	5 (7%)
Naloxone administration reported at the scene			
Bystander only administered	36 (6%)	45 (6%)	6 (8%)
Law enforcement only administered	22 (3%)	31 (4%)	3 (4%)
EMS only administered	84 (13%)	52 (7%)	6 (8%)
EMS and law enforcement administered	20 (3%)	11 (2%)	1 (1%)
EMS and bystander administered	15 (2%)	26 (4%)	2 (3%)
Law enforcement and bystander administered	5 (1%)	5 (1%)	0 (0%)
EMS, bystander, and law enforcement administered	2 (<1%)	6 (1%)	1 (1%)
Naloxone administered by unspecified person	3 (<1%)	10 (1%)	2 (3%)
History of prior overdose	216 (34%)	268 (37%)	31 (41%)

Table 6 displays the frequencies of the most prominent drug categories causing death among confirmed drug deaths. As expected, within the 642 confirmed drug death cases so far in 2022, nonpharmaceutical fentanyl was the most frequent cause of death mentioned on the death certificate of 507 (79%) victims.

Fentanyl is nearly always found in combination with multiple other drugs. Heroin involvement, declining rapidly in recent years, was reported as a cause of death in only 2% (15) of 2022 deaths, 1 percentage point less than in 2021 (3%, 22), and significantly lower than 2020 (11%, 57). Xylazine and nonpharmaceutical tramadol were identified as co-intoxicants with fentanyl for the first time in 2021. Among 642 confirmed deaths in 2022, there were 39 cases (6%) with xylazine listed in addition to fentanyl as a cause of death, and 9 cases (1%) with tramadol listed along with fentanyl.

Stimulants continue to increase as a cause of death, usually in combination with other drugs, particularly fentanyl. Methamphetamine was cited as a cause of death in 208 (32%) of the confirmed fatal overdoses in 2022, an increase from 27% in 2021; 170 (82%) of the methamphetamine deaths also involved fentanyl as a co-intoxicant cause of death. Cocaine-involved fatalities constituted 191 (30%) of confirmed cases in 2022, an increase from 25% in 2021. Fentanyl is mentioned as a cause in combination with cocaine in 156 (82%) of 2022 cocaine cases. Cocaine and methamphetamine are named together on 47 (7%) death certificates in 2022, in most cases (40, 85%) as combined co-intoxicants also combined with fentanyl.

Table 6: Key drug categories and combinations causing death among confirmed overdoses

Cause of death (alone or in combination with other drugs) Sample size for confirmed cases only	Jan-Dec 2021 Est. N = 631	Jan-Dec 2022 N = 642	Dec 2022 N = 16
Fentanyl or fentanyl analogs	489 (77%)	507 (79%)	9 (56%)
Heroin	22 (3%)	15 (2%)	0 (0%)
Cocaine	156 (25%)	191 (30%)	5 (31%)
Methamphetamine	172 (27%)	208 (32%)	3 (19%)
Pharmaceutical opioids**	130 (21%)	128 (20%)	1 (6%)
Fentanyl and heroin	20 (3%)	15 (2%)	0 (0%)
Fentanyl and cocaine	127 (20%)	156 (24%)	2 (13%)
Fentanyl and methamphetamine	133 (21%)	170 (26%)	2 (13%)
Fentanyl and xylazine	53 (8%)	39 (6%)	1 (6%)
Fentanyl and tramadol	24 (4%)	9 (1%)	0 (0%)

**Nonpharmaceutical tramadol is now being combined with fentanyl in pills and powders for illicit drug use. When found in combination with fentanyl, and in the absence of a known prescription, tramadol is categorized as a nonpharmaceutical opioid.

Highlight of the Month

OPIOID RESPONSE HIGHLIGHT

This month we bring to readers' attention Governor Mills' Opioid Response Strategic Action Plan (SAP), which was adopted in September, 2019, updated in 2021, and is undergoing a second update currently. The goal of the Plan is to reduce the negative health and economic impacts of opioid and other substance use disorders on individuals, families, and communities in Maine and, in so doing, give hope to all persons with a substance use disorder that recovery is not just possible but probable. Built on the five pillars of Prevention, Treatment, Harm-Reduction, Recovery Support and Leadership, the SAP contains ten priorities, thirty-three strategies and dozens of activities. The Plan also acknowledges the cross-cutting issue of stigma, the value of data and the importance of infrastructure in implementing an effective strategy. While many of the activities prioritized in 2019 have been completed, many are continuing and the Plan is now being updated to adapt to the changing drug supply and the challenges brought on by the global pandemic.

In soliciting public input for the updated SAP, a brief survey was sent to thousands of Mainers of whom nearly 1,000 responded. One of the recent monthly opioid response webinars was also dedicated to receiving comments on the current plan. In addition, populations disproportionately impacted by the opioid epidemic have been invited to offer their suggestions. Areas already identified for more attention include services for veterans, Maine's BIPOC population, and adolescents.

The updated plan will also put additional focus on primary prevention. Too many Maine youth are experiencing traumatic events and too many are experimenting with substances that increase their risk of addiction. Governor Mills in her recent second inaugural address committed to having a substance use prevention program in every school and in every community by the end of 2026. The five departments represented in the Children's Cabinet (Departments of Health and Human Services, Education, Labor, Corrections and Public Safety) and the Governor's Office of Policy Innovation and the Future will be responsible for developing initiatives to reach this goal, and the work has begun.

The updated Plan is expected to be available before the end of February and will be posted on websites at mainedrugdata.org and knowyouroptions.me.

Background Information about this Report

This report, funded jointly by the Maine Office of Attorney General and the Office of Behavioral Health,¹ provides an overview of statistics regarding suspected and confirmed fatal and nonfatal drug overdoses each month. Data for the fatal overdoses were collected at the Office of Chief Medical Examiner and data regarding nonfatal overdoses were contributed by the Maine CDC, Maine Emergency Medical Services, Maine ODMAP initiative, Maine Naloxone Distribution Initiative, and Office of Attorney General Naloxone Distribution. Year-to-date numbers are updated as medical examiner cases are finalized, and their overdose status is confirmed or ruled out. The totals are expected to shift as case completion occurs. In addition, due to the small sample size in each month, we expect totals to fluctuate from month to month due to the effects of random variation. The monthly reports will be posted on mainedrugdata.org. A “drug death” is confirmed when one or more drugs are mentioned on the death certificate as a cause or significant contributing factor for the death. Most drug-induced fatalities are accidents related primarily to drug lethality, the unique vulnerability of the drug user, such as underlying medical conditions, and the particular circumstances surrounding drug use during that moment.

A “suspected” drug fatality is identified by physiological signs of overdose as well as physical signs at the scene and witness information. In order to be confirmed as a drug death, the medical examiner must have issued a final death certificate which includes the names of the specific drugs. A forensic toxicology exam must also have been done, which includes a minimum of two toxicology tests, one to screen for drugs present, and another that will quantify the levels of drugs in the decedent’s system. All cases receive a thorough external examination. In some cases a complete autopsy is also done. Additional data, such as medical records and police incident reports are also collected. Normally cases are completed within one month; however, due to recent problems being experienced by our national toxicology testing service, completion of cases was delayed.

By highlighting drug deaths at the monthly level, this report brings attention to the often dramatic shifts in totals that can occur from month to month. These fluctuations are common with small numbers and will tend toward an average over time. Whereas the overall number of overdose deaths are a critical indicator of individual and societal stress, this metric itself can be quite resistant to public policy interventions due to its complexity. Overdose fatalities occur because of multiple unique and interacting factors, as mentioned above. For that reason, these reports will seek to monitor components that can be directly affected by specific public health education and harm reduction interventions.

The statistics in this report reflect both suspected and confirmed “occurrent” deaths, that is, deaths that occur in the State of Maine, even though they may not be Maine residents. This will differ slightly from the statistics reported by the National Center for Health Statistics, which reports only confirmed “resident” deaths. In addition, due to recently reported updates of toxicology results and newly confirmed or eliminated drug death cases, both the 2021 and 2022 statistics have changed slightly from those reported in the previous monthly report.

Following a death, a toxicology report is needed to confirm that a case is an overdose, what substances are involved, and to determine cause and manner of death. Toxicology testing for Maine is done at a national reference laboratory located out-of-state. Prior to the pandemic, toxicology tests were customarily available to the Office of the Chief Medical Examiner within two to three weeks; in the pandemic period, turnaround times have extended to between eight and ten weeks. Emergent substances requiring out-of-scope toxicology testing have also caused additional delays. However, the national laboratory has informed the OCME that these issues are being addressed and turnaround is improving. We have resumed monthly reports. Any anticipated delays will be announced on mainedrugdata.org.

¹ The Office of Attorney General supports ongoing research regarding research on fatal overdoses by the University of Maine. Additionally, the Overdose Data to Action cooperative agreement from the U.S. Centers for Disease Control & Prevention also provides funding to the State of Maine’s Office of Behavioral Health and Maine Center for Disease Control, which support University programs involving fatal and nonfatal overdoses surveillance and enable the collection of metrics included in this report. The conclusions in this report do not necessarily represent those of the U.S. CDC.