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MAINE MONTHLY OVERDOSE REPORT

For November 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 November 2022 as well as for the period January 2021–November 2022 (Table 1). During November, the proportion of fatal overdoses averaged 10.2% of total overdoses. Monthly proportions of 2022 fatalities have fluctuated from a low of 5.1% in May to a high of 10.2% in November. So far for 2022, the total number of overdoses January–November is 4.0% higher than during the January–November 2021 (12.3% fatal and 3.4% nonfatal increase). During the period January–November 2022, fatal overdoses comprised 7.0% of all overdoses, just slightly higher than the 6.5% for the first eleven months of 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, and November (see Figure 1).

The total number of reported fatal and nonfatal overdoses January through November 2022, 9253, is displayed in Table 1 in the bottom row: 650 (7.0%) confirmed and suspected fatal overdoses, 4009 (43.3%) nonfatal emergency department visits, 2524 (27.3%) nonfatal EMS responses not transported to the emergency

Confirmed and Suspected Overdoses 90 80 70 60 50 40 30 20 10 0 Feb Jul Oct Dec Jan Mar Apr Mav Jun Aug Sep Nov Jan Feb Mar Jun Jul Aug Sep '21 '22 '21 '21 '21 '21 '21 '22 '22 Suspected 0 0 0 0 0 0 0 0 0 0 1 0 23 75 ■ Confirmed 58 46 47 54 50 59 65 61 52 44 48 65 59 60 55 40

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

department, 2002 (21.6%) reported community overdose reversals, and 68 (0.7%) law enforcement reversals in incidents that did not include EMS.

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

	Nonfatal						
	Emergency Dept.	EMS not transported to emergency	Community reversals with naloxone	Law enforcement reversals with naloxone and without EMS	Total non-fatal overdoses	Total confirmed and suspected fatal overdoses	Total 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	4	661	59	720
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	457	256	140	6	859	55	914
October 2022	284	237	164	6	691	64	755
November 2022	275	205	202	7	689	78	767
2022 YTD total	4009 (43.3%)	2524 (27.3%)	2002 (21.6%)	68 (0.7%)	8603 (93.0%)	650 (7.0%)	9253 (100.0%)

County Distribution of Fatal Overdoses

Table 2 shows the frequency distribution of fatal overdoses at the county level. The November 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-No Est. N		Nov 2022 Est. N=78	
Androscoggin	8%	69	(11%)	64	(10%)	11	(14%)
Aroostook	5%	39	(6%)	45	(7%)	5	(6%)
Cumberland	22%	114	(18%)	119	(18%)	11	(14%)
Franklin	2%	8	(1%)	13	(2%)	1	(3%)
Hancock	4%	22	(3%)	21	(3%)	5	(6%)
Kennebec	9%	64	(10%)	51	(8%)	6	(8%)
Knox	3%	11	(2%)	17	(3%)	1	(3%)
Lincoln	3%	16	(3%)	12	(2%)	1	(3%)
Oxford	4%	28	(4%)	32	(5%)	3	(4%)
Penobscot	11%	106	(17%)	97	(15%)	12	(15%)
Piscataquis	1%	11	(2%)	9	(1%)	1	(3%)
Sagadahoc	3%	7	(1%)	8	(1%)	0	(0%)
Somerset	4%	26	(4%)	35	(5%)	6	(8%)
Waldo	3%	15	(2%)	19	(3%)	2	(3%)
Washington	2%	25	(4%)	18	(3%)	2	(3%)
York	16%	70	(11%)	90	(14%)	11	(14%)

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 74% in the 2022. The cumulative age distribution for 2022 compared to 2021 shows 2 deaths under 18 in 2021 and 2 deaths in 2022, an increase of 3 percentage points in the proportion of those aged 18–39, a decrease of 4 percentage points in those aged 40–59, and a 2-percentage point increase in the proportion of those 60 and above. Note that other gender categories are not available in death certificate data.

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	% 2020 estimated Census population	Jan-De Est. N		Jan-No Est. N		Nov 2 Est. N	
Males	49%	451	(71%)	477	(73%)	58	(74%)
Under 18	19%	2	(<1%)	2	(<1%)	1	(1%)
18-39	26%	247	(39%)	270	(42%)	39	(50%)
40-59	27%	316	(50%)	298	(46%)	30	(38%)
60+	29%	66	(10%)	80	(12%)	8	(10%)

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

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 647 decedents for whom race was reported January through November 2022, 93% of the victims were identified as White, 2% as Black/African American, and 2% as American Indian/Alaska Native. Out of 635 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-Nov Race N Ethnicity	=647	Nov 2022 Race N=77 Ethnicity N=77	
White alone, non-Hispanic	91%	585	(93%)	602	(93%)	72	(94%)
Black/African American alone, non-Hispanic	2%	21	(3%)	16	(2%)	3	(4%)
American Indian/Alaska Native, non-Hispanic	1%	14	(2%)	11	(2%)	2	(3%)
Other race and 2+ races combined, non- Hispanic	7%	7	(1%)	11	(2%)	0	(0%)
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.

Out of the 649 cases for which military background was reported January–November 2022, 51 (8%) were identified as having a military background.

Undomiciled or transient housing status was reported for 71 (11%) of the January – November 2022 drug fatality victims. Among those 71, the largest proportions of undomiciled persons were found in Cumberland County (25, 35%) and Penobscot County (17, 24%).

^{*}Percentages may not total 100 due to rounding.

[†]Percentages may not total 100 due to rounding.

Table 5 reports some of the basic incident patterns for fatal overdoses. Both EMS and police responded to most fatal overdoses (76%) in 2022. Law enforcement was more likely to respond to a scene alone (18%) than EMS (5%). The overwhelming majority (95%) of confirmed fatal drug overdoses were ruled as, or suspected of being, accidental manner of death. Of the 650 confirmed or suspected fatal overdoses in 2022, 241 (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 73 (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 528 suspected or confirmed drug death cases with EMS involvement during 2022, 277 (52%) victims were already deceased when EMS arrived. In the remaining 251 (48%) cases, resuscitation was attempted either at the scene or presumably in the ambulance during transport to the emergency room. Of those 251 who were still alive when EMS arrived, 79 (31%) were transported, and 172 (69%) did not survive to be transported. Thus, out of 528 ultimately fatal cases with EMS response, only 79 (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-De Est. N		Jan-Nov 2022 Est. N=650		Nov 20 N=	
First Responder						
EMS response alone	26	(4%)	34	(5%)	5	(6%)
Law enforcement alone	108	(17%)	117	(18%)	14	(18%)
EMS and law enforcement	491	(78%)	494	(76%)	58	(74%)
Private transport to Emergency Dept.	8	(1%)	5	(1%)	1	(1%)
Naloxone administration reported at the scene	187	(30%)	165	(25%)	24	(31%)
Bystander only administered	36	(6%)	39	(6%)	4	(5%)
Law enforcement only administered	22	(3%)	28	(4%)	5	(6%)
EMS only administered	84	(13%)	52	(8%)	9	(12%)
EMS and law enforcement administered	20	(3%)	11	(2%)	1	(1%)
EMS and bystander administered	15	(2%)	24	(4%)	3	(4%)
Law enforcement and bystander administered	5	(1%)	5	(1%)	0	(0%)
EMS, bystander, and law enforcement administered	2	(<1%)	5	(1%)	1	(1%)
Naloxone administered by unspecified person	3	(<1%)	8	(1%)	1	(1%)
History of prior overdose	216	(34%)	241	(37%)	32	(41%)

Table 6 displays the frequencies of the most prominent drug categories causing death among confirmed drug deaths. As expected, within the 553 confirmed drug death cases so far in 2022, nonpharmaceutical fentanyl was the most frequent cause of death mentioned on the death certificate of 434 (78%) 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% of 2022 deaths, less than in 2021, compared to 11% in 2020. Xylazine and nonpharmaceutical tramadol were identified as co-intoxicants with fentanyl for the first time in 2021. Among 553 confirmed deaths in 2022, there were 34 cases (6%) with xylazine listed in addition to fentanyl as a cause of death, and 8 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 177 (32%) of the confirmed fatal overdoses in 2022, an increase from 27% in 2021; 144 (81%) of the methamphetamine deaths also involved fentanyl as a co-intoxicant cause of death. Cocaine-involved fatalities constituted 161 (29%) of confirmed cases in 2022, an increase from 25% in 2021. Fentanyl is mentioned as a cause in combination with cocaine in 131 (81%) of 2022 cocaine cases. Cocaine and methamphetamine are named together on 38 (7%) death certificates in 2022, in most cases (32, 84%) 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-De Est. N		Jan-No N = 5		Nov 2022 N = 4		
Fentanyl or fentanyl analogs	489	(77%)	434	(78%)	3	(75%)	
Heroin	22	(3%)	13	(2%)	0	(0%)	
Cocaine	156	(25%)	161	(29%)	3	(75%)	
Methamphetamine	172	(27%)	177	(32%)	1	(25%)	
Pharmaceutical opioids**	130	(21%)	112	(20%)	1	(25%)	
Fentanyl and heroin	20	(3%)	13	(2%)	0	(0%)	
Fentanyl and cocaine	127	(20%)	131	(24%)	2	(50%)	
Fentanyl and methamphetamine	133	(21%)	144	(26%)	1	(25%)	
Fentanyl and xylazine	53	(8%)	34	(6%)	1	(25%)	
Fentanyl and tramadol	24	(4%)	8	(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 Data Sharing Committee

In 2019, during the first year of the administration of Governor Janet T. Mills, Opioid Response Director Gordon Smith convened state officials from each state department or office who had any responsibility for data relating to the opioid epidemic. Nearly two dozen individuals met and discussed the data each office had, whether there were any legal restrictions on the ability to share the data and what additional data each office wanted. Data experts associated with the Margaret Chase Smith Policy Center at the University of Maine also were included as Dr. Marcella Sorg and her team at the Center had been preparing fatal overdose reports for the Office of the Chief Medical Examiner for several years. By the conclusion of the first meeting, it was decided that the group would continue to meet and what became known as Maine's Opioid Data Sharing Committee (ODSC) was born. Remarkable, the Committee has met monthly (with some rare exceptions) for the past nearly four years.

Many of the individuals participating in the committee were, prior to 2019, participating in the Opioid Subcommittee of the State Epidemiological Outcomes Workgroup (SEOW). The SEOW work has been contracted to Public Consulting Group for several years and Tim Diomedes has led this work which was an important precedent to the work of the ODSC. Within a few months, it was agreed that the SEOW opioid subcommittee would be merged into the ODSC. Tim remains an active member of the Committee, which is very ably staffed by the data team at the Margaret Chase Smith Center noted above.

The ODSC is currently co-chaired by Rebecca Taylor, Deputy Director of Research and Evaluation in the DHHS Office of Behavioral Health, and Opioid Response Director Gordon Smith. Offices and departments active in the work of the committee include the Maine CDCP, the Office of Child and Family Services, the Office of MaineCare Services, the Office of Emergency Medical Services, the Maine Health Data Organization, the Northern New England Poison Control Center, the Maine Drug Enforcement Agency, and New England HIDTA (High Intensity Drug Trafficking Areas). The Committee has been fortunate to receive pro bono services from the accounting/consulting firm of Berry Dunn.

Among the many successful activities of the Committee is the website mainedrugdata.org built and operated by the University of Maine. This site is the repository of our monthly overdose reports and all other reports produced by the Committee and many other reports produced by other offices within state government. The committee was recently recognized by the Office of National Drug Control Policy (ONDCP) for its cutting-edge work in tracking nonfatal overdoses and including this metric in the monthly reports.

The Committee expects to continue to meet, virtually, the third Friday of every month from 9:00am to 10:30am. Meetings are open to the public.

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.

The Office of Attorney General supports ongoing 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.