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MAINE MONTHLY OVERDOSE REPORT

For September 2022

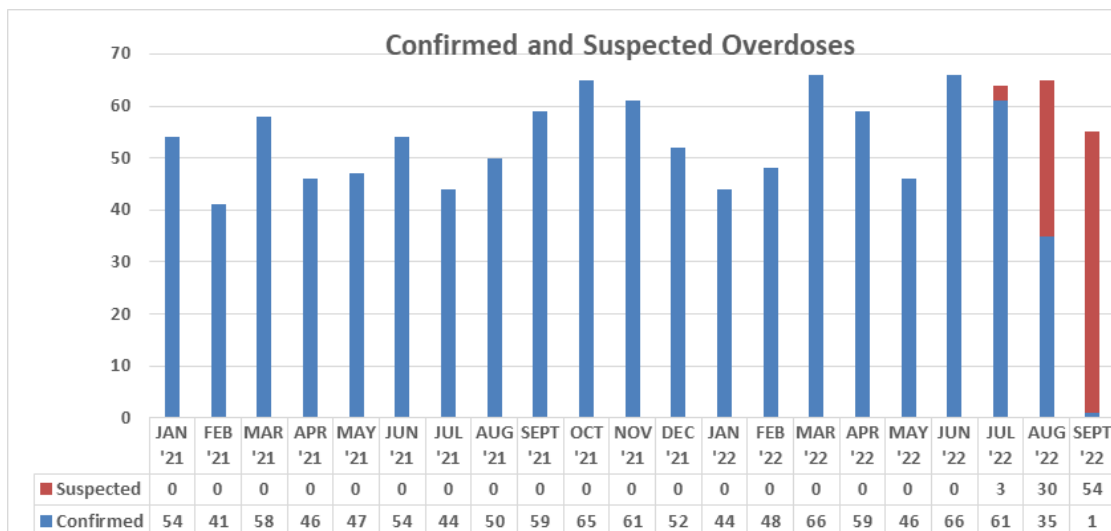
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Overview

This report documents suspected and confirmed fatal and nonfatal drug overdoses in Maine during September 2022 as well as for the period January 2021–September 2022 (Table 1). During September, the proportion of fatal overdoses averaged 6.1% of total overdoses. Monthly proportions of 2022 fatalities have fluctuated from a low of 5.1% in May 2022 to a high of 8.2% in April. So far for 2022, the total number of overdoses January–September is 9.3% higher than during the January–September 2021 (13.2% fatal and 9.0% nonfatal). During the period January–September 2022, fatal overdoses comprised 6.6% of all overdoses, just slightly higher than the 6.4% for the first nine 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 July, August, and September (see Figure 1).

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



The total number of reported fatal and nonfatal overdoses January through September 2022, 7724, is displayed in Table 1 in the bottom row: 513 (6.6%) confirmed and suspected fatal overdoses, 3444 (44.6%) nonfatal emergency department visits, 2082 (27%) nonfatal EMS responses not transported to the emergency department, 1635 (21.2%) reported community overdose reversals, and 50 (0.6%) law enforcement reversals in incidents that did not include EMS.

Table 1: Composite overdose totals by month, calendar months January 2021–September 2022, with updated community reversal and law enforcement totals for January–September 2022

	Nonfatal				Total nonfatal overdoses	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			
January 2021	270	164	127	0	561	54	615
February 2021	277	118	100	0	495	41	536
March 2021	329	172	156	2	659	58	717
April 2021	334	190	136	0	660	46	706
May 2021	409	163	100	1	673	47	720
June 2021	411	223	189	0	823	54	877
July 2021	482	225	167	0	874	44	918
August 2021	428	232	222	3	885	50	935
September 2021	473	234	276	2	985	59	1044
October 2021	383	246	208	2	839	65	904
November 2021	308	219	195	2	724	61	785
December 2021	344	198	176	11	729	52	781
2021 Total	4448 (46.6%)	238 (25.0%)	2052 (21.5%)	23 (0.2%)	8907 (93.4%)	631 (6.6%)	9538 (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	9	869	66	935
April 2022	290	177	189	7	663	59	722
May 2022	402	248	186	12	848	46	894
June 2022	482	250	177	11	920	66	986
July 2022	348	287	170	5	810	64	874
August 2022	385	272	241	1	899	65	964
September 2022	451	256	139	0	846	55	901
2022 YTD total	3444 (44.6%)	2082 (27.0%)	1635 (21.2%)	50 (0.6%)	7211 (93.4%)	513 (6.6%)	7724 (100.0%)

County Distribution of Fatal Overdoses

Table 2 shows the frequency distribution of fatal overdoses at the county level. The September 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 3 percentage points lower, Sagadahoc County is 2 percentage points lower, and York County is 2 percentage points lower than the 2020 census proportion. Penobscot County is 4 percentage points higher.

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

	% 2020 estimated Census population	Jan–Dec 2021 Est. N=631	Jan–Sept 2022 Est. N=513	Sept 2022 Est. N=55
Androscoggin	8%	69 (11%)	48 (9%)	3 (6%)
Aroostook	5%	39 (6%)	32 (6%)	3 (6%)
Cumberland	22%	114 (18%)	100 (19%)	13 (24%)
Franklin	2%	8 (1%)	12 (2%)	2 (4%)
Hancock	4%	22 (3%)	16 (3%)	4 (7%)
Kennebec	9%	64 (10%)	42 (8%)	3 (6%)
Knox	3%	11 (2%)	14 (3%)	3 (6%)
Lincoln	3%	16 (3%)	9 (2%)	0 (0%)
Oxford	4%	28 (4%)	21 (4%)	3 (6%)
Penobscot	11%	106 (17%)	75 (15%)	7 (13%)
Piscataquis	1%	11 (2%)	6 (1%)	0 (0%)
Sagadahoc	3%	7 (1%)	6 (1%)	1 (2%)
Somerset	4%	26 (4%)	26 (5%)	4 (7%)
Waldo	3%	15 (2%)	17 (3%)	1 (2%)
Washington	2%	25 (4%)	16 (3%)	2 (4%)
York	16%	70 (11%)	73 (14%)	6 (11%)

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 3 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 1 death in 2022, an increase of 2 percentage points in the proportion of those aged 18–39, a decrease of 3 percentage points in those aged 40–59, and a 3-percentage point increase in the proportion of those 60 and above. Note that other gender categories are not available in death certificate data.

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–Sept 2022 Est. N=513	Sep 2022 Est. N=55
Males	49%	451 (71%)	373 (73%)	44 (80%)
Under 18	19%	2 (<1%)	1 (<1%)	0 (0%)
18–39	26%	247 (39%)	208 (41%)	20 (36%)
40–59	27%	316 (50%)	239 (47%)	25 (45%)
60+	29%	66 (10%)	65 (13%)	10 (18%)

* 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 to 2 percentage points, compared to 2021. Out of 502 decedents for whom race was reported January through September 2022, 95% of the victims were identified as White, 2% as Black/African American, and 1% as American Indian/Alaska Native. Out of 499 decedents for whom Hispanic ethnicity status was reported, 2% 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 Est. N=627 Race† N=621 Ethnicity	Jan–Sept 2022 Race N=502 Ethnicity N=499	Sept 2022 Race N=54 Ethnicity N=54
White alone, non-Hispanic	91%	585 (93%)	476 (95%)	52 (96%)
Black/African American alone, non-Hispanic	2%	21 (3%)	12 (2%)	0 (0%)
American Indian/Alaska Native, non-Hispanic	1%	14 (2%)	6 (1%)	1 (2%)
Other race and 2+ races combined, non-Hispanic	7%	7 (1%)	8 (2%)	1 (2%)
Hispanic/Latinx alone or in combination	2%	10 (2%)	8 (2%)	1 (2%)

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

†Percentages may not total 100 due to rounding.

Out of the 513 cases for which military background was reported January–September 2022, 39 (8%) were identified as having a military background. Undomiciled or transient housing status was reported for 55 (11%) of the victims. The largest totals of undomiciled persons were found in Cumberland County (23, 42%) and Penobscot County (13, 24%).

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 513 confirmed or suspected fatal overdoses in 2022, 187 (36%) 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 61 (12%) 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, 26% of suspected and confirmed fatal overdose cases had naloxone administered at the scene by EMS, bystanders, and/or law enforcement. This rate is slightly lower than in 2021 (30%).

Of the 418 suspected or confirmed drug death cases with EMS involvement during 2022, 216 (52%) victims were already deceased when EMS arrived. In the remaining 202 (48%) cases, resuscitation was attempted either at the scene or presumably in the ambulance during transport to the emergency room. Of those 202 who were still alive when EMS arrived, 68 (34%) were transported, and 134 (66%) did not survive to be transported. Thus, out of 418 ultimately fatal cases with EMS response, only 68 (16%) 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–Sept 2022 Est. N=513	Sept 2022 Est. N=55
First Responder			
EMS response alone	26 (4%)	26 (5%)	4 (7%)
Law enforcement alone	108 (17%)	93 (18%)	8 (15%)
EMS and law enforcement	491 (78%)	392 (76%)	43 (78%)
Private transport to Emergency Dept.	8 (1%)	3 (1%)	0 (0%)
Naloxone administration reported at the scene	187 (30%)	132 (26%)	10 (18%)
Bystander only administered	36 (6%)	31 (6%)	3 (5%)
Law enforcement only administered	22 (3%)	23 (4%)	2 (4%)
EMS only administered	84 (13%)	38 (7%)	5 (9%)
EMS and law enforcement administered	20 (3%)	10 (2%)	0 (0%)
EMS and bystander administered	15 (2%)	21 (4%)	0 (0%)
Law enforcement and bystander administered	5 (1%)	5 (1%)	0 (0%)
EMS, bystander, and law enforcement administered	2 (<1%)	4 (1%)	0 (0%)
Naloxone administered by unspecified person	3 (<1%)	8 (2%)	1 (2%)
History of prior overdose	216 (34%)	187 (36%)	18 (33%)

Table 6 displays the frequencies of the most prominent drug categories causing death among confirmed drug deaths. As expected, within the 434 confirmed drug death cases so far in 2022, nonpharmaceutical fentanyl was the most frequent cause of death mentioned on the death certificate at 344 (79%).

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 3% of 2022 deaths, the same as 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 434 confirmed deaths in 2022, there were 28 cases (6%) with xylazine listed in addition to fentanyl as a cause of death, and 7 cases (2%) 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 139 (32%) of the confirmed fatal overdoses in 2022, an increase from 27% in 2021; 113 (81%) of the methamphetamine deaths also involved fentanyl as a co-intoxicant cause of death. Cocaine-involved fatalities constituted 123 (28%) of confirmed cases in 2022, a slight increase from 25% in 2021. Fentanyl is mentioned as a cause in combination with cocaine in 100 (81%) of 2022 cocaine cases. Cocaine and methamphetamine are named together on 32 (7%) death certificates in 2022, in most cases (26, 81%) combined co-intoxicants 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–Sept 2022 N = 434	Sept 2022 N = 1
Fentanyl or fentanyl analogs	489 (77%)	344 (79%)	1 (100%)
Heroin	22 (3%)	12 (3%)	0 (0%)
Cocaine	156 (25%)	123 (28%)	1 (100%)
Methamphetamine	172 (27%)	139 (32%)	0 (0%)
Pharmaceutical opioids**	130 (21%)	90 (21%)	0 (0%)
Fentanyl and heroin	20 (3%)	12 (3%)	0 (0%)
Fentanyl and cocaine	127 (20%)	100 (23%)	1 (100%)
Fentanyl and methamphetamine	133 (21%)	113 (26%)	0 (0%)
Fentanyl and xylazine	53 (8%)	28 (6%)	0 (0%)
Fentanyl and tramadol	24 (4%)	7 (2%)	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

Somerset County Jail Extended-Release Buprenorphine Pilot Project

Earlier this year, the Somerset County Jail began a one-year pilot project to expand access for jail residents to OUD treatment using extended-release buprenorphine (XRB). XRB is a monthly injection that provides OUD treatment for at least 28 days. While the cost of the medication is substantial, the project leaders believe these costs will be largely offset by the substantial reduction in staffing time. Using the extended-release medication also enables jail residents to continue to receiving treatment for up to 28 days post-release, giving them more time to connect with community treatment resources.

Somerset County Jail is the first correctional facility in Maine and only the second in the nation to offer a comprehensive XRB treatment plan.

Somerset County Sheriff Dale Lancaster, Jail Programs Manager Michael Welch and Maine Medical Center's Alane O'Connor, DNP, and many other members of the medical and corrections team developed the project over a year's time, with encouragement and financial support from the state's Director of Opioid Response and the Office of Behavioral Health

Financial support during the planning phase was also provided by HRSA through an RCORP project provided to partners in Somerset County. This grant supported Dr. O'Connor's time to implement and evaluate the pilot and write the XRB treatment manual. An article about the project is the featured HRSA RCORP project in HRSA's monthly publication in November. In addition, the project's leaders presented a review of the project during Governor Mills' 4th Annual Opioid Response Summit in Bangor in July 2022.

As part of its work, the Somerset County Jail team is writing a best practices manual for the use of XRB in a correctional setting. Upon completion, the manual will be available publicly.

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 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.