12-2-2023

Maine Monthly Overdose Report for October 2023

Marcella H. Sorg

Daniel S. Soucier

Yimin Wang

MAINE MONTHLY OVERDOSE REPORT

For October 2023

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

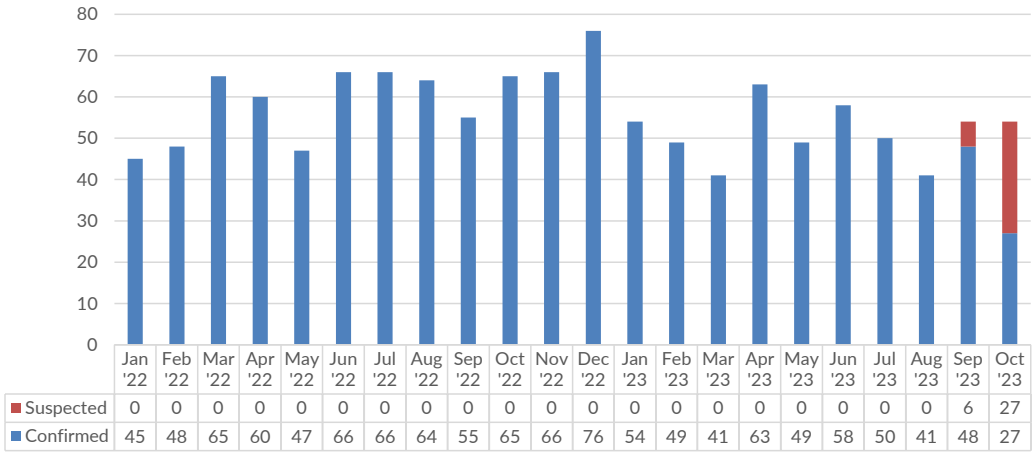
Overview

This report documents suspected and confirmed fatal and nonfatal drug overdoses in Maine during October 2023 as well as for the period January 2022–October 2023 (Table 1). During October 2023, the proportion of fatal overdoses averaged 7.1% of total overdoses. Monthly proportions of 2023 fatalities have fluctuated from a low of 4.2% in March to a high of 8.1% in April. During the period January–October 2023, fatal overdoses constituted 6.2% of all overdoses, lower than the 6.9% for the year in 2022. The total number of confirmed and suspected fatal overdoses January–October, 2023 is 513, 11.7% lower than the total confirmed fatal overdoses for the same period in 2022, 581. The total number of nonfatal overdoses January-October, 2023 is 7,746, 6.2% lower than the total confirmed nonfatal overdoses for the same period in 2022, 8261.

Data derived from multiple statewide sources were compiled and deduplicated to compute fatal and nonfatal overdose totals (Table 1). 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 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 September and October (see Figure 1).

The total number of fatal and reported nonfatal overdoses for October 2023, 758, is displayed in Table 1 near the bottom row. Of those 758, there were 54 (7.1%) confirmed and suspected fatal overdoses, 313 (41.3%) nonfatal emergency department visits, 229 (30.2%) nonfatal EMS responses not transported to the emergency department, 147 (19.4%) reported community overdose reversals, and 15 (2.0%) law enforcement reversals in incidents that did not include EMS.

Figure 1. Suspected and confirmed fatal overdoses, all drugs, January 2022–October 2023



	Jan '22	Feb '22	Mar '22	Apr '22	May '22	Jun '22	Jul '22	Aug '22	Sep '22	Oct '22	Nov '22	Dec '22	Jan '23	Feb '23	Mar '23	Apr '23	May '23	Jun '23	Jul '23	Aug '23	Sep '23	Oct '23
Suspected	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	27
Confirmed	45	48	65	60	47	66	66	64	55	65	66	76	54	49	41	63	49	58	50	41	48	27

Table 1: Composite reported overdose totals, all drugs, January 2022–October 2023

	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 2022	295	206	178	39	718	45	763
February 2022	333	185	153	37	708	48	756
March 2022	458	201	202	30	891	65	956
April 2022	290	178	189	26	683	60	743
May 2022	402	248	186	41	877	47	924
June 2022	482	250	177	44	953	66	1019
July 2022	347	287	183	40	857	66	923
August 2022	385	272	255	37	949	64	1013
September 2022	458	256	153	33	900	55	955
October 2022	283	238	177	27	725	65	790
November 2022	287	206	200	20	713	66	779
December 2022	362	212	198	14	786	76	862
2022 total	4382	2739	2251	388	9760	723	10483
% of 2022 total	(41.8%)	(26.1%)	(21.5%)	(3.7%)	(93.1%)	(6.9%)	(100%)
January 2023	296	219	184	44	743	54	797
February 2023	348	226	192	27	793	49	842
March 2023	382	256	237	54	929	41	970
April 2023	270	218	202	27	717	63	780
May 2023	295	221	165	30	711	49	760
June 2023	378	228	219	26	851	58	909
July 2023	339	248	173	18	778	50	828
August 2023	330	247	152	14	743	41	784
September 2023	390	231	141	15	777	54	831
October 2023	313	229	147	15	704	54	758
2023 YTD total	3341	2323	1812	270	7746	513	8259
% of 2023 YTD total	(40.5%)	(28.1%)	(21.9%)	(3.3%)	(93.8%)	(6.2%)	(100%)

Law Enforcement Response to Fatal and Nonfatal Overdose Incidents

Due to the method we use to deduplicate nonfatal overdose incidents to derive a composite number of overdoses for the month, the total amount of activity of law enforcement officials is underrepresented in the Table 1. The process used to deduplicate overdoses begins by removing fatal overdoses from the emergency department and EMS overdose incidents. Then the number of patients transported to emergency departments by Maine EMS are removed from the EMS overdose incidents. Finally, EMS involvement and fatal overdose incidents are removed from law enforcement responses.

Table 2 shows the public safety response to fatal and nonfatal overdose events in January–October 2023 as well as 2022. During January–October 2023, law enforcement officers responded to a reported 1,399 overdose incidents (479 fatal; 920 nonfatal), and Maine EMS responded to a reported 7,958 incidents (414 fatal; 7,544 nonfatal). During 2022 as a whole, law enforcement officers responded to a reported 2,143 incidents (672 fatal; 1,471 nonfatal), and Maine EMS responded to a reported 9,958 incidents (582 fatal; 9,376 nonfatal).

Table 2: Fatal and nonfatal overdose emergency response counts from law enforcement and EMS, including overlapping cases

	Fatal overdose response Jan–Dec 2022	Nonfatal overdose response Jan–Dec 2022	Total overdose response Jan–Dec 2022	Fatal overdose response Jan–Oct 2023	Nonfatal overdose response Jan–Oct 2023	Total overdose response Jan–Oct 2023
Maine EMS	582	9376	9958	414	7544	7958
Law Enforcement	672	1471	2143	479	920	1399

*Please note numbers will fluctuate from month to month as public safety agencies catch up their reporting. Due to methodological convention, alcohol-only cases are excluded from this table. However, we recognize that alcohol is a large part of substance misuse epidemic. Cases with both drugs and alcohol are included.

County Distribution of Suspected Nonfatal Overdoses with EMS Response

Table 3 shows the frequency distribution of nonfatal overdoses to which EMS responded at the county level. Overdose reversal totals reported by community partners and emergency departments are not categorized by county; only EMS case data include county frequencies. The October 2023 monthly totals in the far right column can be compared to the percentage of the census population on the far left or the percentage of nonfatal overdoses for the year in 2022, or for the year-to-date in 2023. Caution must be exercised viewing single counties, especially for a single month, due to small numbers. These may fluctuate randomly, without reflecting any statistically significant trend.

Table 3: County of EMS incident among suspected and confirmed nonfatal overdoses

	% 2020 estimated Census population	Jan–Dec 2022 N = 9377		Jan-Oct 2023 Est. N = 7544		Oct 2023 Est. N = 743	
Androscoggin	8%	1055	(11%)	777	10%	68	9%
Aroostook	5%	490	(5%)	371	5%	50	7%
Cumberland	22%	2194	(23%)	1727	23%	160	22%
Franklin	2%	140	(1%)	120	2%	16	2%
Hancock	4%	287	(3%)	224	3%	17	2%
Kennebec	9%	922	(10%)	749	10%	63	8%
Knox	3%	245	(3%)	260	3%	31	4%
Lincoln	3%	162	(2%)	157	2%	29	4%
Oxford	4%	410	(4%)	302	4%	32	4%
Penobscot	11%	1293	(14%)	1081	14%	99	13%
Piscataquis	1%	90	(1%)	93	1%	11	1%
Sagadahoc	3%	130	(1%)	110	1%	7	1%
Somerset	4%	392	(4%)	374	5%	42	6%
Waldo	3%	199	(2%)	164	2%	14	2%
Washington	2%	221	(2%)	152	2%	14	2%
York	16%	1147	(12%)	883	12%	90	12%

*EMS nonfatal overdose counts include incidents where a patient may have died after admission to the ED. Please note numbers will fluctuate from month-to-month as public safety agencies catch up their reporting. Due to methodological convention, alcohol-only cases are excluded from this table. However, we recognize that alcohol is a large part of substance misuse epidemic. Cases with both drugs and alcohol are included.

January–October 2023 percentage totals for most counties fall within 0 to 1 percentage points of the 2020 census distribution. Penobscot County is 3 percentage points higher than the 2020 census proportion. Androscoggin County is 2 percentage points higher than the 2020 census proportion. York County is 4 percentage points lower, and Sagadahoc County is 2 percentage points lower than the 2020 census proportion.

County Distribution of Suspected and Confirmed Fatal Overdoses

Table 4 shows the frequency distribution of fatal overdoses at the county level. The October 2023 monthly totals in the far right column can be compared either to the percentage of the census population in the far-left column or the percentage of all Maine fatal overdoses for the 2022 year as a whole, or to the year-to-date total for 2023. Caution must be exercised when viewing single counties with small numbers for a single month. These may fluctuate randomly, without reflecting any significant statistical trend. The 2023 percentages for most counties fall within 0 to 2 percentage points of the 2020 census distribution. Penobscot County and Androscoggin County are 4 percentage points higher than the 2020 Census proportions. Cumberland County is 3 percentage points lower and York County is 5 percentage points lower than the 2020 Census proportions.

Table 4: County of death among suspected and confirmed fatal overdoses

	% 2020 estimated Census population	Jan–Dec 2022 N = 723		Jan-Oct 2023 Est. N = 512		Oct 2023 Est. N = 54	
Androscoggin	8%	69	(10%)	60	12%	9	17%
Aroostook	5%	47	(7%)	33	6%	6	11%
Cumberland	22%	134	(19%)	98	19%	9	17%
Franklin	2%	13	(2%)	6	1%	0	0%
Hancock	4%	24	(3%)	17	3%	3	6%
Kennebec	9%	54	(7%)	52	10%	3	6%
Knox	3%	20	(3%)	13	3%	1	2%
Lincoln	3%	14	(2%)	5	1%	0	0%
Oxford	4%	36	(5%)	18	4%	1	2%
Penobscot	11%	109	(15%)	79	15%	7	13%
Piscataquis	1%	9	(1%)	14	3%	2	4%
Sagadahoc	3%	11	(2%)	5	1%	0	0%
Somerset	4%	35	(5%)	27	5%	2	4%
Waldo	3%	21	(3%)	9	2%	4	8%
Washington	2%	24	(3%)	18	4%	1	2%
York	16%	103	(14%)	58	11%	5	9%

Age and Sex Distribution of Fatal Overdose Victims

Table 5 displays the age and sex composition of the October 2023 fatal overdose population, the 2022 and 2023 year-to-date fatal overdose population, and the 2020 estimated census population. When comparing the October 2023 data with 2023 year-to-date and 2022 data, as well as the census population proportion, caution must be exercised as the small number of cases in each month is vulnerable to random fluctuation that may not reflect a significant statistical trend. The cumulative proportion of males is the same in 2023 (73%) as in 2022 (73%). The cumulative age distribution for 2023 compared to 2022 shows no change in the proportion of deaths among those under 18, a decrease of 4 percentage points in the proportion of those aged

18–39, an increase of 4 percentage point in those aged 40–59, and no change in the proportion of those 60 and above.

Table 5: Decedent reported age group and sex among suspected and confirmed fatal overdoses*

	% 2020 estimated Census population	Jan–Dec 2022 N = 723		Jan–Oct 2023 Est. N = 513		Oct 2023 Est. N = 54	
Males	49%	527	(73%)	375	73%	37	69%
Under 18	19%	3	(<1%)	3	1%	1	2%
18–39	26%	295	(41%)	190	37%	19	35%
40–59	27%	333	(46%)	254	50%	25	46%
60+	29%	92	(13%)	66	13%	9	17%

*Percentages may not total 100 due to rounding.

Table 6 displays the reported race and ethnicity of confirmed and suspected fatal overdoses in 2022 and 2023 year-to-date compared to the 2020 census population. Note that race and ethnicity are not finalized until the full death certificate is entered into Vital Records, and a small number of decedents' records currently lack information about these variables. Out of 512 decedents for whom race was reported January through October 2023, 89% of the victims were identified as White, 4% as Black/African American, and 2% as American Indian/Alaska Native. Out of 500 decedents for whom Hispanic ethnicity status was reported, 1% were identified as Hispanic.

Table 6: Decedent race and ethnicity among suspected and confirmed fatal overdoses*

	% 2020 Estimated Census Population: Race & Hispanic/ Latinx Ethnicity	Jan–Dec 2022 Race N = 720 Ethnicity N = 706		Jan–Oct 2023 Race Est. N=512 Ethnicity Est. N=500		Oct 2023 Race Est. N = 54 Ethnicity Est. N=51	
White alone, non-Hispanic	91%	670	(93%)	454	89%	44	81%
Black/African American alone, non-Hispanic	2%	17	(2%)	21	4%	2	4%
American Indian/Alaska Native, non-Hispanic	1%	14	(2%)	9	2%	1	2%
Other race and 2+ races combined, non-Hispanic	7%	11	(2%)	11	2%	3	6%
Hispanic/Latinx alone or in combination	2%	7	(1%)	5	1%	1	2%

*Race and ethnicity data for some cases are unavailable until drug deaths are confirmed. †Percentages may not total 100 due to rounding.

Military Status and Housing Stability of Fatal Overdose Victims

Out of the 513 cases for which military background was reported January–October 2023, 28 (5%) were identified as having a military background. Out of the 54 cases in October 2023 where military background was reported, 2 (4%) were identified as having a military background.

Of the 513 total suspected and confirmed fatal overdose cases year-to-date in 2023, undomiciled or transient housing status was reported for 57 (11%) of victims. Among those 57, the largest proportions of undomiciled persons were found in Cumberland County (19, 33%), Penobscot County (15, 26%), Androscoggin County (8, 14%) and Kennebec County (5, 9%). In October 2023, 5 decedents (9%) were identified as undomiciled.

Basic Incident Patterns of Fatal Overdoses

Table 7 reports some of the basic incident patterns for fatal overdoses. October 2023 can be compared to either 2023 year-to-date or 2022 as a whole. Caution must be exercised interpreting a single month of data as numbers may fluctuate randomly and not reflect a statistically significant trend. In addition, data totals may change slightly as suspected cases are confirmed or eliminated. Both EMS and police responded together to most fatal overdoses (74%) in 2023. Law enforcement was more likely to respond to a scene alone (19%) than EMS (6%). The overwhelming majority (93%) 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 2023, 178 (35%) 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 69 (13%) of the 2023 fatal overdoses, higher than 2022 (11%), 2021 (9%), and 2020 (4%). Often, bystanders or witnesses administered naloxone in addition to EMS and/or law enforcement. During 2023, 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%) and the same as in 2022 (25%).

Of the 412 suspected or confirmed drug death cases with EMS involvement during 2023, 232 (56%) victims were already deceased when EMS arrived. In the remaining 180 (44%) cases, resuscitation was attempted either at the scene or presumably in the ambulance during transport to the emergency room. Of those 180 who were still alive when EMS arrived, 53 (29%) were transported, and 126 (70%) did not survive to be transported and 1 had an unknown status. Thus, out of 412 ultimately fatal cases with EMS response, only 53 (13%) remained alive long enough to be transported but died during transport or at the emergency room. This outcome 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, administer naloxone, and call 911.

Table 7: Incident characteristics among suspected and confirmed fatal overdoses

	Jan–Dec 2022 N = 723		Jan–Oct 2023 Est. N = 513		Oct 2023 Est N = 54	
EMS response alone	38	(5%)	31	6%	3	6%
Law enforcement alone	131	(18%)	97	19%	8	15%
EMS and law enforcement	541	(75%)	381	74%	42	78%
Private transport to Emergency Dept.	13	(2%)	2	<1%	0	0%
Naloxone administration reported at the scene	182	(25%)	129	25%	10	19%
Bystander only administered	44	(6%)	30	6%	2	4%
Law enforcement only administered	31	(4%)	13	3%	2	4%
EMS only administered	49	(7%)	37	7%	3	6%
EMS and law enforcement administered	11	(2%)	11	2%	1	2%
EMS and bystander administered	26	(4%)	33	6%	3	6%
Law enforcement and bystander administered	5	(1%)	10	2%	1	2%
EMS, bystander, and law enforcement administered	6	(1%)	4	1%	1	2%
Naloxone administered by unspecified person	0	(0%)	1	<1%	0	0%
History of prior overdose	269	(37%)	178	35%	18	33%

Table 8 displays the frequencies of the most prominent drug categories causing death among confirmed drug deaths. As expected, within the 480 confirmed drug death cases so far in 2023, nonpharmaceutical fentanyl was the most frequent cause of death, mentioned on the death certificate of 373 (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 11 (2%) of 2023 deaths. Xylazine and nonpharmaceutical tramadol were identified as co-intoxicants with fentanyl for the first time in 2021. Among 480 confirmed deaths in 2023, there were 41 cases (9%) with xylazine listed in addition to fentanyl as a cause of death, and 3 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. Cocaine-involved fatalities constituted 173 (36%) of confirmed cases in 2023, an increase from 29% in 2022. Fentanyl is mentioned as a cause in combination with cocaine in 143 cases, 83% of 2023 cocaine cases. Methamphetamine was cited as a cause of death in 151 (31%) of the confirmed fatal overdoses in 2023, compared to 32% in 2022; 124 (82%) of the methamphetamine deaths also involved fentanyl as a co-intoxicant cause of death. Cocaine and methamphetamine are named together on 38 (8%) death certificates in 2023, in most of those cases (32, 84%) as co-intoxicants of fentanyl.

Table 8: 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 2022 N = 723		Jan–Oct 2023 Est. N = 480		Oct 2023 Est. N = 27	
Fentanyl or fentanyl analogs	560	(77%)	373	78%	17	63%
Heroin	19	(3%)	11	2%	1	4%
Cocaine	213	(29%)	173	36%	12	44%
Methamphetamine	234	(32%)	151	31%	8	30%
Pharmaceutical opioids**	156	(22%)	89	19%	6	22%
Fentanyl and heroin	18	(2%)	11	2%	1	4%
Fentanyl and cocaine	171	(24%)	143	30%	9	33%
Fentanyl and methamphetamine	189	(26%)	124	26%	5	19%
Fentanyl and xylazine	46	(6%)	41	9%	2	7%
Fentanyl and tramadol	10	(1%)	3	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

Maine Recovery Friendly Workplace Program

The State of Maine, through the Office of Behavioral Health, recently contracted with Pinetree Institute to pilot Recovery Friendly Workplace programming in the state. The two-year contract provides up to $600,000 from the Opioid Prevention and Treatment Fund to encourage healthy and safe environments where employers, employees, and communities can collaborate to create positive change and eliminate barriers to employment for those individuals impacted by addiction. The program is intended to ensure all Maine employers have access to training, technical assistance, and recovery support resources necessary to support employees and/or job seekers who may be struggling either directly or indirectly with issues related to SUD and recovery. The program is advised by an advisory committee of over twenty leaders in various segments of Maine's business community. The committee had its initial meeting on November 28. It was announced at the meeting that LePage Bakery in Lewiston has been designated as the first certified Recovery Friendly Workplace in Maine under the new program.

The Vision

Recovery Friendly Workplaces (RFWs) support their communities by recognizing recovery from a substance use disorder as a strength and by working intentionally with people in recovery. The benefits include

- access to highly skilled talent
- increased retention and lower absenteeism
- increased brand equity
- healthier workforce

There is no cost associated with this program. Reach out to schedule an appointment with a Maine RFW business advisory by contacting: info@rfwmaine.org. For further information, visit the new RFW Maine website at www.rfwmaine.org. The program is also partnering with Maine's network of 17 Recovery Community Centers, all of which will be active supporters of the program and assist to grow the number of employers who apply to be certified as a Recovery Friendly Workplace.

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, and as occasional lagged EMS, ED, and ODMAP data totals are finalized. 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 because of random variation. The monthly reports are 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 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. 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 and comprehensive toxicology tests. 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 is occurring at about 6–8 weeks after death, and occasionally longer.

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. These totals also do not include Maine residents who die in other states. For these reasons, totals 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.

1 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 also supports university programs involving fatal and nonfatal overdoses surveillance and enables the collection of nonfatal metrics included in this report. The conclusions in this report do not necessarily represent those of the U.S. Centers for Disease Control and Prevention.