

MAINE MONTHLY OVERDOSE REPORT

For November 2021

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Note: The timing of the monthly reports has been substantially delayed during the last several months due to pandemic-related issues. Toxicology reports to the Office of Chief Medical Examiner (OCME) are currently delayed, returning to the Office of Chief Medical Examiner as much as 10 weeks following death; this is 3 to 4 four times longer than the pre-pandemic turnaround time. Toxicology testing is done at a national reference laboratory out of state, and they have informed the OCME that these issues are being addressed but will likely continue for the near future. The toxicology report is needed to confirm that a case is an overdose, what substances are involved, and determine cause and manner of death. Rather than wait for the completion of the majority of cases, we are releasing monthly reports more quickly using “suspected” overdose total.

Overview

During November there were a total of 773 fatal and nonfatal overdoses, including 64 (8%) confirmed and suspected fatal overdoses and 709 (92%) nonfatal overdoses. The proportion of fatal to nonfatal overdoses decreased from 9% to 7% between January and November. Deduplicated data derived from multiple statewide sources were compiled to reach these totals. These sources include nonfatal overdose incidents reported by hospital emergency rooms (ED), emergency medical service (EMS) responses without transport to the ED; overdose reversals reported by law enforcement; and overdose reversals reported by community members or agencies receiving state-distributed naloxone. There are 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.

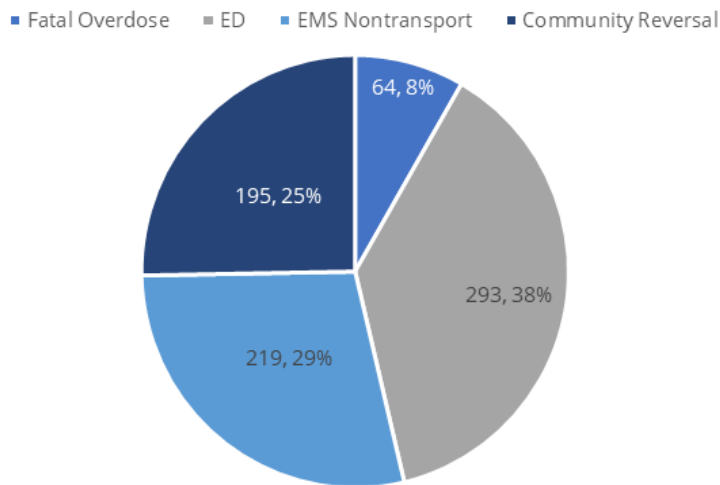
Composite Total of Fatal and Nonfatal Overdoses for November

During November 2021, there were an estimated 773 fatal and nonfatal drug overdoses statewide (Figure 1), of which 64 (8%) were confirmed or suspected fatal overdoses. The remaining 709 (92%) were reported nonfatal overdoses: 293 (38%) emergency department visits; 219 (29%) EMS patients who were not transported to the emergency room; and 195 (25%) reversals reported by community members to the Maine Naloxone Distribution Initiative. There were also an additional unknown number of nonfatal overdoses for which 911 was not called and for which no reversal report was provided.

The cumulative number of reported fatal and nonfatal overdoses for January through November, 8619, is displayed in Table 1 in the bottom row: 578 (7%) fatal overdoses; 3967 (46%) nonfatal emergency department visits; 2186 (25%) nonfatal EMS responses not transported to the emergency department; 1876 (22%) reported community reversals; and an estimated 12 (1%) law enforcement reversals in cases that did not include EMS¹. As mentioned above, there were

1 Note that the total of law enforcement reversals without EMS does not include many nonfatal overdoses in which both law enforcement and EMS administered naloxone. In many overdoses, bystanders may be the first to administer naloxone, followed by either law enforcement and/or EMS.

Figure 1: Fatal and nonfatal overdoses in November 2021



undoubtedly additional overdose incidents that were not reported, for which the total number is unknown. Additionally, an unknown number of the reported community reversals may overlap with nonfatal EMS or law enforcement responses. The deaths, nonfatal emergency department visits, and nonfatal and non-transported EMS responses have been deduplicated.

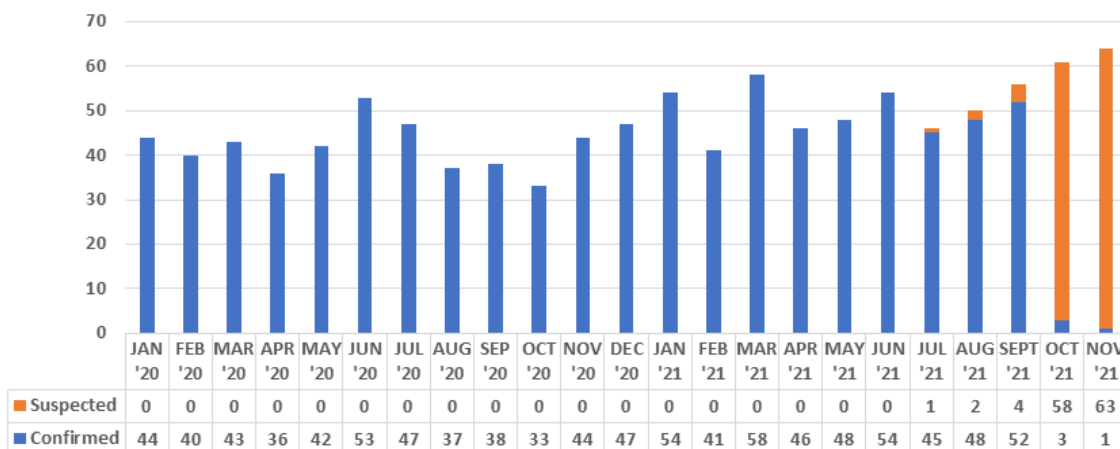
November included the greatest monthly number of fatal overdoses in 2021, but the increase has not been steady or consistent. Nonfatal overdoses for November are down from last month but still greater than

the beginning of the year. Total fatal overdoses have fluctuated up and down, ranging from lows of 41 in February and 46 in April and July to highs of 61 in October and 64 in November. As can be seen in Table 1, total emergency department visits fluctuated as well from a low of 263 in January to highs of 465 in July and 454 in September. The total EMS responses in which the patient declined transport to the emergency department has fluctuated fairly widely from lows

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

Month	Fatal	Nonfatal				Total overdoses
		Emergency department	EMS not transported to emergency dept.	Community reversals with naloxone	Law enforcement reversals with naloxone and without EMS ¹	
January	54	263	164	127	0	608
February	41	265	118	100	0	524
March	58	324	172	156	2	712
April	46	401	190	136	0	773
May	48	325	163	100	1	637
June	54	404	223	189	0	870
July	46	465	225	167	0	903
August	50	419	232	222	3	926
September	56	454	234	276	2	1024
October	61	354	246	208	2	870
November	64	293	219	195	2	773
Total	578	3967	2186	1876	12	8619
Percentage of total	7%	46%	25%	22%	<1%	100%

Figure 2: Number of suspected and confirmed fatal overdoses by month



of 118 in February and 163 in May to highs of 234 in September and 246 in October, but then dropped to 219 in November. The number of community-reported reversals has ranged from lows of 100 in both February and May to highs of 222 in August and 276 in September. The combined total of nonfatal overdoses has ranged from lows of 483 in February and 554 in January to highs of 876 in August and 966 in September.

Fatal Overdoses

The November 2021 total of 64 fatal drug overdoses consists of 1 confirmed drug deaths and 63 suspected drug deaths. Figure 2 shows the considerable monthly fluctuation of monthly death totals since January 2020 at the start of the pandemic. Although the 2020 monthly average is 42, the range extended from 34 to 53. The average so far for 2021 is 52.7, and the range is 41 to 64.

Table 2 shows the frequency of overdose deaths at the county level. The November 2021 totals can be compared either to the percentage of the census population on the far left or the percentage of all Maine drug deaths for 2019, 2020, and January–November 2021. Caution must be exercised viewing single counties with the small numbers for a single month. Especially considering totals under 10, they may fluctuate randomly, without reflecting any significant statistical trend.

The cumulative percentages of deaths for many counties for 2021 (January–November) fall within 0%–1% of the 2019 census distribution, including those of Aroostook, Franklin, Hancock, Kennebec, Knox, Lincoln, Oxford, Piscataquis, Somerset, and Waldo. Counties that are 2% or more higher than the census proportions include Androscoggin (+4%), Penobscot (+6%), and Washington (+5%). Counties that are 2% or more lower than the census proportion include Cumberland (-4%), Sagadahoc (-2%), and York (-4%).

Table 3 displays the age and gender composition of the monthly fatal overdose population. The cumulative proportion of males has stayed roughly the same since 2019, hovering around 70%. For January–November 2021, it was 406 (70%), which is slightly lower than 71% in 2020 and slightly higher than the 68% in 2019. In November, it increased to 73%. The cumulative age distribution January–November 2021 compared to 2020 and 2019 shows increasingly more decedents in older

Table 2: County of death among suspected and confirmed overdoses

County	Percentage 2019 Census population	Jan-Dec 2019 N=380	Jan-Dec 2020 N=504	Cumulative Jan-Nov 2021 Est. N=578	November 2021 Est. N=64
Androscoggin	8%	33 (9%)	52 (10%)	68 (12%)	5 (8%)
Aroostook	5%	14 (4%)	17 (3%)	32 (6%)	7 (11%)
Cumberland	22%	100 (26%)	97 (19%)	102 (18%)	7 (11%)
Franklin	2%	5 (1%)	8 (2%)	7 (1%)	1 (2%)
Hancock	4%	9 (2%)	13 (3%)	20 (4%)	1 (2%)
Kennebec	9%	42 (10%)	49 (10%)	59 (10%)	3 (5%)
Knox	3%	7 (2%)	16 (3%)	11 (2%)	1 (2%)
Lincoln	3%	11 (3%)	9 (2%)	15 (3%)	0 (0%)
Oxford	4%	9 (2%)	15 (3%)	27 (5%)	7 (11%)
Penobscot	11%	53 (14%)	94 (19%)	98 (17%)	19 (30%)
Piscataquis	1%	3 (1%)	10 (2%)	11 (2%)	2 (3%)
Sagadahoc	3%	8 (2%)	8 (2%)	8 (1%)	2 (3%)
Somerset	4%	16 (4%)	13 (3%)	22 (4%)	4 (6%)
Waldo	3%	3 (1%)	9 (2%)	14 (2%)	0 (0%)
Washington	2%	10 (3%)	20 (4%)	21 (7%)	1 (2%)
York	15%	57 (15%)	74 (15%)	63 (11%)	4 (6%)

Table 3: Decedent characteristics among suspected and confirmed overdoses

Characteristics	Jan-Dec 2019 N=380	Jan-Dec 2020 N=504	Cumulative Jan-Nov 2021 Est. N=578	November 2021 Est. N=64
Males	258 (68%)	357 (71%)	406 (70%)	47 (73%)
Under 18	0 (0%)	2 (<1%)	2 (<1%)	1 (2%)
18-39	171 (45%)	213 (42%)	232 (40%)	25 (39%)
40-59	175 (46%)	235 (47%)	284 (49%)	33 (52%)
60+	33 (9%)	54 (11%)	60 (10%)	5 (8%)

categories. The percentage of those 18–39 decreased overall by 5%. The percentage of those 40–59 and those over 60 rose by 3% and 1%, respectively.

During January through November 2021, out of 578 confirmed and suspected fatal overdoses for which race was reported, 540 (93%) of the victims were identified as White, 20 (4%) as Black or African American, and 11 (2%) as American Indian/Alaska Native. Out of 568 decedents for whom Hispanic ethnicity status was reported, 560 (99%) were reported as not Hispanic, and 8 (1%) were identified as Hispanic. Out of the 578 cases for which military background was reported, 40 (7%) were identified as having a military background. A history of prior overdose was reported for 193 (33%) of the victims. Transient housing status was reported for 56 (10%) of the victims.

Table 4 reports some of the basic incident patterns for fatal overdoses. Roughly similar to 2020, during January through November of 2021, both EMS and police responded to most fatal

Table 4: Event characteristics among suspected and confirmed fatal overdoses

	Jan-Dec 2020 N=504	Cumulative Jan-Nov 2021 Est. N=578	November 2021 Est. N=64
Manner of death (suspected or confirmed)			
Accident	457 (91%)	551 (95%)	62 (97%)
Suicide	33 (7%)	15 (3%)	2 (3%)
Undetermined	14 (3%)	6 (1%)	0 (0%)
First Responder			
EMS response alone	28 (6%)	24 (4%)	4 (6%)
Law enforcement alone	107 (21%)	98 (17%)	9 (14%)
EMS and law enforcement	365 (72%)	449 (78%)	50 (78%)
Naloxone Administration			
Naloxone administration at scene and/or (presumably) in ambulance during transport to emergency room	127 (33%)	207 (36%)	23 (36%)
Naloxone administration reported at the scene	83 (22%)	176 (31%)	20 (31%)
Bystander only administered	11 (2%)	34 (6%)	6 (9%)
Law enforcement only administered	8 (2%)	19 (3%)	2 (3%)
EMS only administered	55 (11%)	81 (14%)	8 (13%)
EMS and law enforcement administered	4 (1%)	20 (4%)	2 (3%)
EMS and bystander administered	8 (2%)	15 (3%)	1 (2%)
Law enforcement and bystander administered	0 (0%)	6 (1%)	1 (2%)
EMS, bystander, and law enforcement administered	-	1 (<1%)	0 (0%)

overdoses (78%). Law enforcement was more likely to respond to a scene alone (17%) than EMS (4%). The overwhelming majority (95%) of drug overdoses were certified as, or suspected of being, accidental manner of death.

During January through November 2021, 36% of fatal overdose cases had naloxone administered at the scene or in the ambulance, whether by EMS, bystanders, or law enforcement. This is higher than the 33% reported as administered by EMS, bystanders, or law enforcement at the scene in 2020 and considerably higher than the 28% found in the toxicology reports for 2020 fatal overdose victims.² This increase may be due to the greater availability of police trained to administer it through programs such as the Attorney General's Naloxone Distribution Initiative. It may also be due to the greater availability in the community due to the Maine Naloxone Distribution Initiative. Although most cases had bystanders present at the scene by the time first responders arrived, the details about who may have been present at the time of the overdose were usually unclear. However, bystanders, including family and friends, administered naloxone for 11% of the fatal overdoses, often in addition to EMS and/or law enforcement. The 2020 drug death report documents only 4% of victims who had received bystander-administered naloxone.

Based on 473 suspected or confirmed drug death cases with EMS involvement during January to November, 232 (49%) victims were already deceased when EMS arrived. In the remaining 241 (51%) cases, resuscitation was attempted either at the scene or in the ambulance during transport to the emergency room. Of the 241 cases who were still alive when EMS arrived, 68

² Note that toxicology samples are taken at a slightly later time than the scene visit, and values for naloxone may be lower.

were transported, and 173 did not survive to be transported. Thus, out of 473 fatal cases with EMS response, 68 (14%) remained alive long enough to be transported, but died during transport or at the emergency room.

Table 5 displays the frequencies of the most prominent drug categories causing death among confirmed drug deaths. As expected, nonpharmaceutical fentanyl was the most frequent cause of death mentioned on the death certificate so far for 2021 at 341 (76%), which is 9% higher than in 2020 (67%).

Fentanyl is nearly always found in combination with multiple other drugs. Illicit stimulants have been increasingly mentioned as co-intoxicants of fentanyl during the past several years. Heroin involvement, declining each year, was reported as a cause in 4% of 2021 deaths, compared to 11% last year. Methamphetamine was cited as a cause in 25% of the overdoses, which is 5% more than in 2020. Cocaine-involved fatalities January–November constituted 26% of cases, slightly more than the 23% in 2020. Fentanyl is mentioned as a cause in combination with cocaine in 21% of 2021 cases and in combination with methamphetamine in 19%. Xylazine and nonpharmaceutical tramadol were identified as co-intoxicants with fentanyl for the first time in 2021. Among 441 confirmed deaths January–November 2021, the number and percentage of cases with xylazine listed as an additional cause in fentanyl deaths is 41 (9%) of confirmed overdose deaths and 19 (4%) with tramadol.

Table 5: Key drug categories and combinations causing death among confirmed overdoses

Cause of death (alone or in combination with other drugs) <i>Sample size for completed cases only</i>	Jan–Dec 2020 N=504	Cumulative Jan–Nov 2021 N=451	November 2021 N=1
Nonpharmaceutical opioids			
Fentanyl or fentanyl analogs	336 (67%)	341 (76%)	0 (0%)
Heroin	57 (11%)	19 (4%)	0 (0%)
Nonpharmaceutical stimulants			
Cocaine	118 (23%)	118 (26%)	0 (0%)
Methamphetamine	99 (20%)	112 (25%)	0 (0%)
Pharmaceutical opioids**	118 (23%)	96 (21%)	0 (0%)
Key combinations			
Fentanyl and heroin	47 (9%)	18 (4%)	0 (0%)
Fentanyl and cocaine	97 (19%)	95 (21%)	0 (0%)
Fentanyl and methamphetamine	70 (14%)	85 (19%)	0 (0%)
Fentanyl and xylazine	0 (0%)	41 (9%)	0 (0%)
Fentanyl and tramadol	0 (0%)	19 (4%)	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 no longer counted as a pharmaceutical opioid.

Highlight of the Month Regarding Substance Use Disorder Public Policy Response

Department of Public Safety Receives \$6 million Department of Justice COSSAP grant

On Dec. 24, 2021 the Department of Public Safety (DPS) received notice that it was awarded a \$6 million COSSAP (Comprehensive Opioid, Stimulant, and Substance Abuse Site-based Program) grant from the U.S. Department of Justice. DPS sought the funding to assist in the ongoing statewide response to the opioid epidemic. The proposal offers creative statewide strategies that are built on existing systems to ensure sufficient support and offer capacity for long-term sustainability. The grant will financially support the following activities:

- Administration of medication assisted treatment by emergency medical services personnel, after prescribing by a licensed health professional.
- Creation and implementation of a statewide naloxone leave-behind program within EMS, as authorized by enactment of L.D. 1333 in 2021, which authorized EMS clinicians to dispense naloxone to persons experiencing a substance use disorder, their family, and/or their friends.
- Implement a recovery coach training program that will be delivered quarterly throughout the state. This training will focus on law enforcement professionals working in the field, including those working for the MDEA.
- Connect with the OPTIONS program that is staffed with behavioral health professionals in each county.
- Partial funding of salary and benefit costs of the community outreach coordinator at the Sanford Police Department. This individual will work closely with the OPTIONS liaison for York County.
- Comprehensive evaluation of the grant activities by the University of Maine.

These activities will begin in early 2022.

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 non-fatal overdoses were contributed by the Maine CDC, Maine Emergency Management Services, Maine ODMAP initiative, Maine Naloxone Distribution Initiative, and Office of Attorney General Naloxone Distribution. Monthly reports are designed to improve transparency and timeliness regarding Maine's epidemic of substance use morbidity and mortality. Year-to-date numbers are updated with each monthly report, 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 is being extended to two or more months.

By highlighting drug death 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 is 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.

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 also provides funding to the State of Maine's Office of Behavioral Health and Center for Disease Control, which support university programs involving fatal and non-fatal overdoses, and enable collection of data included in this report. The conclusions represented here do not necessarily represent those of the U.S. CDC.