

MAINE MONTHLY OVERDOSE REPORT

For March 2021
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Marcella H. Sorg
Margaret Chase Smith Policy Center
University of Maine

Fatal Overdoses

The March 2021 total of 53 fatal drug overdoses consists of 30 confirmed drug deaths and 23 suspected drug deaths. Figure 1 shows the considerable monthly fluctuation of deaths over the past 12 months. Although the 2020 average is 42, the range extends from 34 to 53. The final January 2021 number of fatal drug overdoses is 55. The February total is 41 confirmed and one suspected overdose.

Figure 1. Number of suspected and confirmed fatal overdoses by month

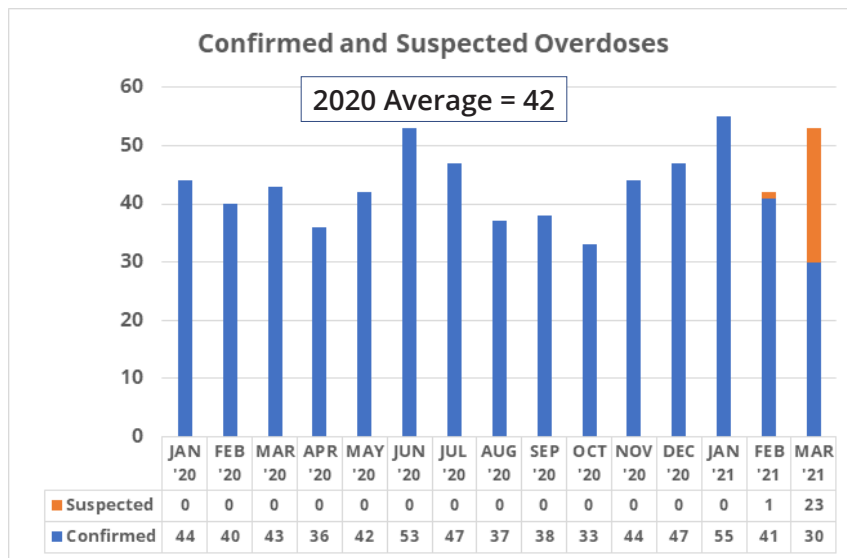


Table 1 shows the frequency distribution of deaths at the county level. The March 2021 totals can be compared either to the percent of the census population on the far left or the percent of all Maine drug deaths for 2020, also on the left. Caution must be exercised with these small numbers. They are likely to fluctuate randomly, without any significant statistical meaning. In general, the cumulative percentages for January–March fall within 2-3% of the 2019 census distribution.

Table 1. County of death among suspected and confirmed overdoses

County	Percentage of 2019 Census Population	Jan-Dec 2020 N=504	January 2021 N=55	February 2021 Est. N=42	March 2021 Est. N=53	Cumulative Jan-Mar 2021 Est. N=150
Androscoggin	8	52 (10%)	9 (16%)	4 (10%)	8 (15%)	12 (8%)
Aroostook	5	17 (3%)	1 (2%)	2 (5%)	2 (4%)	5 (3%)
Cumberland	22	97 (19%)	10 (18%)	10 (24%)	8 (15%)	28 (19%)
Franklin	2	8 (2%)	0 (0%)	1 (2%)	2 (4%)	3 (2%)
Hancock	4	13 (3%)	2 (4%)	3 (7%)	1 (2%)	6 (4%)
Kennebec	9	49 (10%)	6 (11%)	6 (14%)	2 (4%)	14 (9%)
Knox	3	16 (3%)	0 (0%)	0 (0%)	1 (2%)	1 (1%)
Lincoln	3	9 (2%)	3 (5%)	1 (2%)	2 (4%)	6 (4%)
Oxford	4	15 (3%)	3 (5%)	3 (7%)	2 (4%)	8 (5%)
Penobscot	11	94 (19%)	7 (13%)	5 (12%)	15 (36%)	27 (12%)
Piscataquis	1	10 (2%)	1 (2%)	0 (0%)	0 (0%)	3 (2%)
Sagadahoc	3	8 (2%)	1 (2%)	1 (2%)	0 (0%)	2 (1%)
Somerset	4	13 (3%)	1 (2%)	1 (2%)	0 (0%)	2 (1%)
Waldo	3	9 (2%)	2 (4%)	0 (0%)	0 (0%)	2 (1%)
Washington	2	20 (4%)	2 (4%)	1 (2%)	3 (6%)	6 (4%)
York	15	74 (15%)	8 (15%)	3 (7%)	7 (17%)	18 (12%)

Table 2 displays the age and gender composition of the monthly fatal overdose population. The cumulative proportion of males in the first quarter of 2021 was 66%, which is lower than the 71% level in 2020. The cumulative age distribution in 2021, however, was nearly identical to 2020, and is clustered in the two middle categories, from 18-39 (42%) and 40-59 (48%). There are no decedents that were under 18 in 2021, and only 10% over 60.

Table 2. Decedent characteristics among suspected and confirmed overdoses

Characteristics	Jan-Dec 2020 N=504	January 2021 N=55	February 2021 Est. N=42	March 2021 Est. N=53	Cumulative Jan-Mar 2021 Est. N=150
Percent males	357 (71%)	35 (64%)	29 (69%)	35 (66%)	99 (66%)
Percent under 18	2 (<1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Percent 18-39	213 (42%)	20 (36%)	22 (52%)	22 (42%)	42 (42%)
Percent 40-59	235 (47%)	30 (55%)	18 (38%)	26 (49%)	48 (48%)
Percent 60+	54 (11%)	5 (9%)	4 (10%)	3 (6%)	(10%)

Table 3 reports some of the basic incident patterns. Roughly similar to 2020, during the first quarter of 2021, both EMS and police responded to most fatal overdoses, 77%. Law enforcement was more likely to respond to a scene alone (18%) than EMS (4%). The overwhelming majority (95%) of drug overdoses were ruled as accidental manner of death.

Based on the death investigation records, naloxone was administered to 28% of the victims at the scene in 2021, mostly by EMS. This is nearly double the 2020 proportion, which was 16%. During the first quarter of 2021, 45% of overdose victims either received naloxone at the scene or were transported to the emergency room by EMS, or both. The other 55% were found already deceased, or were found by someone who did not have the means to resuscitate them.

Compared to 2020, during the first quarter of 2021, naloxone was more likely to be administered at the scene, whether by EMS, bystanders, or law enforcement (see Table 3). This may be due to the greater availability of police trained to administer it through programs like the Attorney General’s Naloxone Distribution Initiative and ODMAP. 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 when first responders arrive, the details about who may have been present at the time of the overdose was usually unclear.

Table 3. Event characteristics among suspected and confirmed overdoses

	Jan-Dec 2020 N=504	January 2021 N=55	February 2021 Est. N=42	March 2021 Est. N=53	Cumulative Jan-Mar 2021 Est. N=150
EMS and/or law enforcement (LE) response	500 (99%)	54 (98%)	42(100%)	53 (100%)	149 (99%)
EMS response alone	28 (6%)	2 (4%)	2 (5%)	3 (6%)	7 (4%)
Law enforcement alone	107 (21%)	10 (18%)	7 (17%)	10 (19%)	27 (18%)
EMS and law enforcement	365 (72%)	42 (76%)	33 (79%)	40 (75%)	115 (77%)
Naloxone administration at scene and/or transport to emergency room	121 (24%)	20 (36%)	20 (48%)	27 (51%)	67 (45%)
Manner of death (suspected or confirmed)					
Accident	457 (91%)	53 (96%)	39 (93%)	51 (96%)	143 (95%)
Suicide	33 (7%)	1 (2%)	1 (2%)	2 (4%)	4 (3%)
Undetermined	14 (3%)	1 (2%)	2 (5%)	0 (0%)	3 (2%)
Naloxone Administration	79 (16%)	15 (27%)	14 (33%)	21 (38%)	50 (33%)
Bystander only administered	11 (2%)	1 (2%)	2 (5%)	5 (9%)	8 (5%)
Law enforcement only administered	8 (2%)	3 (5%)	1 (2%)	2 (4%)	6 (4%)
EMS only administered	55 (11%)	7 (13%)	10 (24%)	7 (13%)	24 (16%)
EMS and law enforcement administered	4 (1%)	2 (4%)	1 (2%)	4 (7%)	7 (5%)
EMS and bystander administered	8 (2%)	1 (2%)	0 (0%)	1 (2%)	2 (1%)
Law enforcement & bystander admin.	0 (0%)	0 (0%)	0 (0%)	1 (2%)	1 (<1%)

Table 4 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 to date in 2021, at 81%, 14% higher than in 2020. Heroin involvement has been declining during the last several years, causing 10% of 2021 deaths, compared to 11% last year. Illicit stimulants have been increasingly mentioned as a cause of death in recent years, and in the first quarter of 2021, methamphetamine caused 30% of the overdoses, compared to 20% in 2020.

Cocaine-involved fatalities constituted 20% of cases, slightly lower than 23% in 2020. Fentanyl is found in combination with cocaine in 17% of cases, and in combination with methamphetamine in 26%. Pharmaceutical opioids were named as a cause of death in 25%, all in combination with other drugs, just 2% higher than in 2020.

Table 4. Key drug categories and combinations causing death among confirmed overdoses

Cause of death (alone or in combination with other drugs) Sample size for completed cases only	Jan-Dec 2020 N=504	January 2021 N=55	February 2021 N=41	March 2021 N=30	Cumulative Jan-Mar 2021 N=126
Nonpharmaceutical opioids					
Fentanyl or fentanyl analogs	336 (67%)	41 (75%)	35 (85%)	26 (87%)	102 (81%)
Heroin	57 (11%)	5 (9%)	5 (12%)	3 (10%)	13 (10%)
Nonpharmaceutical stimulants					
Cocaine	118 (23%)	10 (18%)	7 (17%)	8 (27%)	25 (20%)
Methamphetamine	99 (20%)	18 (33%)	7 (17%)	13 (43%)	38 (30%)
Pharmaceutical opioids	118 (23%)	16 (29%)	7 (17%)	8 (27%)	31 (25%)
Key combinations					
Fentanyl and cocaine	97 (19%)	8 (15%)	6 (15%)	7 (23%)	21 (17%)
Fentanyl and methamphetamine	70 (14%)	14 (25%)	7 (23%)	12 (40%)	33 (26%)

Nonfatal Overdoses

We currently do not have a precise way to enumerate nonfatal overdoses. Several metrics can be used to estimate minimum numbers of nonfatal overdoses from different perspectives (see Table 5). This includes, for example, counting the number of responses by EMS in which the EMT or paramedic suspects an opioid overdose and administers naloxone. However, many persons involved with an overdose event do not call 911. And some deaths are not caused by opioids. One syringe access program in Maine estimates that as many as 74% of overdose events do not include a 911 call. Put another way, the 911 calls may occur in only 26% of the overdoses, whereas 74% constitute “private overdoses.” Some of these persons will unfortunately die. In about 15% of EMS overdose cases, the patient is revived, but refuses to be transported to the emergency room. Some may receive naloxone, but are found later not have had an overdose, but were unconscious or had stopped breathing for another reason.

The average monthly number of EMS runs in which naloxone was administered and patient survived was 105 in 2020, and is exactly the same in the first quarter of 2021. The average monthly number of emergency room visits for a drug overdose identified through syndromic surveillance increased slightly from 277 in 2020 to 282 in the first quarter of 2021. The average monthly number of overdose reversals voluntarily reported to the Tier 1 distributors in the Maine Naloxone Distribution Initiative was 161 in 2020, and fell to 121 in the first quarter of 2021. Finally the average monthly number of non-fatal overdose incidents attended by law enforcement including naloxone administration fell from 52 in 2020 to 45 in the first quarter of 2021.

Table 5. Five partially overlapping metrics estimating the number of nonfatal overdoses per month

Metrics Frequently Used to Estimate Nonfatal Overdose Numbers	Unduplicated Monthly Estimate Based on 4 th Quarter 2020	Unduplicated Monthly Estimate Based on Jan-Mar 2021
Average monthly number of EMS runs in which naloxone was administered and patient survived SOURCES: Maine EMS; Maine Office of Chief Medical Examiner	105	105
Average monthly number of emergency department visits likely involving a drug overdose, minus those who were transported by EMS and then died SOURCES: Maine CDC- Syndromic Surveillance, Office of Chief Medical Examiner	277	282
Average monthly number of overdose reversals reported by community naloxone distributors, minus the number of fatal overdoses in which bystanders administered naloxone SOURCE: Maine Naloxone Distribution Initiative (based on January and February totals)	161	121
Average monthly number of incidents in which law enforcement administered naloxone and victim survived** SOURCES: Maine Office of Attorney General and ODMAP Initiatives, unduplicated	52	45

**Error was corrected from February Report for 4th quarter 2020

Highlight of the Month Regarding Substance Use Disorder Public Policy Response

The MaineMOM Initiative

In 2020, MaineCare was awarded a five-year, \$5 million grant, Maine Maternal Opioid Misuse (MaineMOM), to improve care for pregnant and postpartum women with Opioid Use Disorder (OUD) and their infants by developing a MaineCare service to integrate maternal and substance use disorder treatment services. The MaineMOM team has onboarded key grant staff, including a leading state and national expert in perinatal substance use care as the MaineMOM clinical advisor.

Beginning this summer, MaineCare will pilot these integrated services at 16 health care sites at MaineHealth, Northern Light, MaineGeneral, MidCoast Hospital, Pines Health Services and Penobscot Community Health Center, with an aim to reach nearly 300 women by July 2022. This summer, MaineCare will also begin a public awareness campaign aimed at increasing awareness to pregnant women's treatment options and available services. This campaign and MaineMOM will utilize the current Maine CDC Public Health Nursing CradleME referral system as one of many ways to connect individuals to MaineMOM treatment sites and other social and health-related resources.

To expand access to this robust care model, MaineCare will propose amendments to Maine's Medicaid State Plan to include these services as a covered MaineCare service in early 2022. The MaineMOM effort is highly collaborative and is focused on developing a sustainable and accessible family-centered treatment model. The team has worked across Departments within the State of Maine, with recovery centers statewide, with community members and with health and social service providers to achieve this aim.

The MaineMOM initiative is consistent with Strategy 21 in the updated Opioid Response Strategic Action Plan (SAP): *Dedicate staff and funding to support the screening, support and recovery of pregnant women with substance use disorder and support substance-exposed infants.* Within that strategy, current activity b. specifically references this program.

Background Information about this Report

This report, funded jointly by the Maine Office of Attorney General and the Office of Behavioral Health¹, provides an overview of statistics regarding suspected and confirmed fatal and nonfatal drug overdoses in Maine during the month of March, 2021. 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 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. Most cases are completed within one month.

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.

Maine Monthly Overdose Report

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.