

# MAINE DRUG DEATH REPORT JANUARY – SEPTEMBER, 2020

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*This report, funded by the Maine Office of Attorney General, provides a summary of statistics regarding drug fatalities in Maine during January – September, 2020. Data for the report were collected at the Office of Chief Medical Examiner. A “drug death” is identified when one or more drugs are mentioned on the death certificate as a cause or significant contributing factor for the death.*

## Overview

The total number of fatalities due to drugs during the first three quarters of 2020 is 380 (Figure 1). The first quarter of 2020 had 127 deaths; the second quarter total was 131, a 3% increase over the 1<sup>st</sup> quarter 2020; and the third quarter had 122, a 7% decrease compared to the 2<sup>nd</sup> quarter. The first three quarters of 2020 total of 380 is 24% higher than the previous three-quarter period, April – December 2019, which had a total of 306. In fact, the number of drug fatalities during January – September 2020 is equal to the total in all of 2019. This pattern of increase, similar to that seen in many other states, is likely due at least in part to the effects of the covid-19 pandemic and related mitigation measures: isolation, avoidance of or difficulty accessing medical services, and alterations in the illicit drug supply. The high number of fatal overdoses continues to be driven by illicit, nonpharmaceutical fentanyl and fentanyl analogs, totaling 248 over the first three quarters, 65% of deaths (Figure 2). In contrast, pharmaceutical opioids were mentioned as a cause of death in 97 cases, 26% of the deaths (Figure 3). In 39 cases (10% of deaths) these two categories overlap. The overall totals for illicit, nonpharmaceutical drug mortality, mainly involving fentanyl and heroin, has been quite volatile over the last three years, with a peak in 2017 (281, 67% of all drug deaths), a dip in 2018 (231, 65%), and increases in 2019 (268, 71%) and again in 2020 (336, 67%, extrapolated total for the whole year). Approximately one-third of opioid deaths (101, 32%) received naloxone at some point near the time of their death. Finally, about forty percent (156, 41%) of the drug fatalities in 2020 involved the illicit stimulants cocaine and/or methamphetamine (Figure 4). The quarterly total for cocaine, however, decreased substantially, although the methamphetamine total did not.

### **Manners of death:**

- Of the 380 total overdoses, 348 (92%) were accidental, 23 (6%) were suicides, and 9 (2%) were undetermined manner.

### **Overall patterns of note:**

- Most (81%) drug deaths were caused by two or more drugs. The average cause of death involved 3 drugs.
- The vast majority of overdoses (83%) were caused by at least one opioid, including both pharmaceutical and illicit (nonpharmaceutical) opioid drugs.

**Overall patterns of note continued:**

- Fentanyl (and/or its analogs) caused 65% of deaths, usually in combination with other drugs, down slightly in proportion from 68% in 2019.
- Heroin/morphine caused 12% of deaths, usually in combination with other drugs, down slightly in proportion from 16% in 2019.
- Cocaine or crack caused 25% of deaths, usually in combination with other drugs, down slightly in proportion from 29% in 2019. However, the 3<sup>rd</sup> quarter total of cocaine deaths, 19 (20%) represents an approximately 50% drop from the 1<sup>st</sup> and 2<sup>nd</sup> quarter totals of 38 (40%) and 37 (39%) respectively.
- Methamphetamine caused 16% of deaths, usually in combination with other drugs, up slightly in proportion from 12% in 2019.
- Pharmaceutical opioid deaths caused 26% of deaths, almost all in combination with other drugs, similar to the proportion as in 2019 (25%).
- Mitragynine (Kratom) appeared as a cause of death in 14 cases, 4% of deaths. This represents an increase over 2019 when there were 10 (3%).

**Table 1. Demographic patterns**

	Total	Average Age	Age Range	Percent Male
All drug deaths	380	43	0-96	269 (71%)
Accidents	348	42	16-96	250 (72%)
Suicides	23	52	22-72	14 (61%)

**Table 2. Involvement of specific drug categories  
(most are mentioned in combination with other drugs and/or alcohol)**

Specific drug or drug category identified as a cause of death (alone or in combination with other drugs and/or alcohol)	Number	Percent of 380 drug deaths
Number of deaths caused by more than one drug	308	81%
Any pharmaceutical drug	251	66%
Any pharmaceutical opioid drug	97	26%
Any opioid (pharmaceutical or nonpharmaceutical) 101 (32%) of 314 opioid deaths had received naloxone*	314	83%
Any nonpharmaceutical, illicitly manufactured drug (includes heroin/morphine, nonpharmaceutical fentanyl, fentanyl analogs, other illicitly-manufactured opioids, cocaine, and methamphetamine)	294	77%
Any nonpharmaceutical opioid drugs (heroin/morphine, fentanyl, fentanyl analogs, U-47700)	253	67%
Fentanyl and/or fentanyl analogs (known pharmaceutical fentanyl cases removed)	248	65%
Heroin/morphine (known pharmaceutical morphine removed)	46	12%
Any benzodiazepine	70	18%
Cocaine	94	25%
Methamphetamine	62	16%
Mitragynine (Kratom)	14	4%

\*Excludes cases with buprenorphine in toxicology.

## Nonpharmaceutical (Illicit) Fentanyl and/or Fentanyl Analog Deaths

This category includes deaths caused by nonpharmaceutical (illicitly manufactured) fentanyl and/or fentanyl analogs, usually combined with other co-intoxicant drugs. We removed all cases that involved known pharmaceutical fentanyl from these totals. There were 248 overdoses due to nonpharmaceutical fentanyl and/or fentanyl analogs in the first three quarters of 2020, 65% of drug deaths.

- 185 (75%) are male and 63 (25%) are female.
- The average age in nonpharmaceutical fentanyl and/or fentanyl analog deaths is 40 (age range 0-72).

**Table 3. Involvement of co-intoxicant drugs in nonpharmaceutical fentanyl deaths**

Specific co-intoxicants in addition to fentanyl and/or fentanyl analogs identified as a cause of death	Number	Percent of Fentanyl-Fentanyl Analog Deaths N=248
<b>FENTANYL and FENTANYL ANALOG COMBINATIONS</b>		
• Fentanyl (alone or combined with fentanyl analogs)	247	99%
• Fentanyl analogs (alone or combined with fentanyl)	29	12%
• Both nonpharmaceutical fentanyl and at least one fentanyl analog	28	11%
<b>CO-INTOXICANTS IDENTIFIED IN FENTANYL and/or FENTANYL ANALOG DEATHS</b>		
• One or more drugs (or alcohol) in addition to fentanyl and/or fentanyl analogs	199	80%
• One or more pharmaceutical opioids in addition to fentanyl and/or fentanyl analogs	39	16%
• Heroin/morphine in addition to fentanyl and/or fentanyl analogs	41	17%
• Alcohol in addition to fentanyl and/or fentanyl analogs	55	22%
• One or more benzodiazepines in addition to fentanyl and/or fentanyl analogs	42	17%
• Cocaine in addition to fentanyl and/or fentanyl analogs	76	31%
• Methamphetamine in addition to fentanyl and/or fentanyl analogs	41	17%
• Cocaine and/or methamphetamine in addition to fentanyl and/or fentanyl analogs	107	43%

**Table 4. Fentanyl analogs identified as a cause of death\***

Fentanyl analog Identified	Number	Percent of Fentanyl Analog-Involved Deaths N=29
Acetyl Fentanyl	25	86%
Parafluoroisobutyryl Fentanyl	1	3%
Valeryl Fentanyl	1	3%

\*4-ANPP, despropionyl fentanyl was found in two case toxicology reports, however it is categorized as a precursor of fentanyl, produced during manufacture, or as a metabolite, and is no longer included as an analog here.

## Heroin/Morphine Deaths

Heroin/morphine deaths include any case in which the cause of death is identified as “heroin” or “morphine.” We have removed all cases involving known pharmaceutical morphine, so the heroin/morphine deaths are all suspected heroin overdoses. In the first three quarters of 2020 there were 46 deaths due to (nonpharmaceutical) heroin/morphine, all in combination with other drugs or alcohol, comprising 12% of all drug deaths. In 2019 there were 61 heroin deaths, 16% of all drug deaths. Most of these suspected heroin deaths, 41 (89%) had both fentanyl and heroin identified as the cause. All of the heroin deaths had other co-intoxicants along with heroin.

**Table 5. Involvement of co-intoxicant drugs in heroin/morphine deaths**

<b>Specific co-intoxicants in addition to heroin/morphine identified as a cause of death</b>	<b>Number</b>	<b>Percent of Heroin/Morphine Deaths N=46</b>
One or more drugs (or alcohol) in addition to heroin/morphine	46	100%
At least one pharmaceutical opioid in addition to heroin/morphine	8	17%
Nonpharmaceutical fentanyl and/or fentanyl analogs in addition to heroin/morphine	41	89%
Alcohol in addition to heroin/morphine	9	20%
At least one benzodiazepine in addition to heroin/morphine	8	17%
Cocaine was mentioned in addition to heroin/morphine	14	30%

## Pharmaceutical Opioid Deaths

There were a total of 97 (26%) deaths due to pharmaceutical opioids during the first three quarters of 2020. Of these, nearly all (93, 96%) had one or more co-intoxicant drugs or alcohol also mentioned as a cause of death, predominantly nonpharmaceutical fentanyl. Key pharmaceutical opioids included buprenorphine (33, 34% of the pharmaceutical opioid deaths), oxycodone (22, 23%), methadone (21, 22%), and tramadol (15, 15%).

The frequency of deaths in which at least one pharmaceutical opioid is mentioned on the death certificate as a cause of death declined slightly over the past decade, although there was a slight increase in 2019 and another increase during the first three quarters of 2020, going from 79 in the previous three quarters (April – December 2019), to 97 (January – September 2020).

Of the 97 pharmaceutical opioid deaths, a majority (52, 54%) had at least one illicit drug also listed as a cause of death; most of these (39, 40%) included nonpharmaceutical fentanyl, frequently in combination with cocaine and/or methamphetamine (19, 20%)

**Table 6. Involvement of key pharmaceutical opioids and co-intoxicants in pharmaceutical opioid deaths**

Specific pharmaceutical opioids identified as a cause of death	Number	Percent of Pharmaceutical Opioid Deaths N=97
<b>KEY PHARMACEUTICAL OPIOIDS</b>		
• Buprenorphine	33	34%
• Oxycodone	22	23%
• Methadone	21	22%
• Tramadol	15	15%
<b>CO-INTOXICANT COMBINATIONS</b>		
• One or more drugs (or alcohol) in addition to pharmaceutical opioids	93	96%
• Nonpharmaceutical opioid(s) in addition to pharmaceutical opioids	39	40%
• Multiple pharmaceutical opioids	16	16%
• Fentanyl and/or fentanyl analogs in addition to pharmaceutical opioids	39	40%
• Heroin/morphine in addition to pharmaceutical opioids	8	8%
• One or more benzodiazepines in addition to pharmaceutical opioids	25	26%
• Cocaine in addition to pharmaceutical opioids	21	22%
• Methamphetamine in addition to pharmaceutical opioids	15	15%
• Alcohol in addition to pharmaceutical opioids	17	18%

## County Totals

The table below provides totals for Maine counties, comparing 2019 with the first three quarters of 2020, and projecting to the end of 2020. The reader is cautioned that, because the numbers for individual counties are relatively small, fluctuations between quarters or years may be due more to random chance than to actual changes in underlying epidemiological trends.

**Table 7. Total drug deaths by county for 2019, in the first three quarters of 2020 (Jan-Sep), and projected for 2020, compared to percent of Maine census population**

County	2019 Jan-Dec (Total=380)	2020 Jan-Sep (Total=380)	2020 Projection (Jan-Sep totals x 1.33) (380 x 1.33=505)	Percent of Maine Estimated Census Population 2019
Androscoggin	33 (9%)	37 (10%)	49	8%
Aroostook	14 (4%)	14 (4%)	19	5%
Cumberland	100 (26%)	67 (18%)	89	22%
Franklin	5 (1%)	6 (2%)	8	2%
Hancock	9 (2%)	10 (3%)	13	4%
Kennebec	42 (11%)	39 (10%)	52	9%
Knox	7 (2%)	13 (3%)	17	3%
Lincoln	11 (3%)	8 (2%)	11	3%
Oxford	9 (2%)	8 (2%)	11	4%
Penobscot	53 (14%)	74 (19%)	98	11%
Piscataquis	3 (1%)	10 (3%)	13	1%
Sagadahoc	8 (2%)	3 (1%)	4	3%
Somerset	16 (4%)	9 (2%)	12	4%
Waldo	3 (1%)	6 (2%)	8	3%
Washington	10 (3%)	18 (5%)	24	2%
York	57 (15%)	58 (15%)	77	15%

Figure 1. Total Number of Drug Deaths by Quarter

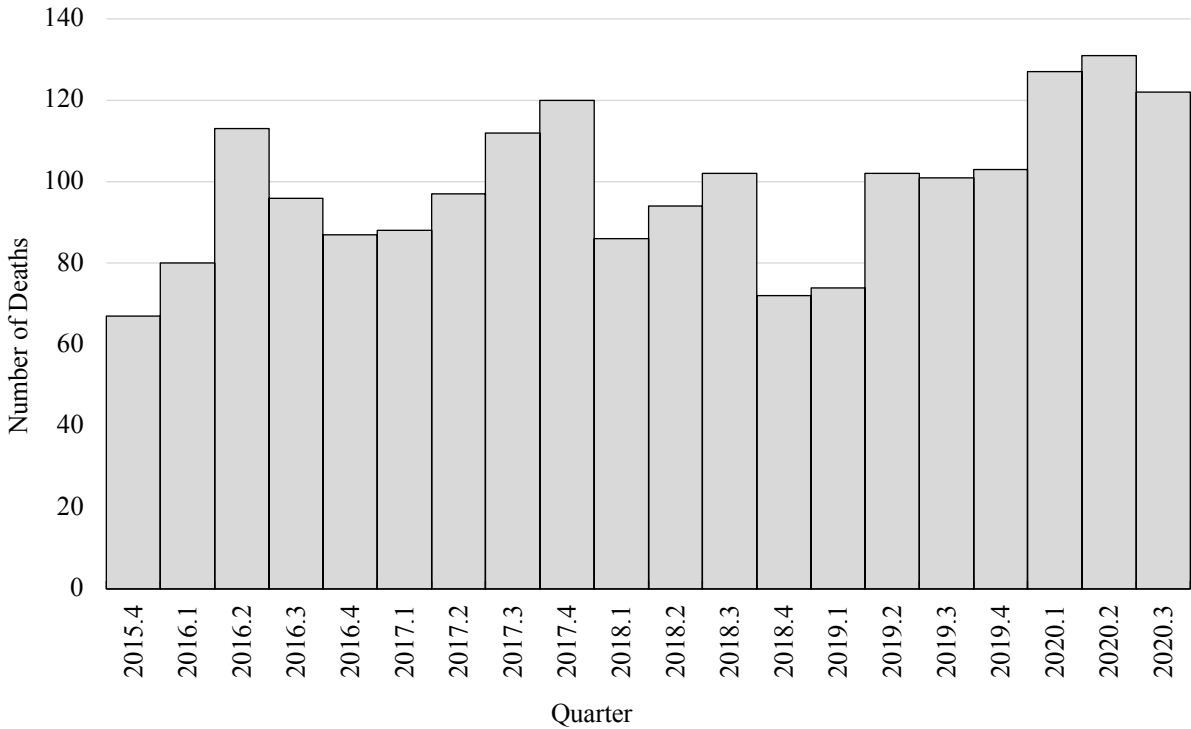


Figure 2. Quarterly Number of Deaths Caused by Nonpharmaceutical Fentanyl and/or Fentanyl Analog Alone or In Combination with Other Drugs or Alcohol

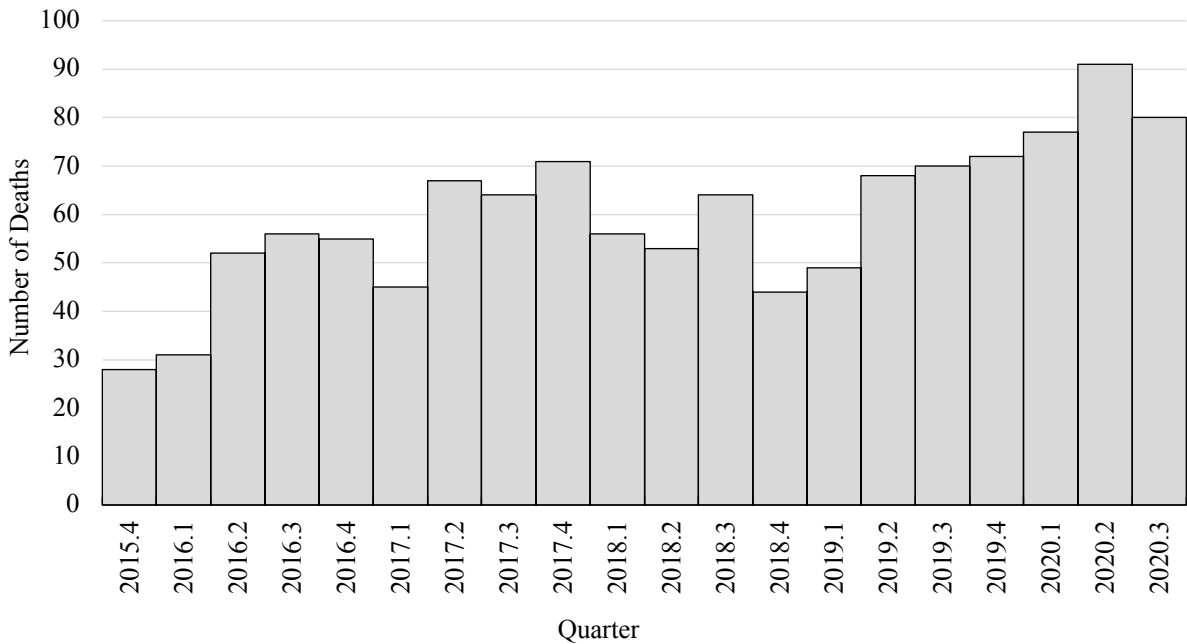


Figure 3. Quarterly Number of Deaths Caused by Pharmaceutical Opioid Drugs Alone or in Combination with other Drugs or Alcohol

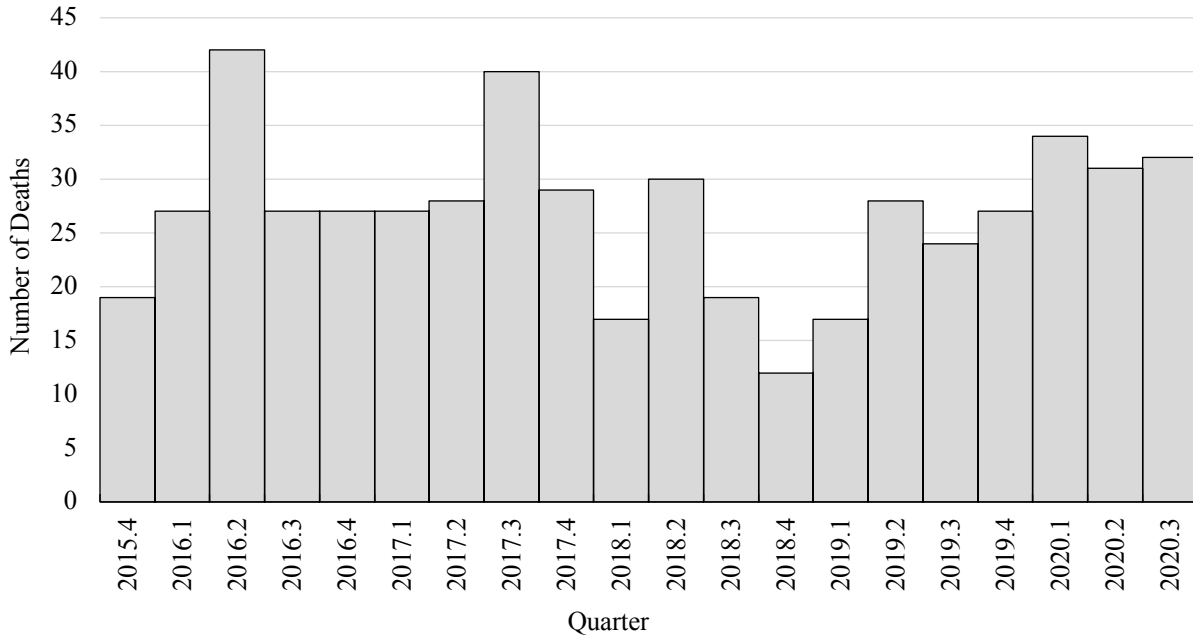


Figure 4. Quarterly Number of Deaths Caused by Cocaine and/or Methamphetamine Alone or in Combination with other Drugs or Alcohol

