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Maine Drug Death Report: January–June 2020

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MAINE DRUG DEATH REPORT
JANUARY – JUNE, 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-June, 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

Total fatalities due to drugs during the first half of 2020 total 258 (Figure 1). The first quarter of 2020 had 127 deaths, a 25% increase over 4th quarter 2019; the second quarter total was 131, a 3% increase over the 1st quarter 2020. The 2020 total is 26% higher than the previous half-year, July-December 2019, which had a total of 204. This pattern, similar to that seen in many other states, is likely due at least in part to the effects of the covid-19 pandemic: isolation, avoidance of 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, total 168, 65% of deaths (Figure 2), whereas pharmaceutical opioids were mentioned as a cause of death in 65 cases, 25% of the deaths (Figure 3). In 26 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, 65%, extrapolated total for the whole year). About half (84, 49%) of nonpharmaceutical opioid deaths in 2020 involved the illicit stimulants cocaine and/or methamphetamine (Figure 4). Approximately one-third of opioid deaths (73, 34%) received naloxone.

Manners of death: Of the 258 total overdoses, 236 (91%) were accidental, 16 (6%) were suicides, and 6 (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 (82%) were caused by at least one opioid, including both pharmaceutical and illicit (non-pharmaceutical) opioid drugs.
- Fentanyl (and/or its analogs) caused 65% of deaths, usually in combination with other drugs,

Table 1. Demographic patterns:

	Total	Average Age	Age Range	Percent Male
All drug deaths	259	43	16-96	183 (71%)
Accidents	236	42	16-96	170 (72%)
Suicides	16	49	22-64	12 (75%)

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

Specific drug or drug category causing the death (alone or in combination with other drugs and/or alcohol)	Number	Percent of 258 drug deaths
Number of deaths caused by more than one drug	211	81%
Any pharmaceutical drug	169	66%
Any pharmaceutical opioid drug	65	25%
Any opioid (pharmaceutical or non-pharmaceutical) 73 (34%) of 212 opioid deaths had received Naloxone*	212	82%
Any nonpharmaceutical, illicitly manufactured drug (includes heroin/morphine, non-pharmaceutical fentanyl, fentanyl analogs, other illicitly-manufactured opioids, cocaine, and methamphetamine)	200	78%
Any non-pharmaceutical opioid drugs (heroin/morphine, fentanyl, fentanyl analogs, U-47700)	171	66%
Fentanyl and/or fentanyl analogs (known pharmaceutical fentanyl cases removed)	168	65%
Heroin/morphine (known pharmaceutical morphine removed)	38	15%
Any benzodiazepine	52	20%
Cocaine	75	29%
Methamphetamine	41	16%
Mitragynine (Kratom)	10	4%

*Excludes cases with buprenorphine in toxicology.

Non-Pharmaceutical (Illicit) Fentanyl and/or Fentanyl Analog Deaths

This category includes deaths caused by non-pharmaceutical (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 168 overdoses due to non-pharmaceutical fentanyl and/or fentanyl analogs in the first two quarters of 2020, 65% of drug deaths.

- 127 (76%) are male and 41 (24%) are female.
- The average age in non-pharmaceutical fentanyl and/or fentanyl analog deaths is 41 (age range 20-69).

Table 3. Involvement of co-intoxicant drugs in non-pharmaceutical 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=168
FENTANYL and FENTANYL ANALOG COMBINATIONS		
• Fentanyl (alone or combined with fentanyl analogs)	167	99%
• Fentanyl analogs (alone or combined with fentanyl)	20	12%
• Both non-pharmaceutical fentanyl and at least one fentanyl analog	19	11%
CO-INTOXICANTS IDENTIFIED IN FENTANYL and/or FENTANYL ANALOG DEATHS		
• One or more drugs (or alcohol) in addition to fentanyl and/or fentanyl analogs	138	82%
• One or more pharmaceutical opioids in addition to fentanyl and/or fentanyl analogs	26	15%
• Heroin/morphine in addition to fentanyl and/or fentanyl analogs	35	21%
• Alcohol in addition to fentanyl and/or fentanyl analogs	34	20%
• One or more benzodiazepines in addition to fentanyl and/or fentanyl analogs	27	16%
• Cocaine in addition to fentanyl and/or fentanyl analogs	61	36%
• Methamphetamine in addition to fentanyl and/or fentanyl analogs	28	17%
• Cocaine and/or methamphetamine in addition to fentanyl and/or fentanyl analogs	82	49%

Table 4. Fentanyl analogs identified as a cause of death January-June 2020

Fentanyl Analog Identified	Total Number of Cases*	Percent of Fentanyl Analog-Involved Deaths N=20
Acetyl Fentanyl	16	80%
Parafluoroisobutyryl Fentanyl	1	5%
Valeryl Fentanyl	1	5%

Heroin/Morphine Deaths

Heroin/morphine deaths include any death in which the cause of death identified "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 two quarters of 2020 there were 38 deaths due to (non-pharmaceutical) heroin/morphine, all in combination with other drugs or alcohol, comprising 14% of all drug deaths. In 2019 there were 61 heroin deaths, 16% of all drug deaths.

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

Specific co-intoxicants in addition to heroin/morphine identified on the death certificate as a cause of death	Number	Percent of Heroin/Morphine Deaths N=38
One or more drugs (or alcohol) in addition to heroin/morphine	38	100%
At least one pharmaceutical opioid in addition to heroin/morphine	8	21%
Non-pharmaceutical fentanyl and/or fentanyl analogs in addition to heroin/morphine	35	92%
Alcohol in addition to heroin/morphine	7	18%
At least one benzodiazepine in addition to heroin/morphine	7	18%
Cocaine was mentioned in addition to heroin/morphine	13	34%

Pharmaceutical Opioid Deaths

There were a total of 65 (25%) deaths due to pharmaceutical opioids during the first half of 2020. Of these, nearly all (65, 97%) had co-intoxicant drugs or alcohol also mentioned as a cause of death. Key pharmaceutical opioids included buprenorphine (18, 28%), oxycodone (16, 25%), methadone (15, 23%), and tramadol (11, 17%).

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 half of 2020, going from 45 (January-June 2019), to 51 (July-December 2019, to 65 January-July 2020.

Of the 65 pharmaceutical opioid deaths, a majority (36, 55%) had at least one illicit drug also listed as a cause of death; most of these (26, 72%) included nonpharmaceutical fentanyl, usually in combination with cocaine and/or methamphetamine (23, 64%)

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

	Number	Percent of Pharmaceutical Opioid Deaths N=65
KEY PHARMACEUTICAL OPIOIDS		
• Buprenorphine	18	28%
• Oxycodone	16	25%
• Methadone	15	23%
• Tramadol	11	17%
CO-INTOXICANT COMBINATIONS		
• One or more drugs (or alcohol) in addition to pharmaceutical opioids	63	97%
• Nonpharmaceutical opioid(s) in addition to pharmaceutical opioids	26	40%
• Multiple pharmaceutical opioids	10	15%
• Fentanyl and/or fentanyl analogs in addition to pharmaceutical opioids	26	40%
• Heroin/morphine in addition to pharmaceutical opioids	8	12%
• One or more benzodiazepines in addition to pharmaceutical opioids	19	29%
• Cocaine in addition to pharmaceutical opioids	16	25%
• Methamphetamine in addition to pharmaceutical opioids	8	12%
• Alcohol in addition to pharmaceutical opioids	8	12%

County Totals

The table below provides totals for Maine counties, comparing 2019 with the first half 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 half of 2020 (H1), and projected for 2020, compared to percent of Maine census population

County	2019 (Total=380)	2020 H1 (Total=258	2020 Projection (Jan-Jun totals times two) (258 x 2=516)	Percent of Maine Estimated Census Population 2019
Androscoggin	33 (9%)	24 (9)%	48	8%
Aroostook	14 (4%)	13 (5)%	26	5%
Cumberland	100 (26%)	48 (19)%	96	22%
Franklin	5 (1%)	6 (2)%	12	2%
Hancock	9 (2%)	9 (3)%	18	4%
Kennebec	42 (11%)	24 (9)%	48	9%
Knox	7 (2%)	11 (4)%	22	3%
Lincoln	11 (3%)	5 (2)%	10	3%
Oxford	9 (2%)	5 (2)%	10	4%
Penobscot	53 (14%)	44 (17)%	88	11%
Piscataquis	3 (1%)	7 (3)%	14	1%
Sagadahoc	8 (2%)	1 (0)%	2	3%
Somerset	16 (4%)	8 (3)%	16	4%
Waldo	3 (1%)	4 (2)%	8	3%
Washington	10 (3%)	11 (4)%	22	2%
York	57 (15%)	38 (15)%	76	15%

Figure 1. Total Number of Drug Deaths by Quarter

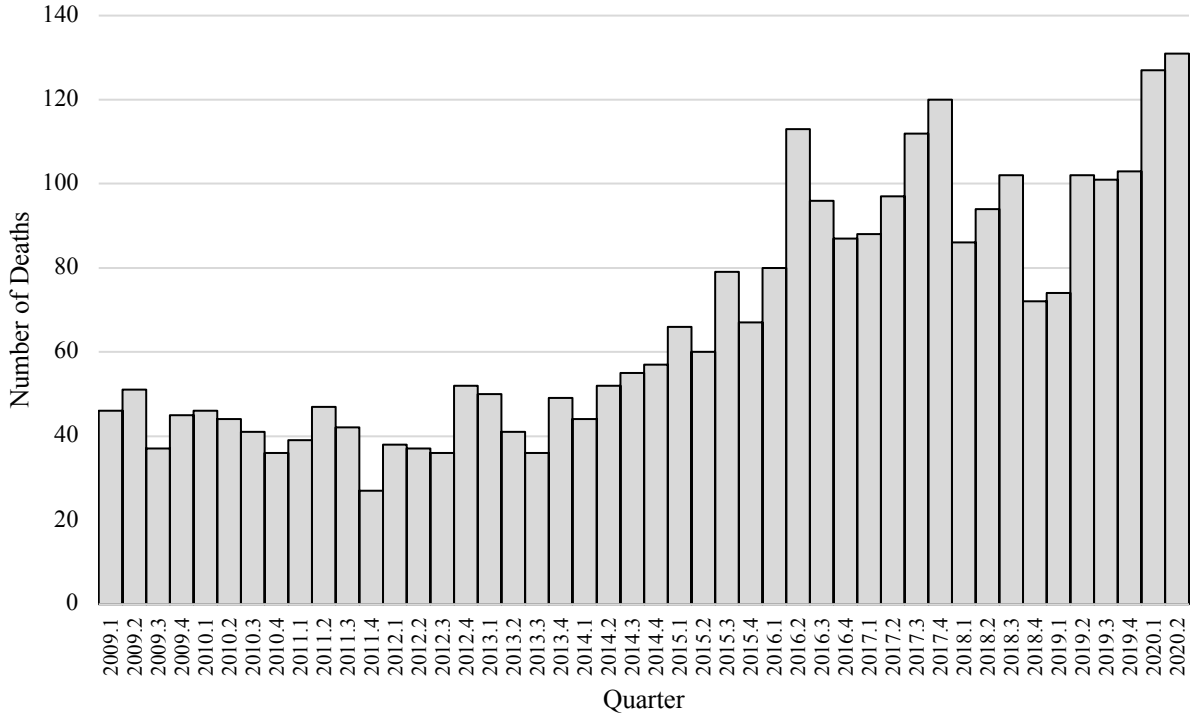

Figure 2. Quarterly Number of Deaths Caused by Nonpharmaceutical Fentanyl and/or Fentanyl Analogs Alone or in Combination with other Drugs or Alcohol

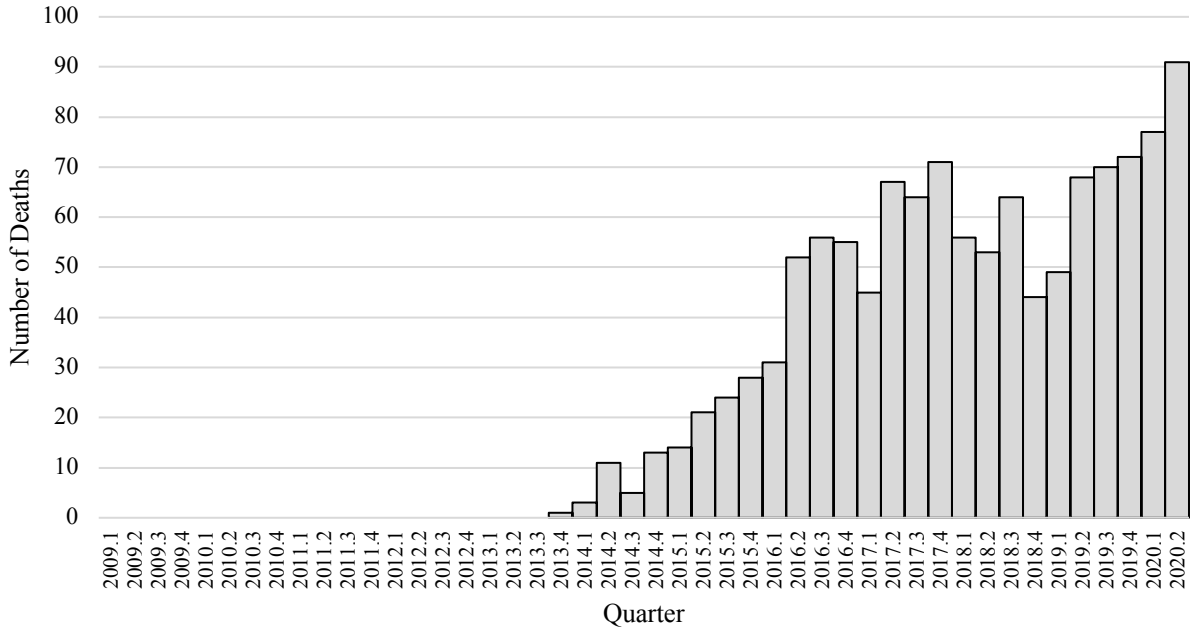

Figure 3. Quarterly Number of Deaths Caused by Pharmaceutical Opioid Drugs Alone or in Combination with other Drugs or Alcohol

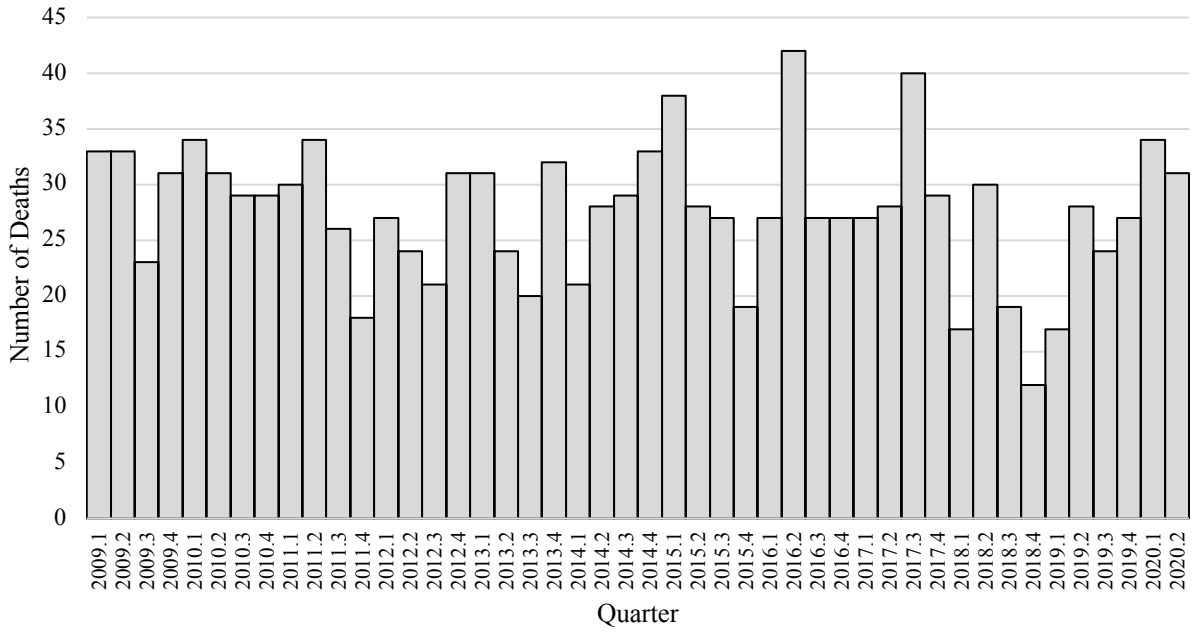

Figure 4. Quarterly Number of Deaths Caused by Cocaine and/or Methamphetamine Alone or in Combination with other Drugs or Alcohol