NDEWS National Drug Early Warning System

Funded at the Center for Substance Abuse Research by the National Institute on Drug Abuse

Maine
Sentinel Community Site (SCS)
Drug Use Patterns and Trends, 2018

November 2018

NDEWS Coordinating Center

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National Drug Early Warning System (NDEWS)
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Highlights

- **Benzodiazepines** remain a substantial presence in drug use and abuse, with indicators moderately high and decreasing. The percentage of drug-induced deaths caused by benzodiazepines had declined to 20% in 2012; it increased sharply to 36% in 2013 and then declined gradually over the next few years, reaching 24% in 2017. The percentage of impaired drivers testing positive for any benzodiazepines rose from 38% in 2015 to 45% in 2016, but then it dropped to 34%. Primary treatment admissions remain very low and stable at 0.8%; in 2015, the total admissions had been 0.6% and were 0.7% in 2016.

- **Cocaine/crack** abuse indicators were high and increasing in 2017. The percentage of drug deaths involving cocaine rose from 13% in 2015 to 16% in 2016 and then increased again in 2017 to 22%. The percentage of impaired drivers testing positive for cocaine remained stable at 17% in 2015 and 17% in 2016 and then rose in 2017 to 24%. Arrests by the Maine State Drug Enforcement Agency (MDEA) had declined from 22% in 2015 to 17% in 2016, but they rose again in 2017 to 26%. Statewide law enforcement seizures of cocaine had declined slightly from 26% in 2015 to 24% in 2016, but the percentage rose in 2017 to 33%. Treatment admissions have increased slightly, going from 2.6% in 2015 to 3.2% in 2016, and 4.3% in 2017.

- **Heroin** abuse indicators all decreased in 2017 except the number of treatment admissions. Deaths due to heroin had decreased in percentage slightly from 2015 to 2016, from 39% to 32%, but declined to 21% in 2017. The percentage of impaired drivers testing positive for heroin/morphine declined from 2015 to 2016 from 26% to 21% and then dropped further to 16% in 2017. In 2015, the percentage of MDEA arrests was 39%, increasing in 2016 to 46%; that rate dropped to 38% in 2017. The percentage of heroin-positive law enforcement items received and tested in 2016 by the state forensics lab declined from 42% in 2015 to 23% in 2017. Treatment admissions had been stable between 2015 and 2016 at 27.1% and 28.2%, respectively; however, they rose dramatically to 32.2% in 2017.

- **Marijuana** indicators remained very high and continued to show fluctuating levels and trends. General use for marijuana remained very high. The percentage of drug-impaired drivers with

cannabis positive urine was 56% in 2015, rising to 60% in 2016; it remained fairly stable in 2017 at 58%. The percentage of treatment admissions has been relatively stable for the past three years: 7.2% in 2015, 6.2% in 2016, and 5.9% in 2017.

- **MDMA** indicators were very low and appeared to be stable. In 2017, there were only 12 law enforcement seizures testing as MDMA/MDA. There were fewer than 10 deaths in 2016 and 2017.

- **Methamphetamine** indicators continue to show mixed trends at low levels. There were no 2013 deaths, rising to 2% in 2016 and 4% in 2017. Only 3% of impaired drivers had methamphetamine-positive urine, rising to 6% in 2016 and 5% in 2017. Similarly, statewide law enforcement seizures increased slightly from 6% in 2015 to 7% in 2016 (revised), remaining at 7% in 2017. Treatment admissions were 0.5% in 2015, 0.8% in 2016, and 1.1% in 2017.

- Indicators for **non-pharmaceutical fentanyl** (including fentanyl analogs) were very high, had increased substantially, and were driving the mortality statistics. Non-pharmaceutical fentanyl and fentanyl analogs contributed to 32% of Maine's 2015 drug-induced deaths; that rate increased to 52% deaths in 2016, and still further to 59% in 2017. Fentanyl and its analogs were present in 10% of forensic laboratory items seized by law enforcement and tested in 2015, but rose to 23% in 2016, and still further to 27% in 2017. Unfortunately, fentanyl was not separated from other synthetic opioids in the treatment data.

- Indicators for **pharmaceutical opioids** have been trending downward overall, but lagging indicators such as treatment admissions have remained high. In 2015, 41% of deaths were a result of pharmaceutical opioids (excluding non-pharmaceutical fentanyl), 33% in 2016, and 30% in 2017. The percentage of pharmaceutical opioid-positive urinalyses among impaired drivers increased substantially from 48% in 2015 to 59% in 2016 but then dropped to 39%. The percentage of treatment admissions for pharmaceutical opioids (including fentanyl) in 2017 was 21.2%, down slightly from 23.4 in 2016 and 25.6% in 2015.

NDEWS Priority Substances

COCAINE/CRACK

Key Findings

Cocaine/crack abuse indicators were generally high and all increased in 2017. The number of cocaine-related deaths climbed from 10 (6%) in 2010 to 91 (22%) in 2017. The percentage of impaired drivers testing positive for cocaine rose sharply from 9% in both 2013 and in 2014 to 17% in both 2015 (*n* = 51) and 2016 (*n* = 66), and up further to 24% (*n* = 93) in 2017. The number of cocaine arrests rose in 2013 along with heroin, and has fluctuated, most recently increasing sharply to 151 in 2015, then falling to 106 in 2016 and rising again in 2017 to 137. Cocaine was found in 33% of law enforcement items received for testing[1] at the State lab in 2017, which was a sharp increase from 24% in 2016. The National Forensic Laboratory Information System (NFLIS) reported that cocaine was identified in 216 (19.6%) items in 2016 in Maine, surging to 433 (34.3%) in 2017. In 2016, cocaine ranked second behind heroin in the NFLIS report; in 2017 it ranks first. This compares to the national percentage of 14.6% of 1,492,827 items tested, and a rank of third, just ahead of heroin.

The proportions of primary cocaine treatment admissions remained stable at about 3% from 2013 to 2016, increasing slightly to 4.3% in 2017. Fifty-one percent of admissions were male, and most, 71%, were in the 26–44 age group. Most (198, 58%) reported smoking as the route of administration, with 26% reporting inhalation and 15% injection.

Polydrug Use

Among 340 treatment admissions for cocaine in 2017, 28% reported a secondary problem with heroin, 19% with prescription opioids, 16% with marijuana, and 14% with alcohol. Among 91 deaths in which cocaine was included as a cause of death, 22 (24%) had heroin listed as a co-intoxicant and 67 (74%) had non-pharmaceutical fentanyl and/or its analogs. Among the cocaine primary admissions, the most prevalent secondary problem substances reported were heroin/morphine (28%) and prescription opioids (19%). This pattern changed compared with 2016; prescription opioids took the place of alcohol in the ranking.

METHAMPHETAMINE

Key Findings

Methamphetamine indicators were mixed and remained at low levels. After many years when there were no deaths or 1–3 per year, in 2016 there were 7 (2%) and in 2017 there were 16 (4%). Among drug-impaired drivers

[1] Beginning with the 2015 NDEWS report, we have been reporting the total of seizure items tested in the year they were *received* rather than in the year they were tested. All annual lab results going back to 2010 have been recalculated for the purpose of this report to represent the year received. This provides a more current picture of drug trafficking patterns. For example, we included only items *received* by the lab in 2017 and tested that year. In addition, we include *any* drugs identified in each item. This differs from NFLIS, which counts items *tested* in a given year and includes *up to three items identified*. State lab seizure data for 2017 are from January–October.

tested, 21 (6%) had a methamphetamine-positive toxicology screen in 2016 and 19 (5%) had one in 2017. This represents a slight increase from 8 (3%) in 2015. In 2016, the Maine State Drug Enforcement Agency (MDEA) had responded to 127 clandestine, small lab incidents, more than double the 56 incidents in 2015; these numbers had been doubling each year since 2013, but in 2017 they fell sharply to 56 (the 2015 level). Not unexpectedly, statewide law enforcement seizures testing positive for methamphetamine show a similar pattern, with an increase from 50 to 86 between 2015 and 2016, then a drop to 57 (7%) in 2017. NFLIS reported 73 (5.5%) of Maine items tested as methamphetamine in 2015, and 65 (5.9%) in 2016, both years ranking fourth. In 2017 there were 77 items tested (6.1%), and methamphetamine continued to rank fourth. National NFLIS statistics show methamphetamine ranked second in 2016, with 21.5% of items testing positive; in 2017 it ranked first (23.5%). MDEA arrests for methamphetamine manufacture, trafficking, or possession have been rising since 2008. There were a total of 111 (17%) arrests in 2016, up from 85 (13%) in 2015; in 2017 there were 91 (17%) arrests. Treatment admissions have been rising since 2015 but remain at 1% or lower: 50 in 2015, 77 in 2016, and 90 (1%) in 2017. The percentage of male admissions increased from 51% male in 2016 to 63% in 2017. Most (71%) admissions were in the 26–44 age group, with 19% in the 18–25 group.

Polydrug Use

Among 90 primary treatment admissions in 2017 for methamphetamine, 14% reported a secondary problem with heroin, 14% with prescription opioids, 14% with marijuana, and 13% with alcohol. Among 16 deaths caused by methamphetamine, co-intoxicant causes included 10 (63%) non-pharmaceutical fentanyl and/or its analogs, 2 (13%) heroin, 4 (25%) prescription opioids, and 2 (6%) alcohol.

HEROIN

Key Findings

Heroin/morphine abuse indicators, which increased rather dramatically beginning in 2012 and 2013, have all been decreasing. Deaths from heroin/morphine[2], alone or in combination with other drugs or alcohol, bottomed out at 4% during 2010 and 5% in 2011, then rose sharply starting in 2012. Heroin deaths doubled in 2015, reaching 107 (39%), and rose further to 119 (32%) deaths in 2016. The number decreased to 88 (21%) in 2017. Approximately one year after the upsurge in heroin deaths, in 2013, an associated outbreak of deaths from non-pharmaceutical fentanyl occurred, ultimately eclipsing the number of heroin deaths.

Heroin/morphine-positive impaired driver urinalysis toxicology tests rose fairly sharply from 8% in 2009 to 21% in 2014. By 2017, the proportion dropped to 16%, however. Heroin arrests by the MDEA increased from a low of 5% in 2010 to 46% in 2016. But in 2017 there were fewer: 38% (*n* = 201). Statewide in 2015, 350 (42%) law enforcement items were received and tested positive for heroin. As of the end of 2016, that number had dropped to 269 (37%). The data available for 2017 (January–October) indicates the heroin percentage will be even lower, about 23%. A total of 6 fentanyl analogs were identified in the items tested: acetyl fentanyl,

[2] Before 2017, presumed heroin deaths were identified methodologically, including cases with literal mentions of heroin or heroin/morphine on the death certificate, after an evaluation of data from the scene and medical history that rules out known pharmaceuticals. Non-pharmaceutical fentanyl deaths are identified using the same approach. Beginning in 2017, Maine pathologists started using toxicology ratios between morphine and codeine to identify as heroin those morphine cases that do not have a heroin toxicology finding. Both methods were applied in 2017 and have been found to be concordant.

carfentanil, cyclopropyl-fentanyl, fluoroisobutyryll, methoxyacetyl fentanyl, and furanyl fentanyl. NFLIS reported that 207 (16.4%) of law enforcement items tested in 2017 in Maine were positive for heroin, which was approximately 50% lower than 2016. Heroin had ranked first among all drug frequencies in 2016; in 2017 it ranked third. The national NFLIS prevalence for heroin in 2017 was 10.4%, ranking fourth.

Primary heroin admissions rose from 6% in 2010 to 27% in 2015, then to 28% (2,758) in 2016. But in 2017, the percentage decreased to 32% (2,555). The proportion of heroin admissions in 2017 was substantially more than prescription opioid admissions (*n* = 1,679, 21%). Males (53%) slightly outnumbered females, with the 26–44 age group comprising 76%; this demographic profile was similar to that from 2016.

Polydrug Use

Heroin and non-pharmaceutical fentanyl have often been found in combination in decedents. In 2016, 75 (63%) heroin deaths also had non-pharmaceutical fentanyl (and/or its analogs) identified as a cause of death; in 2017 it decreased to 54 (61%). Of 64 impaired drivers testing positive for heroin, 32 (50%) also tested positive for fentanyl. Of the 180 heroin-positive items seized by law enforcement and tested in the state lab in 2017, 70 (39%) were positive for both heroin and fentanyl and/or fentanyl analogs, and 10 (6%) items were positive for both heroin and cocaine. Among 2,555 heroin admissions in 2017, 32% reported a secondary problem with prescription opioids, 22% with cocaine, and 14% with marijuana.

PRESCRIPTION OPIOIDS

Key Findings

Most Indicators for prescription opioids were high and trending downward, but lagging indicators such as treatment admissions were still relatively high. Pharmaceutical opioid-induced deaths totaled 112 (41% of drug overdoses) in 2015, rising to 123 (33%) in 2016, and 124 (30%) in 2017. These include those cases with known pharmaceutically-sourced fentanyl. Buprenorphine related deaths numbered 22 (18%). Of the 124 pharmaceutical opioid deaths in 2017, 27 (22%) had toxicology results positive for naloxone (excluding those cases also positive for buprenorphine).

The percentage of pharmaceutical opioid-positive toxicology tests among impaired drivers declined substantially from 57% in 2014 to 48% in 2015 but then rose again in 2016 to 59%. But in 2017 it decreased substantially to 39%. Heroin/morphine, by contrast, continued a steady increase from 8% in 2009 to 26% in 2015; that percentage then dropped to 16% in 2017. Law enforcement seizures including pharmaceutical opioids numbered 44 (6%).

The percentage of primary treatment admissions for pharmaceutical opioids rose every year for more than a decade to a peak of 38% in 2012, then gradually declined to 26% in 2015, 23% in 2016, and 21% in 2017. During this same time, heroin admissions rose gradually from 16% in 2013 to 28% in 2016 and still further to 32% in 2017. Among the 2017 admissions, 51% were male. The most common route of administration for admissions with a primary problem of pharmaceutical opioids was inhalation, at 40%; 16% were injecting. Patterns for route of administration have been stable for several years. Analysis of the age structure for opioid treatment admissions demonstrates that this population is aging. The 18–25-year-old cohort has declined from 22% in 2013 to 14% in 2015, 15% in 2016, and 7% in 2017.

Polydrug Use

Among 124 pharmaceutical opioid deaths in 2017, the most frequent pharmaceutical opioid co-intoxicants were oxycodone (*n* = 53, 43%), and methadone (*n* = 31, 25%). Nineteen of the 124 (15%) included heroin as a co-intoxicant cause of death, and 45 (36%) included non-pharmaceutical fentanyl and/or analogs . Of 44 law enforcement items testing positive for a prescription opioid in 2017, only 3 (7%) included heroin/morphine, 4 (9%) included non-pharmaceutical fentanyl and/or analogs, and 1 (2%) included cocaine. Among primary prescription opioid treatment admissions in 2017, heroin/morphine was the most common secondary problem at 20%; marijuana was second at 16%. Twenty-three percent reported no secondary problem.

FENTANYL AND OTHER NONPRESCRIPTION SYNTHETIC OPIOIDS

Key Findings

Indicators for illicitly produced fentanyl and its analogs remained extremely high, contributing to 247 (59%) of Maine's drug-induced drug deaths in 2017, which was a substantial increase of 27% from 2016 (*n* = 197). Of these, fentanyl/fentanyl analog deaths, 198 (80%) were male, which was an increase from 72% males in 2016. The average age was 38 (age range 18–69). A total of 107 (43%) non-pharmaceutical fentanyl cases involved a fentanyl analog, which was an increase from 75 in 2016. These included acetyl fentanyl (48% of the 107), furanyl fentanyl (30%), 4-ANPP (15%), acryl-fentanyl (1%), butyryl fentanyl (2%), carfentanil (5%), cyclopropyl fentanyl (7%), methoxyacetyl fentanyl (10%), and parafluorobutyryl fentanyl (9%). Some cases had more than one analog, and 58 (23%) had both fentanyl and at least one analog. Of 247 deaths due to fentanyl or its analogs, 95 (38%) of the toxicology results included naloxone (excluding those cases with buprenorphine present).

The number of items seized by law enforcement in 2017 that included either non-pharmaceutical fentanyl (excludes fentanyl patches) or fentanyl analogs was 215 (27%). Fentanyl (excluding fentanyl patches) was identified in 175 (22%) items seized by law enforcement and tested in 2017, which was an increase from 149 (21%) in 2016. NFLIS reported that 288 (22.8%) of Maine items tested in 2017 were positive for fentanyl, ranking first among narcotic analgesics; this was a substantial increase from 178 (16%) in 2016. The Maine data contrasted with the national NFLIS statistics, where fentanyl items constituted only 3.9% of items tested. Of Maine's 393 impaired-driver toxicology tests January–October 2017, 64 (16%) tested positive for fentanyl and/or fentanyl analogs.

Polydrug Use

Of the 247 fentanyl deaths in 2017, most (*n* = 194, 79%) had one or more co-intoxicant drugs listed as a cause of death, which was a decrease from 87% with co-intoxicants in 2016. Forty-five (18%) had one or more pharmaceutical opioids listed as a co-intoxicant, 54 (22%) had heroin/morphine listed, and 67 (27%) had cocaine. The change in the proportion of co-intoxicants was most apparent for co-intoxicant heroin, which decreased from 39% to 22%, and cocaine, which increased from 18% to 27%. Alcohol was a co-intoxicant in 68 (28%) fentanyl cases, and benzodiazepines in 45 (18%). Of the 215 law enforcement seizure items with fentanyl and/or fentanyl analogs, 70 (33%) items also tested positive for heroin, and 19 (9%) for cocaine. Of 64 impaired driver toxicology tests positive for fentanyl, 32 (50%) also tested positive for heroin.

Other Priority Substances in Maine

BENZODIAZEPINES

Key Findings

Benzodiazepines remained a substantial but decreasing presence in drug-induced deaths and drug-impaired driver toxicology. They were named as a cause of death, generally in combination with other drugs and/or alcohol, in 99 (24%) of drug-induced deaths in 2017, which was down from 105 (28%) in 2016. In 2017, benzodiazepines were identified in 134 (34%) impaired driver toxicology tests, which was down from 170 (45%) in 2016. By contrast, benzodiazepines were found in only 1.9% of 2017 law enforcement items and in none of 2017 MDEA arrests.

The number of primary benzodiazepine treatment admissions has declined from 82 (0.6%) in 2013 to 60 (also 0.8%) in 2017. Sixty-three percent of 2017 admissions were female and most (58%) are in the 26–44 age group.

Polydrug Use

The most prevalent secondary problem substances reported for 2017 benzodiazepine admissions were marijuana (22%) and prescription opioids (20%).

MARIJUANA

Key Findings

Marijuana indicators remained very high and continued to show fluctuating levels and trends, likely in response to uncertainty regarding recent legalization allowing recreational use, which has not yet been implemented. Primary marijuana treatment admissions declined very slightly from 7% in 2015 to 6% in both 2016 and 2017. The age and gender distribution of primary treatment admissions for marijuana has changed. In 2015, it was 73% male, 24% younger than 18, and 35% 18 to 25 years of age, whereas in 2017, there were fewer males (70%) and more admissions were younger than 18 (32%).

Arrests for marijuana continued to decline, sinking to 4% in 2015 and 1% in 2016 and 2017. By contrast, the percentage of drug-impaired drivers with cannabinoid-positive toxicology has increased since 2010, reaching 55% in 2015, 60% in 2016, and 58% in 2017. NFLIS reported that 1.7% of 1,327 items tested in Maine in 2015 were positive for cannabis, ranking 10th among drug frequencies; this proportion has stayed low, 3.2% in 2016 and 1.3% in 2017, the latter ranking eighth among drug categories. This compares with national NFLIS figures in which cannabis ranks second, with 22% of 1,492,827 of items testing positive.

Polydrug Use

Of 469 admissions for a primary marijuana problem, 46% reported a secondary problem with alcohol, 7% with prescription opioids, and 5% with cocaine.

NEW PSYCHOACTIVE SUBSTANCES (OTHER THAN OPIOIDS)

Key Findings

MDMA/MDA

MDMA indicators were very low in number in Maine. There was one (<1%) MDEA arrest for MDMA in 2016 and 6 in 2017 (1%). There were two (1%) deaths from MDA in 2016 and one in 2017. Four (1%) impaired drivers tested had MDMA/MDA-positive toxicology in 2016 and four (1%) in 2017. Maine's State lab reported 9 items positive for MDMA/MDA in 2016 (0.6%) and 12 (1.5%) in 2017. NFLIS reported 12 law enforcement items testing positive in Maine for MDMA and 2 for MDA in 2017 (1.2%); the national prevalence was also less than 1%. The number of MDMA admissions was suppressed in 2016 due to low numbers; in 2017 it was 7 (less than 1%).

Synthetic Cathinones

Synthetic cathinone abuse was at very low levels, having declined since the 2011–2012 peak. Cathinones were involved in less than 1% of MDEA arrests in 2017. Among law enforcement seizures received for testing, the number and variety of different compounds has decreased from 63 items representing 12 substances in 2014 to 7 items representing 3 substances in 2017: alpha-PHP (alpha-pyrrolidinohexiophenone), TH-PVP (3,4-tetramethylene-alpha-pyrrolidinovalerophenone HCL), and bk-DMBDB (dibutylone). Among 2015 treatment admissions, the total reported for "synthetic stimulants" was 64 in 2016 and 38 in 2017. No 2017 deaths were attributed to cathinones.

Infectious Diseases Related to Substance Use

There were 29 new HIV infections reported in 2017, which was a 48.2% decrease from 56 in 2016. This represents an incidence of 2.2 per 100,000 for 2017. Males represented 86.2% (*n* = 25) of newly infected individuals. The 15–24 age group (sexes combined) represented the largest age group at 37.9% of new cases, followed by the 35–44 age group with 20.6% of new cases, and the 25–34 age group with 17.2%. This is a change from 2016 when the 25–34 age group represented 26.8% of all new cases.

There were 77 new hepatitis B infections in 2017, up 45.3% from 53 new cases in 2016, and up 75% from 2015. The 25–34 age group (sexes combined) represented 38.9% of new cases. Risk factors among the new cases of hepatitis B for 2017 are not yet available. The 2017 incidence of new hepatitis B infections was 5.8 per 100,000 residents. There were an estimated 179 cases of probable and confirmed hepatitis B cases in 2017, which was a prevalence of 13.4 per 100,000.

There were 32 new hepatitis C infections in 2017, which was a 13.5% decrease in cases from 2016, when 37 new cases were reported. Hepatitis C in Maine had increased sharply between 2013 (when 9 cases were reported) and 2014 (when there were 31 new cases). Since that time period, cases of hepatitis C have mostly leveled off, with 30 cases reported in 2015, and 37 cases reported in 2016. The 2017 incidence of new hepatitis C infections in Maine was 2.4 per 100,000 residents. Individuals in the 15–24 age group made up 50% of the new infections. Data on the number of newly infected individuals who had use intravenous drugs in the 6-month period prior to diagnosis are currently unavailable for 2017; nevertheless, 32% of cases in 2016 did report intravenous drug use within the 6 months preceding diagnosis. There were 1,876 cases of newly reported chronic hepatitis C in 2017, compared with 1,584 in 2016. The 2017 prevalence of chronic hepatitis C was 123.9 cases per 100,000. Data on the number of chronic hepatitis Infections attributable to intravenous drug use are unavailable.

In the past year, the state of Maine began a pilot program to encourage individuals diagnosed with hepatitis C to get the hepatitis B vaccine. Out of the patients the Maine Center for Disease Control identified, 46% (*n* unknown) received at least one of the three doses of the vaccine.

New Substance-Related Legislative and Policy Updates

- LD 184: Amendment to the prescription monitoring program (PMP) law allowing staff members of hospitals authorized by chief medical officer, and staff of pharmacists who are authorized by the pharmacist on duty, to access PMP to better monitor controlled substances.
- LD 479: All health-care facilities that employ individuals capable of prescribing opioids must have an opioid prescribing policy including policy and procedures related to risk assessment, informed consent, and counseling on the risk of opioid abuse.
- LD 952: Allows RNs, NPs, and LPNs to dispense opioid medications for substance abuse treatment at the discretion of the medical director. Also removes the requirement that treatment facilities have to be open 7 days a week, reducing the number to 6 days a week.
- LD 1031: Changes the opioid prescribing law to increase the availability of opioids to chronic pain and palliative care patients. Removes requirement that dispensers must notify PMP when fraud is suspected. Dispensers must still notify prescribers.
- LD 1619: Requires that in a medical emergency a patient's treatment with methadone may only be disclosed if it is a medical necessity. Requires Department of Health and Human Services to create a consent form for all MAT patients to fill out.
- LD 185: Established a pilot project to treat alcohol and substance use disorders with acupuncture using National Acupuncture Detoxification Association's acupuncture protocol.

- A statewide referendum in November 2017 to expand Medicare in Maine passed with 59.1% of the vote. Implementation has been blocked by the Governor's Office. The legality of that action is currently being tested in the courts.

Exhibits

Exhibit 1. Number of Primary Admissions for Key Drugs, CY2010–2017

	2010 *N* = 13,576	2011 *N* = 12,510	2012 *N* = 12,868	2013 *N* = 13,290	2014 *N* = 11,615	2015 *N* = 10,500	2016 *N* = 9,813	2017 *N* = 7,918
Cocaine/Crack	454	456	429	443	369	261	317	340
Heroin/Morphine	928	1,058	1,386	2,035	2,691	2,780	2,758	2555
Other Opioids	4,372	4,409	4,698	4,509	3,468	2,555	2,289	1679
Marijuana	1,275	1,179	1,113	1,071	862	722	603	469
Methamphetamine	41	44	46	43	68	47	77	90
Alcohol	5,904	4,726	4,473	4,453	4,068	3,583	3,568	2642
Other	602	637	723	669	89	445	201	143

Source: Maine Office Substance Abuse and Mental Health Services.

Exhibit 2. Number of Deaths Caused by Key Drug Categories, CY2010–2017*

	2010 *N* = 167	2011 *N* = 155	2012 *N* = 163	2013 *N* = 176	2014 *N* = 208	2015 *N* = 272	2016 *N* = 376	2017 *N* = 417
Cocaine	10	13	13	10	24	35	60	91
Non-pharmaceutical fentanyl and/or analogs*	3	10	0	2	38	86	197	247
Heroin/Morphine	7	7	28	34	57	107	119	88
Pharmaceutical Opioids	124	108	101	105	113	112	123	124
Benzodiazepines	57	39	33	63	70	79	105	99
Methamphetamine	0	0	1	0	1	3	7	16

***** In 2010 and 2011 the "fentanyl" is probably pharmaceutical, but there was no evidence of a known prescription or pharmaceutical product at the scene or in the decedent medical record.

Source: Office of Chief Medical Examiner.

Exhibit 3. Number of Arrests by the Maine State Drug Enforcement Agency for Key Drug Categories, CY2010–2017

	2010 *N* = 859	2011 *N* = 605	2012 *N* = 562	2013 *N* = 603	2014 *N* = 669	2015 *N* = 677	2016 *N* = 641	2017 *N* = 527
Cocaine/Crack	189	172	89	116	113	151	106	137
Heroin	40	58	63	103	219	265	292	201
Fentanyl								33
Methamphetamine	30	23	32	51	63	85	111	91
Marijuana	197	69	96	33	38	29	7	3
Pharmaceutical Narcotics	327	236	222	226	163	140	105	46
Benzodiazepines	16	17	8	33	8	4	1	0

Source: Maine State Drug Enforcement Agency.

Exhibit 4. Percentage of Items Seized by Law Enforcement Statewide Testing for Key Drug Categories, CY2010–2017

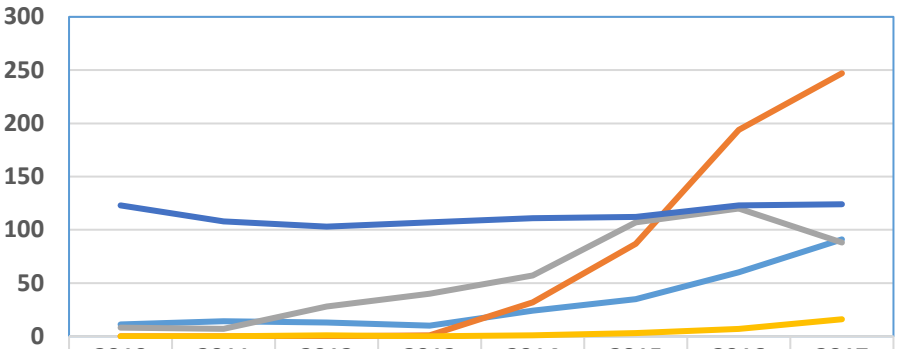
	2010 *N* = 811	2011 *N* = 995	2012 *N* = 999	2013 *N* = 1,128	2014 *N* = 974	2015 *N* = 826	2016 *N* = 725	2017 *N* = 786
Cocaine/Crack	40.6	30.7	23.1	25.1	20.8	25.8	24.4	32.8
Pharmaceutical Opioids*	20.0	26.3	25.6	21.7	21.8	10.3	8.4	5.6
Heroin/Morphine	10.1	12.2	13.4	28.0	27.8	42.4	37.0	22.9
Fentanyl & Fentanyl Analogs (excludes fentanyl patches)	0.1	0.0	0.1	0.2	3.0	9.8	22.5	27.4
Marijuana	10.1	11.0	8.0	4.6	3.6	2.3	2.6	1.0
Benzodiazepines	3.6	3.3	3.2	2.7	4.9	0.0	0.0	1.9
Cathinones	2.2	6.3	10.8	6.0	6.5	4.8	1.1	0.9
Synthetic Cannabinoids	0.0	0.0	.01	.01	0.0	0.0	0.3	0.1
MDMA/MDA	4.1	1.9	.01	.01	.01	0.0	0.6	1.5
Methamphetamine	4.4	2.6	3.5	4.2	6.5	5.9	7.9	7.3

*Includes items with fentanyl patches but not powder, residue, or acetyl fentanyl.

Note: Beginning with the 2015 NDEWS report, we have been reporting the total of seizure items tested in the year they were *received* rather than in the year they were tested. All annual lab results going back to 2010 have been recalculated for the purpose of this report to represent the year received. This provides a more current picture of drug trafficking patterns. For example, we included only items *received* by the lab in 2017 and tested that year. In addition, we include *any* drugs identified in each item. This differs from NFLIS, which counts items *tested* in a given year and includes *up to three items identified*. State lab seizure data for 2017 are from January–October. The number of items received in 2017 and tested in 2018 is not yet available.

Source: Maine Health and Environmental Testing Laboratory.

Exhibit 5. Number of Deaths from Key Illicit Drugs Alone or in Combination with Other Drugs, CY2010–2017*

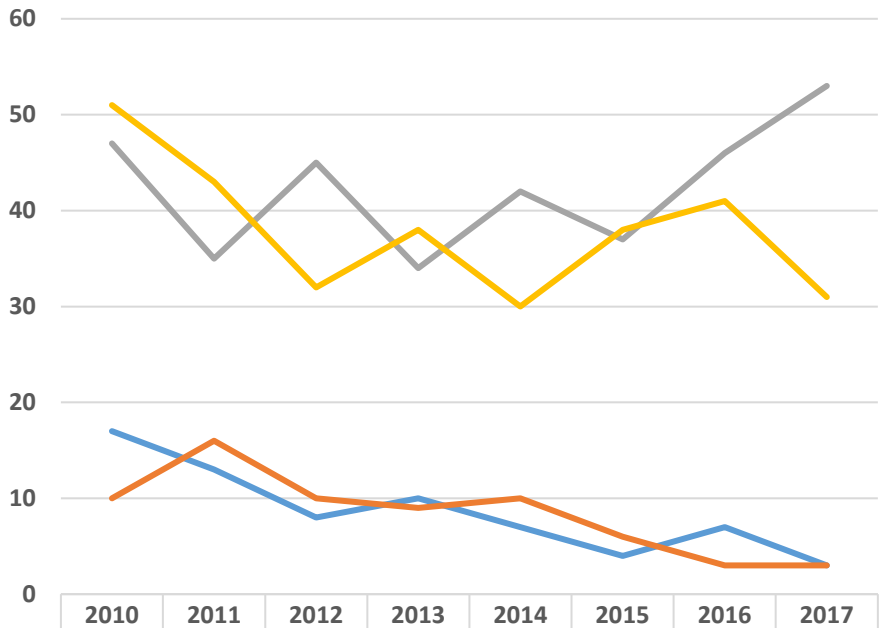


	2010	2011	2012	2013	2014	2015	2016	2017
Cocaine	11	14	13	10	24	35	60	91
Fentanyl (Includes Analogs)	0	0	0	1	32	87	194	247
Heroin/ Morphine	8	7	28	40	57	107	120	88
Methamphetamine	0	0	1	0	1	3	7	16
Pharmaceutical Opioid	123	108	103	107	111	112	123	124

* Deaths from known pharmaceutical products of morphine, fentanyl, and amphetamine have been removed from these totals.

Source: Maine Office of Chief Medical Examiner.

Exhibit 6. Number of Deaths from Key Pharmaceutical Opioids Alone or in Combination with Other Drugs, CY2010–2017*

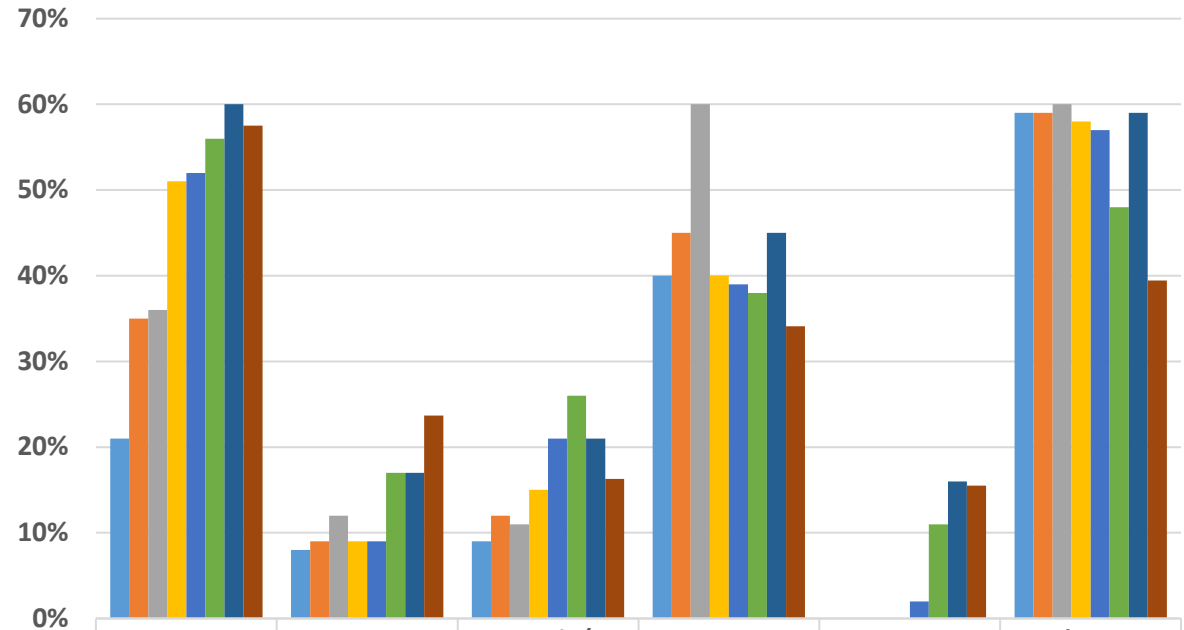


	2010	2011	2012	2013	2014	2015	2016	2017
Pharmaceutical Morphine	17	13	8	10	7	4	7	3
Pharmacutical Fentanyl	10	16	10	9	10	6	3	3
Oxycodone	47	35	45	34	42	37	46	53
Methadone	51	43	32	38	30	38	41	31

* Fentanyl patches, or known prescription sources of fentanyl or morphine were included.

Source: Maine Office of Chief Medical Examiner

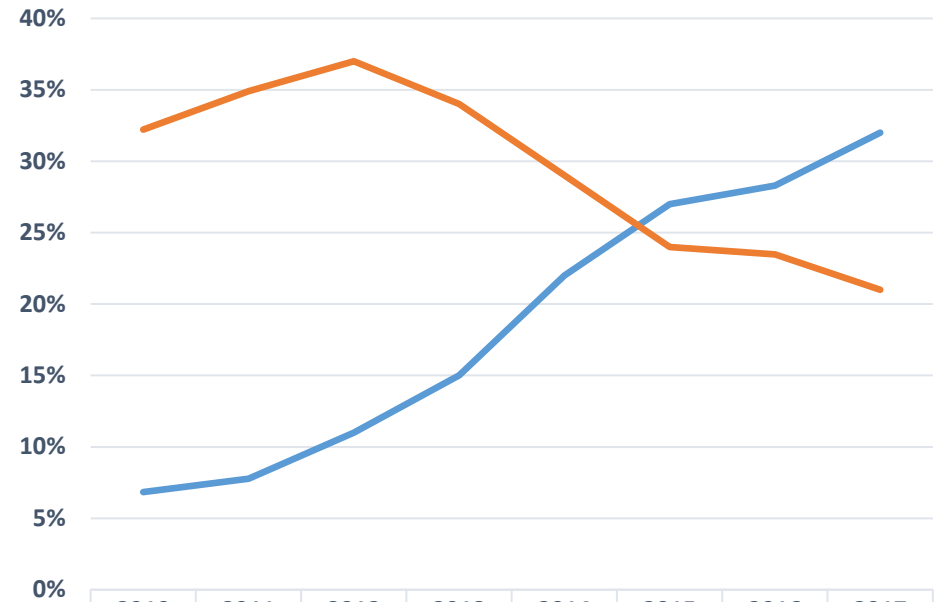
Exhibit 7. Percentage of Toxicology Tests of Impaired Drivers Positive for Key Drugs, CY2010–2017



	Marijuana	Cocaine	Heroin/ Morphine	Benzo-diazepines	Fentanyl	Pharm. Opioids
2010	21%	8%	9%	40%	0%	59%
2011	35%	9%	12%	45%	0%	59%
2012	36%	12%	11%	60%	0%	60%
2013	51%	9%	15%	40%	0%	58%
2014	52%	9%	21%	39%	2%	57%
2015	56%	17%	26%	38%	11%	48%
2016	60%	17%	21%	45%	16%	59%
2017	58%	24%	16%	34%	16%	39%

Source: Maine State Health and Environmental Testing Laboratory

Exhibit 8. Percentage of Primary Treatment Admissions for Heroin/Morphine and for Pharmaceutical Opioids, CY2010–2017



	2010	2011	2012	2013	2014	2015	2016	2017
Heroin/Morphine	7%	8%	11%	15%	22%	27%	28%	32%
Pharmaceutical Opioids	32%	35%	37%	34%	29%	24%	23%	21%

Source: Maine Office Substance Abuse and Mental Health Services

Treatment Tables

Table 1: Trends in Admissions* to Programs Treating Substance Use Disorders, Maine Residents, 2013-2017

Number of Admissions and Percentage of Admissions with Selected Substances Cited as Primary Substance at Admission, by Year and Substance

	Calendar Year									
	2013		2014		2015		2016		2017	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	**13,418**	**100%**	**12,216**	**100%**	**10,521**	**100%**	**9,781**	**100%**	**7,925**	**100%**
Primary Substance of Abuse (%)										
Alcohol	4,662	34.7%	4,185	34.3%	3,686	35.0%	3,568	36.5%	2,642	33.3%
Cocaine/Crack	448	3.3%	374	3.1%	270	2.6%	317	3.2%	340	4.3%
Heroin	2,116	15.8%	2,782	22.8%	2,850	27.1%	2,758	28.2%	2,555	32.2%
Prescription Opioids	4,724	35.2%	3,646	29.8%	2,696	25.6%	2,289	23.4%	1,679	21.2%
Methamphetamine	44	0.3%	63	0.5%	50	0.5%	77	0.8%	90	1.1%
Marijuana	1,123	8.4%	906	7.4%	757	7.2%	603	6.2%	469	5.9%
Benzodiazepines	82	0.6%	58	0.5%	60	0.6%	69	0.7%	60	0.8%
MDMA	12	0.1%	unavail/sup	unavail/sup	12	0.1%	unavail/sup	unavail/sup	7	0.1%
Synthetic Stimulants	66	0.5%	56	0.5%	78	0.7%	64	0.7%	38	0.5%
Synthetic Cannabinoids	11	0.1%	10	0.1%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	nr	nr
Other Drugs/Unknown	130	1.0%	136	1.1%	62	0.6%	36	0.4%	45	0.6%

NOTES:

***Admissions:** Includes all admissions to programs receiving State funding. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

unavail/sup: Data suppressed for counts <10; **nr:** Not Reported

SOURCE: Data provided to the Maine NDEWS SCE by the Maine Office of Substance Abuse.

Table 2: Demographic and Drug Use Characteristics of Treament Admissions* for Select Primary Substances, Maine Residents, 2017

Number of Admissions, by Primary Substance and Percentage of Admissions with Selected Demographic and Drug Use Characteristics

	Primary Substance																	
	Alcohol		Cocaine/Crack		Heroin		Prescription Opioids		Methamphetamines		Marijuana		Benzo-diazepines		Synthetic Stimulants		Synthetic Cannabinoids	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Number of Admissions (#)	**2,642**	**100%**	**340**	**100%**	**2,555**	**100%**	**1,679**	**100%**	**90**	**100%**	**469**	**100%**	**60**	**100%**	**38**	**100%**	**nr**	**nr**
Sex (%)																		
Male	1,739	65.8%	174	51.2%	1,360	53.2%	855	50.9%	57	63.3%	326	69.5%	22	36.7%	23	60.5%	nr	nr
Female	896	33.9%	166	48.8%	1,192	46.7%	818	48.7%	33	36.7%	141	30.1%	38	63.3%	15	39.5%	nr	nr
Race/Ethnicity (%)																		
White, Non-Hisp.	2,487	94.1%	312	91.8%	2,384	93.3%	1,602	95.4%	84	93.3%	420	89.6%	53	88.3%	32	84.2%	nr	nr
African-Am/Black, Non-Hisp	44	1.7%	8	2.4%	28	1.1%	13	0.8%	2	2.2%	25	5.3%	0	0.0%	0	0.0%	nr	nr
Hispanic/Latino**	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr
Asian	0	0.0%	0	0.0%	4	0.2%	0	0.0%	0	0.0%	3	0.6%	1	1.7%	0	0.0%	nr	nr
Other	87	3.3%	17	5.0%	93	3.6%	50	3.0%	4	4.4%	19	4.1%	4	6.7%	0	0.0%	nr	nr
Age Group (%)																		
Under 18	35	1.3%	0	0.0%	5	0.2%	0	0.0%	0	0.0%	152	32.4%	3	5.0%	0	0.0%	nr	nr
18-25	302	11.4%	36	10.6%	332	13.0%	112	6.7%	17	18.9%	153	32.6%	15	25.0%	4	10.5%	nr	nr
26-44	1,250	47.3%	242	71.2%	1,933	75.7%	1,192	71.0%	65	72.2%	129	27.5%	35	58.3%	27	71.1%	nr	nr
45+	1,055	39.9%	62	18.2%	285	11.2%	374	22.3%	8	8.9%	35	7.5%	7	11.7%	7	18.4%	nr	nr
Route of Administration (%)																		
Smoked	0	0.0%	198	58.2%	118	4.6%	64	3.8%	40	44.4%	445	94.9%	1	1.7%	4	10.5%	nr	nr
Inhaled	0	0.0%	87	25.6%	691	27.0%	678	40.4%	21	23.3%	5	1.1%	18	30.0%	12	31.6%	nr	nr
Injected	0	0.0%	52	15.3%	1,683	65.9%	263	15.7%	27	30.0%	0	0.0%	2	3.3%	5	13.2%	nr	nr
Oral/Other/Unknown	2,642	100.0%	2	0.6%	53	2.1%	656	39.1%	1	1.1%	18	3.8%	39	65.0%	16	42.1%	nr	nr
Secondary Substance (%)																		
None	1,390	52.6%	40	11.8%	408	16.0%	380	22.6%	16	17.8%	128	27.3%	9	15.0%	8	21.1%	nr	nr
Alcohol	0	0.0%	48	14.1%	214	8.4%	167	9.9%	12	13.3%	214	45.6%	4	6.7%	9	23.7%	nr	nr
Cocaine/Crack	99	3.7%	7	2.1%	562	22.0%	169	10.1%	9	10.0%	23	4.9%	9	15.0%	0	0.0%	nr	nr
Heroin	90	3.4%	95	27.9%	2	0.1%	341	20.3%	13	14.4%	17	3.6%	9	15.0%	5	13.2%	nr	nr
Prescription Opioids	160	6.1%	65	19.1%	809	31.7%	178	10.6%	13	14.4%	32	6.8%	12	20.0%	5	13.2%	nr	nr
Methamphetamines	8	0.3%	11	3.2%	41	1.6%	19	1.1%	0	0.0%	5	1.1%	0	0.0%	0	0.0%	nr	nr
Marijuana	801	30.3%	54	15.9%	356	13.9%	273	16.3%	13	14.4%	0	0.0%	13	21.7%	3	7.9%	nr	nr
Benzodiazepines	21	0.8%	12	3.5%	104	4.1%	66	3.9%	2	2.2%	18	3.8%	0	0.0%	0	0.0%	nr	nr
Synthetic Stimulants	10	0.4%	5	1.5%	29	1.1%	27	1.6%	8	8.9%	7	1.5%	3	5.0%	0	0.0%	nr	nr
Synthetic Cannabinoids	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr

NOTES:

***Admissions:** Includes all admissions to programs receiving State funding. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

****Hispanic/Latino:** Hispanic/Latino ethnicity not reported.

unavail/sup: Data suppressed for counts <10; **nr:** Not Reported; **Percentages** may not sum to 100 due to missing data, rounding, and/or because not all possible categories are presented in the table. Category frequencies may not sum to drug total due to missing data and/or not all possible categories are presented in the table.

SOURCE: Data provided to the Maine NDEWS SCE by the Maine Office of Substance Abuse.

Sources

DATA FOR THIS REPORT WERE DRAWN FROM THE FOLLOWING SOURCES:

Treatment admissions data were provided by the Maine Department of Health and include all admissions to programs receiving State funding. This report includes all 2017 treatment admissions, including admissions for methadone clinics, and makes comparisons with prior calendar years. Totals include alcohol admissions (Exhibits 1 and 8). Data are continuously updated and may be different from previous reports. Note that treatment numbers overall have decreased substantially in the past several years, due to reduced state funding. That total was 13,418 in 2013 but has steadily declined and was only 7,925 in 2017.

Mortality data were generated by analysis of State of Maine Office of Chief Medical Examiner case files for all drug-induced cases through December 2017. That office investigates all drug-related cases statewide (Exhibits 2, 5, and 6).

Arrest data were provided by the Maine State Drug Enforcement Agency (MDEA), which directs eight multijurisdictional task forces covering the entire state, generating approximately 60% of all Uniform Crime Report (UCR) drug arrests statewide. Data totals include arrests for possession or trafficking, extending through the end of 2017 (Exhibit 3).

Forensic laboratory data on drug seizures were provided by the Maine State Health and Environmental Testing Laboratory, which tests all samples of drugs seized by the MDEA, as well as by other police and sheriff departments. Data were provided for 2017 (Exhibit 4).

Forensic laboratory data on toxicology testing of drug-impaired drivers were provided by the Maine State Health and Environmental Testing Laboratory, which tests urine or blood samples of drivers suspected of driving under the influence of drugs. Data were provided for January through October 2017 (Exhibit 7).

Infectious Disease Related to Drug Abuse. Data were provided by the Maine Center for Disease Control for HIV/AIDS, hepatitis B and hepatitis C, updated through 2017**.**

ADDITIONAL INFORMATION ON SUBSTANCE USE IN THIS SCS:

Sorg, Marcella H. (2018) *Expanded Maine Drug Death Report for 2017*. Maine Office of Attorney General. Augusta, Maine. http://www.maine.gov/ag/news/article.shtml?id=741243

For additional information about the substances and substance use patterns discussed in this report, please contact Marcella H. Sorg, Ph.D., R.N., D-ABFA, Director, Rural Drug and Alcohol Research Program, Margaret Chase Smith Policy Center, University of Maine, Building 4, 5784 York Complex, Orono, ME 04469, Phone: 207–581–2596, Fax: 207–581–1266, E-mail: mhsorg@maine.edu