

# **NDEWS** *National Drug Early Warning System*

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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, 2017

November 2017

NDEWS Coordinating Center

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## Sentinel Community Site (SCS) Locations

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# National Drug Early Warning System (NDEWS) Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2017

The National Drug Early Warning System (NDEWS) was launched in 2014 with the support of the National Institute on Drug Abuse (NIDA) to collect and disseminate timely information about drug trends in the United States. The Center for Substance Abuse Research (CESAR) at the University of Maryland manages the NDEWS Coordinating Center and has recruited a team of nationally recognized experts to collaborate on building NDEWS, including 12 Sentinel Community Epidemiologists (SCEs). The SCEs serve as the point of contact for their individual Sentinel Community Site (SCS), and correspond regularly with NDEWS Coordinating Center staff throughout the year to respond to queries, share information and reports, collect data and information on specific drug topics, and write an annual *SCE Narrative* describing trends and patterns in their local SCS.

This *Sentinel Community Site Drug Use Patterns and Trends* report contains three sections:

- ◇ The *SCS Snapshot*, prepared by Coordinating Center staff, contains graphics that display information on drug use, substance use disorders and treatment, drug poisoning deaths, and drug seizures. The *SCS Snapshots* attempt to harmonize data available for each of the 12 sites by presenting standardized graphics from local treatment admissions and four national data sources.
- ◇ The *SCE Narrative*, written by the SCE, provides their interpretation of important findings and trends based on available national data as well as sources specific to their area, such as data from local medical examiners or poison control centers. As a local expert, the SCE is able to provide context to the national and local data presented.
- ◇ The *SCS Data Tables*, prepared by Coordinating Center staff, include information on demographic and socioeconomic characteristics of the population, drug use, substance use disorders and treatment, drug poisoning deaths, and drug seizures for the Sentinel Community Site. The *SCS Data Tables* attempt to harmonize data available for each of the 12 sites by presenting standardized information from local treatment admissions and five national data sources.

The *Sentinel Community Site Drug Use Patterns and Trends* reports for each of the 12 Sentinel Community Sites and detailed information about NDEWS can be found on the NDEWS website at [www.ndews.org](http://www.ndews.org).

# National Drug Early Warning System (NDEWS) Sentinel Community Site (SCS) Drug Use Patterns and Trends: SCS Snapshot

The *SCS Snapshot* is prepared by NDEWS Coordinating Center staff and contains graphics that display information on drug use, substance use disorders and treatment, drug poisoning deaths, and drug seizures. The *SCS Snapshots* attempt to harmonize data available for each of the 12 sites by presenting standardized graphics from local treatment admissions and four national data sources:

- ◊ National Survey on Drug Use and Health;
- ◊ Youth Risk Behavior Survey;
- ◊ SCE-provided local treatment admissions data;
- ◊ National Vital Statistics System mortality data queried from CDC WONDER; and
- ◊ National Forensic Laboratory Information System.

The *SCS Snapshots* for each of the 12 Sentinel Community Sites and detailed information about NDEWS can be found on the NDEWS website at [www.ndews.org](http://www.ndews.org).

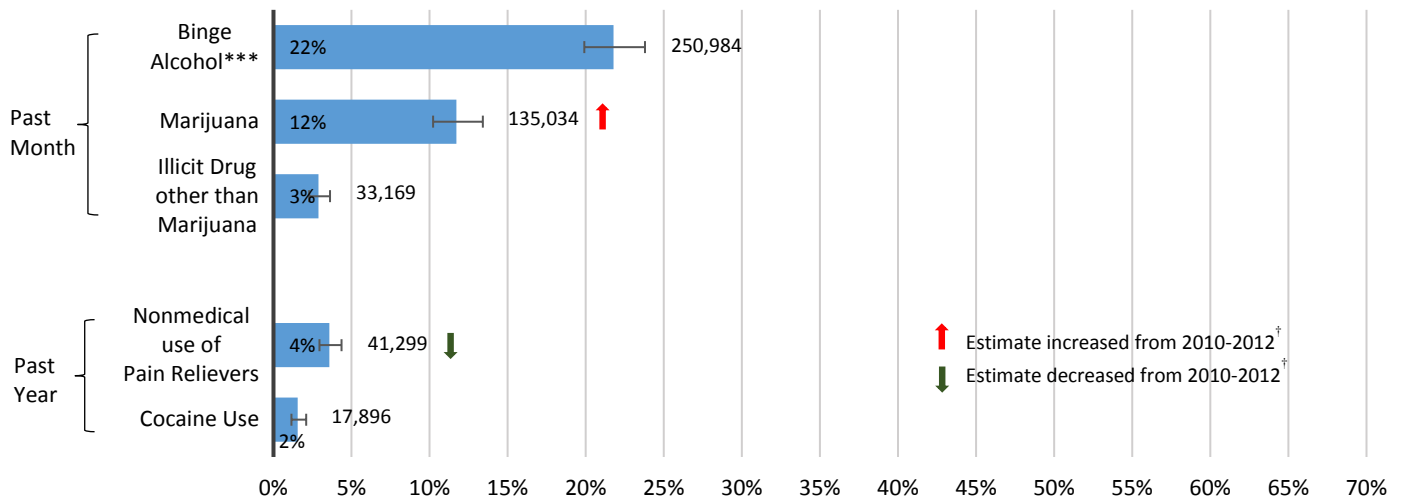
# Maine SCS Snapshot, 2017

## Substance Use

### National Survey on Drug Use and Health (NSDUH): Survey of U.S. Population\*

#### Persons 12+ Years Reporting Selected Substance Use, Maine, 2012-2014

Estimated Percent, 95% Confidence Interval, and Estimated Number of Persons\*\*



\*U.S. Population: U.S. civilian non-institutionalized population. \*\*Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (1,151,999) from Table C1 of the NSDUH Report. \*\*\*Binge Alcohol: Defined as drinking five or more drinks on the same occasion.

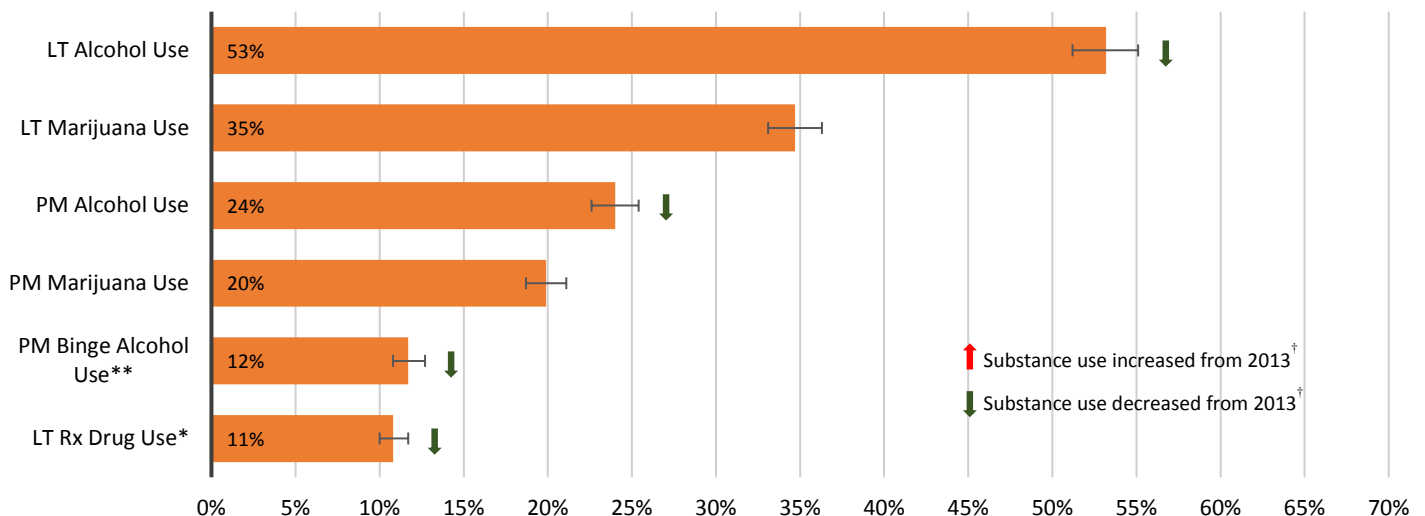
†Statistically significant change:  $p < 0.05$ .

Source: Adapted by the NDEWS Coordinating Center from data provided by SAMHSA, NSDUH. Annual averages based on combined 2012 to 2014 NSDUH data.

### Youth Risk Behavior Survey (YRBS): Survey of Student Population

#### Public High-School Students Reporting Lifetime (LT) or Past Month (PM) Use of Selected Substances, Maine, 2015

Estimated Percent and 95% Confidence Interval



\*LT Rx Drug Use: Defined as ever taking prescription drugs without a doctor's prescription one or more times during their life.

\*\*PM Binge Alcohol Use: Defined as having five or more drinks of alcohol in a row (within a couple of hours on at least 1 day during the 30 days before the survey).

†Statistically significant change:  $p < 0.05$  by t-test.

See *Sentinel Community Site (SCS) Data Tables and Overview & Limitations* section for more information regarding the data.

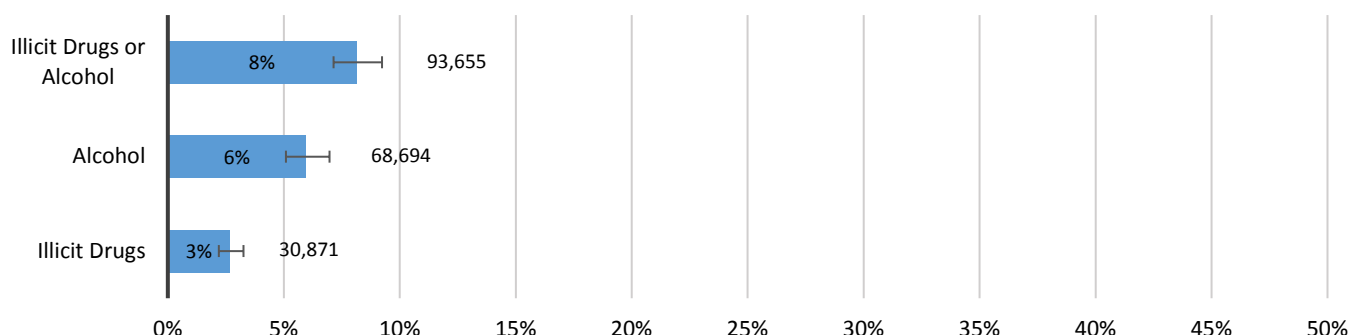
Source: Adapted by the NDEWS Coordinating Center from data provided by CDC, 1991-2015 High School YRBS data.

# Substance Use Disorders and Treatment

## National Survey on Drug Use and Health (NSDUH): Survey of U.S. Population\*

### Substance Use Disorders\*\* in Past Year Among Persons 12+ Years, Maine, 2012-2014

Estimated Percent, 95% Confidence Interval, and Estimated Number of Persons\*\*\*



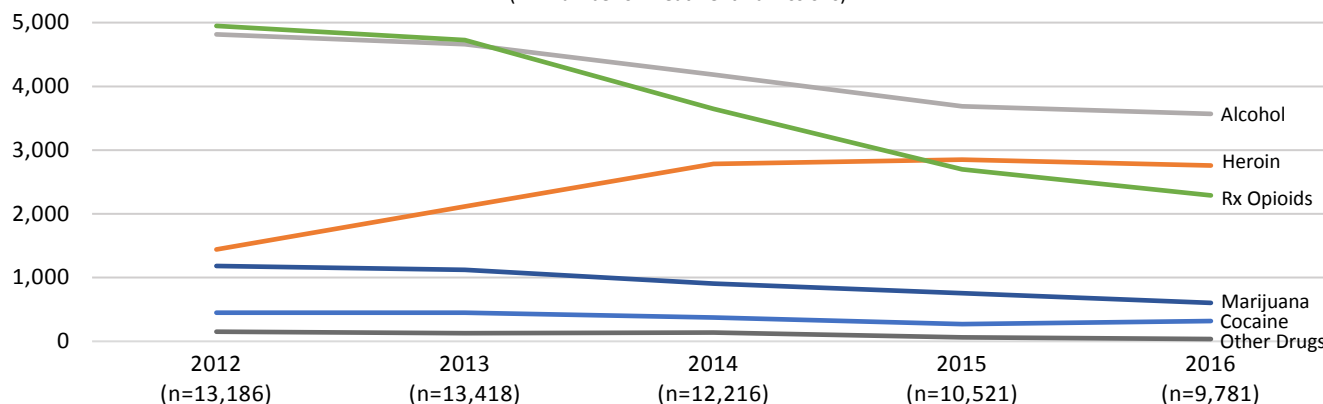
\*U.S. Population: U.S. civilian non-institutionalized population. \*\*Substance Use Disorders in Past Year: Persons are classified as having a substance use disorder in the past 12 months based on responses to questions that meet the criteria specified in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. \*\*\*Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (1,151,999) from Table C1 of the NSDUH Report.

Source: Adapted by the NDEWS Coordinating Center from data provided by SAMHSA, NSDUH. Annual averages based on combined 2012 to 2014 NSDUH data.

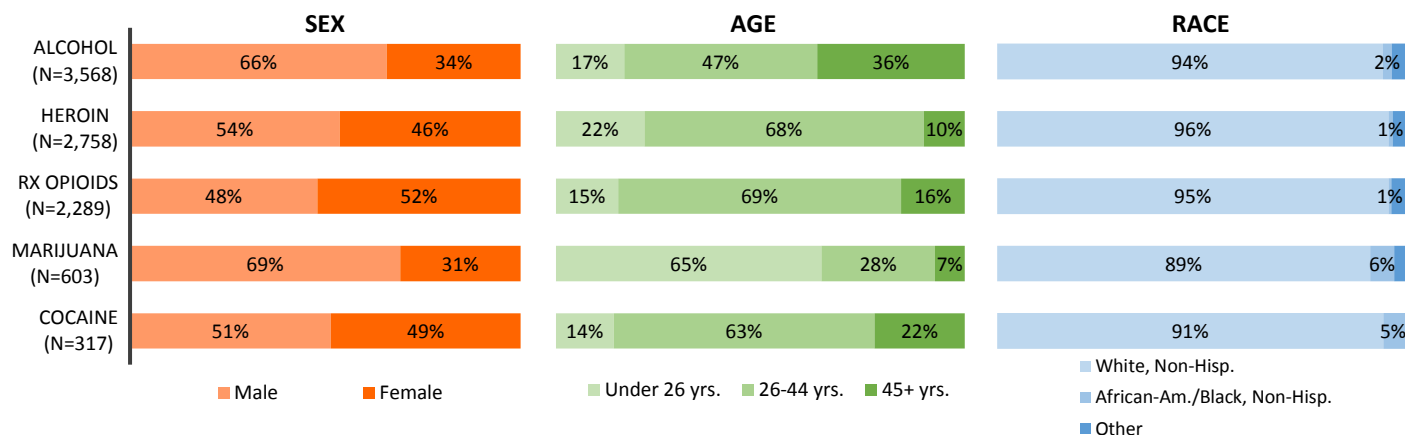
## Treatment Admissions Data from Local Sources

### Trends in Treatment Admissions\*, by Primary Substance of Abuse, Maine, 2012-2016

(n = Number of Treatment Admissions)



### Demographic Characteristics of Treatment Admissions\*, Maine, 2016



\*Treatment Admissions: Includes all admissions to programs receiving State funding. Percentages may not sum to 100 due to rounding.

See *Sentinel Community Site (SCS) Data Tables* and *Overview & Limitations* section for more information regarding the data.

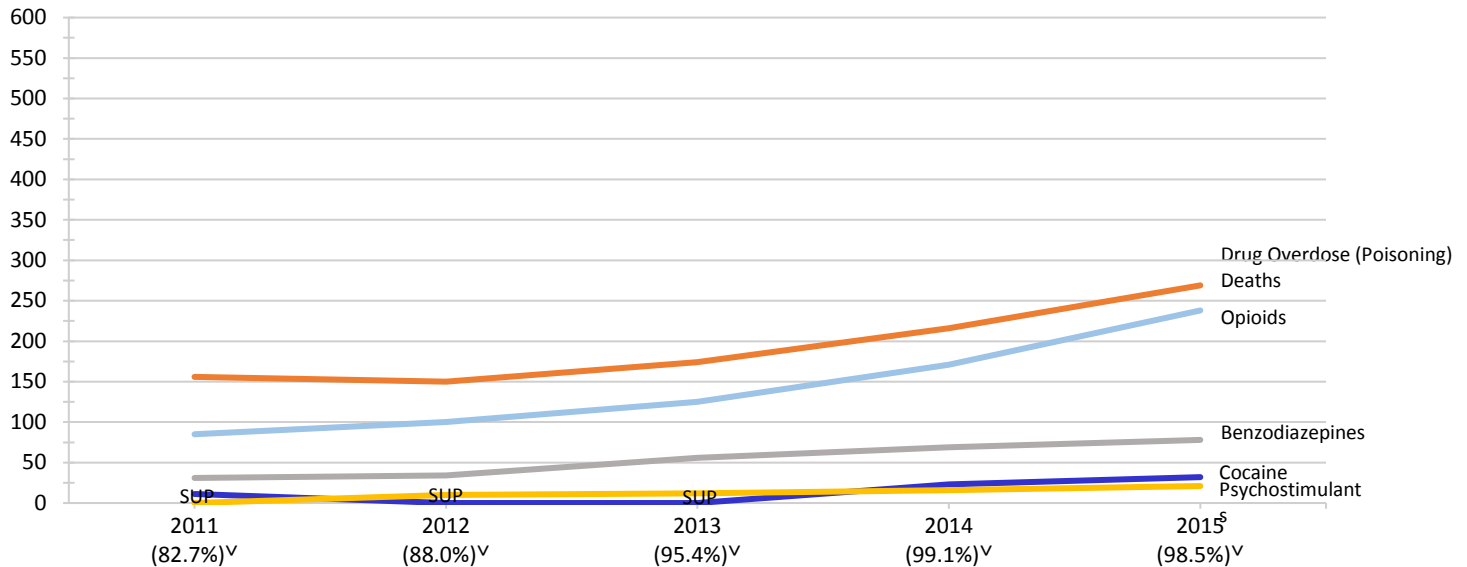
Source: Data provided to the Maine NDEWS SCE by the Maine Office of Substance Abuse.

# Drug Overdose (Poisoning) Deaths

National Vital Statistics System (NVSS) via CDC WONDER

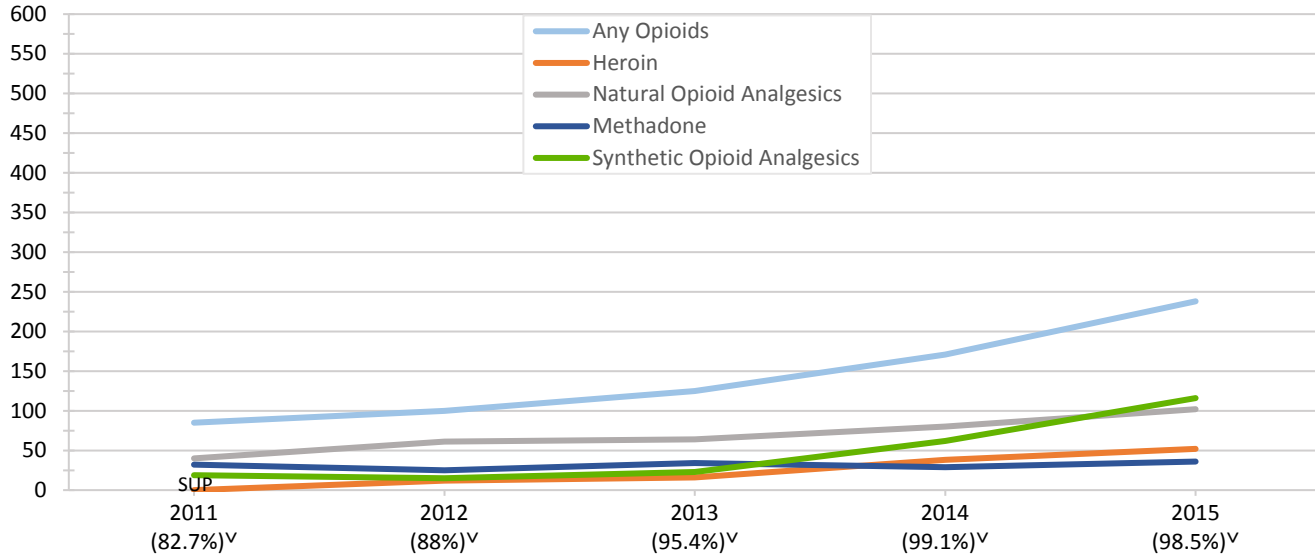
## Trends in Drug Overdose (Poisoning) Deaths\*, by Drug\*\*, Maine, 2011–2015

(Number of Deaths and Percent of Drug Overdose (Poisoning) Deaths with Drug(s) Specified<sup>†</sup>)



## Trends in Opioid Overdose (Poisoning) Deaths\*, by Opioid, Maine, 2011–2015

(Number of Deaths, by Drug\*\* and Percent of Drug Overdose (Poisoning) Deaths with Drug(s) Specified<sup>†</sup>)



\*Drug Overdose (Poisoning) Deaths: Defined as deaths with ICD-10 underlying cause-of-death (UCOD) codes: X40-X44, X60-X64, X85, and Y10-Y14. \*\*Drug Overdose (Poisoning) Deaths, by Drug: Drug overdose (poisoning) deaths with ICD-10 multiple cause-of-death (MCD) T-codes: Benzodiazepines (T42.4); Cocaine (T40.5); Psychostimulants with Abuse Potential [excluding cocaine] (T43.6)—may include amphetamines, caffeine, MDMA, methamphetamine, and/or methylphenidate; Any Opioids (T40.0-T40.4, OR T40.6). Specific opioids are defined: Opium (T40.0); Heroin (T40.1); Natural Opioid Analgesics (T40.2)—may include morphine, codeine, and semi-synthetic opioid analgesics, such as oxycodone, hydrocodone, hydromorphone, and oxymorphone; Methadone (T40.3); Synthetic Opioid Analgesics [excluding methadone] (T40.4)—may include drugs such as tramadol and fentanyl; and Other and Unspecified Narcotics (T40.6). <sup>†</sup>Percent of Drug Overdose (Poisoning) Deaths with Drug(s) Specified: The percentage of drug overdose (poisoning) deaths with specific drugs mentioned varies considerably by state/catchment area. This statistic describes the annual percentage of drug overdose (poisoning) deaths that include at least one ICD-10 MCD code in the range T36-T50.8. SUP=Suppressed: Counts are suppressed for subnational data representing 0–9 deaths. See *Sentinel Community Site (SCS) Data Tables and/or Overview & Limitations* for additional information on mortality data.

**Source:** Adapted by the NDEWS Coordinating Center from data provided by the Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, Multiple cause of death 1999–2015, available on the CDC WONDER Online Database, released 2016. Data compiled in the Multiple cause of death 1999–2015 were provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved between February–June 2017, from <http://wonder.cdc.gov/mcd-icd10.html>

# Law Enforcement Drug Seizures

## National Forensic Laboratory Information System (NFLIS)

### Drug Reports\* for Items Seized by Law Enforcement in Maine in 2016 DEA National Forensic Laboratory Information System (NFLIS)

Top 10 Drug Reports and Selected Drug Categories

Drug Identified	Number (#)	Percent of Total Drug Reports (%)
<b>TOTAL Drug Reports</b>	<b>1,103</b>	<b>100%</b>
<b>Top 10 Drug Reports‡</b>		
Heroin	306	27.7%
Cocaine	216	19.6%
Fentanyl	178	16.1%
Methamphetamine	65	5.9%
Cannabis	35	3.2%
Oxycodone	29	2.6%
Caffeine	27	2.4%
6-Monoacetylmorphine	24	2.2%
Acetylfentanyl	20	1.8%
Buprenorphine	20	1.8%
Phenylimidothiazole Isomer Undetermined	20	1.8%
<b>Top 10 Total</b>	<b>940</b>	<b>85.2%</b>
<b>New Psychoactive Substances (NPS) Drug Categories†</b>		
Fentanyl and Other Fentanyl‡	206	18.7%
Synthetic Cathinones	14	1.3%
Synthetic Cannabinoids	2	0.2%
2C Phenethylamines	0	0.0%
Piperazines	0	0.0%
Tryptamines	0	0.0%
<b>Any Opioid‡</b>	<b>619</b>	<b>56.1%</b>

Top Drug Reports Among Select\*\* NPS Drug Categories†  
(% of Category)

#### Fentanyl and Other Fentanyl‡ (n=206)

Fentanyl (86%)  
Acetylfentanyl (10%)  
Furanyl Fentanyl (4%)

#### Synthetic Cathinones (n=14)

alpha-PVP (36%)  
Ethylone (14%)  
Dibutylone (14%)  
TH-PVP (7%)  
4-Chloro-alpha-PVP (7%)  
4-Fluoro-PV8 (7%)  
alpha-PBP (7%)  
Pentylone (7%)

#### Synthetic Cannabinoids (n=2)

AB-CHMINACA (50%)  
AB-FUBINACA (50%)

\*Drug Report: Drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database. The NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed. The timeframe is January-December 2016.

\*\*Select NPS Drug Categories: The 3 most prevalent NPS drug categories.

Percentages may not sum to 100 due to either rounding, missing data and/or because not all possible categories are presented in the table.

†Drug Categories/Any Opioid: See *Sentinel Community Site (SCS) Data Table 6b* for a full list of the drug reports for each NPS and Opioid category.

‡More than 10 top drug reports are listed because of a numerical tie between acetylfentanyl, buprenorphine, and phenylimidothiazole isomer undetermined reports.

§Other Fentanyl is substances that are structurally related to fentanyl (e.g., acetylfentanyl and butyl fentanyl). See *Notes About Data Terms in Overview and Limitations* section for a list of Other Fentanyl that were reported to NFLIS from the 12 NDEWS sites.

**Source:** Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Diversion Control Division, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from the NFLIS Data Query System (DQS) on May 28, 2017.



# National Drug Early Warning System (NDEWS) Sentinel Community Site (SCS) Drug Use Patterns and Trends: SCE Narrative

The *SCE Narrative* is written by the Sentinel Community Epidemiologist (SCE) and provides their interpretation of important findings and trends based on available national data as well as sources specific to their area, such as data from local medical examiners or poison control centers. As a local expert, the SCE is able to provide context to the national and local data presented.

This *SCE Narrative* contains the following sections:

- ◇ Highlights
- ◇ Primary and Emerging Substance Use Problems
- ◇ Local Research Highlights (if available)
- ◇ Infectious Diseases Related to Substance Use (if available)
- ◇ Legislative and Policy Updates

The *SCE Narratives* for each of the 12 Sentinel Community Sites and detailed information about NDEWS can be found on the NDEWS website at [www.ndews.org](http://www.ndews.org).

# National Drug Early Warning System (NDEWS)

## Maine Sentinel Community Site (SCS)

### Drug Use Patterns and Trends, 2017: SCE Narrative

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## Highlights

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- **Benzodiazepines** remain a key drug involved in drug use and abuse. Although the percentage of drug-induced deaths caused by benzodiazepines had declined to 79 (29%) in 2015, it increased sharply to 105 (28%) in 2016. The percentage of impaired drivers testing positive for any benzodiazepines rose sharply as well, from 117 (38%) in 2015 to 170 (45%) in 2016.
- **Cocaine/crack** abuse indicators are mixed in 2016. The number of drug deaths involving cocaine nearly doubled from 35 (13%) in 2015 to 60 (16%) in 2016. The number of impaired drivers testing positive for cocaine also increased from 51 (17%) in 2015 to 66 (17%) in 2016. Arrests by the Maine Drug Enforcement Agency (MDEA), however, declined from 151 (22%) in 2015 to 106 (17%) in 2016. The percentage of cocaine-positive law enforcement items received and tested by the Maine State Health and Environmental Testing Laboratory (State lab) declined slightly from 26% in 2015 to 24% in 2016.
- **Heroin** abuse indicators stabilized in 2016. Deaths caused by heroin increased in number slightly from 2015 to 2016, from 107 to 119, but declined in percentage from 39% in 2015 to 32% in 2016. The percentage of impaired drivers testing positive for heroin/morphine declined from 26% to 21%. In 2015, the percentage of MDEA arrests was 39%, increasing to 46% in 2016. The percentage of heroin-positive law enforcement items received and tested in 2016 by the State lab declined slightly from 42% in 2015 to 37% in 2016.
- The percentage of drug-impaired drivers with **cannabis** positive urine was 172 (56%) in 2015 and rose to 228 (60%) in 2016.
- **MDMA** indicators are very low and appear to be stable.
- **Methamphetamine** indicators continue to show increasing trends at mostly low levels. There were 3 (1%) 2015 deaths rising to 7 (2%) in 2016. Only 3% of impaired drivers had methamphetamine-positive urine in 2015, rising to 6% in 2016. Nevertheless, the incidence of methamphetamine small lab incidents has been rising sharply over the last several years, going from 28 in 2014 to 56 in 2015, then more than doubling to 125 in 2016. Similarly, the percentage of statewide law enforcement items received and tested by the State lab increased slightly from 6% in 2015 to 8% in 2016.
- Indicators for pharmaceutical and illicitly produced **opioids**, including all forms of **fentanyl**, remain very high. Nonpharmaceutical fentanyl abuse has increased substantially and is driving the mortality statistics. There were 111 (41%) deaths from pharmaceutical opioids, excluding nonpharmaceutical fentanyl, in 2015, rising in number to 123 (33%) in 2016. Nonpharmaceutical fentanyl and fentanyl analogs contributed to 197 (52%) of Maine's 2016 drug-induced deaths, a 129% increase from 86 (32%) deaths in 2015. Fentanyl was present in 10% of forensic laboratory items seized by law enforcement and tested by the State lab in 2015 but rose to 21% in 2016. The percentage of pharmaceutical opioid-positive urinalyses among impaired drivers increased substantially from 147 (48%) in 2015 to 223 (59%) in 2016. All forms of fentanyl and morphine are excluded from this total. Fentanyl was found in 34 (11%) of impaired drivers in 2015, rising to 60 (16%) in 2016.
- **Synthetic cathinone** abuse has been at low levels and declining trends since 2011 and 2012. There were no deaths in 2016. Among law enforcement seizures, both the number and the variety have decreased.

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## Primary and Emerging Substance Use Problems

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### BENZODIAZEPINES

Benzodiazepines remain a ubiquitous presence in drug-induced death and drug-impaired driver toxicology. They were named as a cause of death, generally in combination with other drugs or alcohol, in 105 (28%) of drug-induced deaths in 2016, which was an increase in number from 79 (29%) in 2015. In 2016, benzodiazepines were identified in 170 (45%) of impaired driver toxicology tests, up from 117 (38%) in 2015. By contrast, benzodiazepines were found in only 1.9% of 2016 law enforcement items received for testing at the Maine State Health and Environmental Testing Laboratory (State lab)<sup>1</sup> and in less than 1% of 2016 Maine State Drug Enforcement Agency (MDEA) arrests.

The number of primary benzodiazepine treatment admissions declined from 99 (1%) in 2011 to 69 (also 1%) in 2016. Fifty-eight percent of admissions are female, and most (67%) are in the 26–44 age group. The most prevalent secondary problem substances reported for benzodiazepine admissions are marijuana (26%) and prescription opioids (28%).

### COCAINE/CRACK

Cocaine/crack abuse indicators are mixed. Deaths and primary admissions increased in 2015–2016, while arrests and seizures decreased. The number of cocaine-induced deaths climbed from 10 (6%) in 2010 to 60 (16%) in 2016, a 500% increase. 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 ( $n = 66$ ). The number of cocaine arrests rose sharply in 2013 along with heroin, and has fluctuated, most recently increasing sharply to 151 in 2015, then falling 30% to 106 in 2016. Cocaine was found in 24% of law enforcement items received for testing<sup>2</sup> at the State lab in 2016, which tests all samples of drugs seized by the MDEA, as well as by other police and sheriff departments. This is a slight decrease from 26% in 2015. The National Forensic Laboratory Information System (NFLIS) reported that cocaine was identified in 216 (19.6%) items in 2016 in Maine, ranked second behind heroin. This compares to the national percentage of 13.9% of 1,452,594 items tested, and a rank of third, just ahead of heroin.

The proportions of primary cocaine treatment admissions stayed stable at 3% from 2013 to 2016. Fifty-one percent of admissions were male, and most, 63%, were in the 26–44 age group. The most prevalent secondary problem substances reported for cocaine admissions were heroin/morphine (23%) and alcohol (22%). Most (192, 61%) reported smoking as the route of administration, with 25% reporting inhalation and 13% injection.

<sup>1</sup> Beginning with the 2015 NDEWS report, we are 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.

<sup>2</sup> We included only items *received* by the State lab in 2016 and tested that year. We counted all items in which cocaine was identified, including all drugs identified in every item. This differs from NFLIS, which counts items tested in a given year and includes up to three items identified.

## MARIJUANA

Marijuana indicators continue to show mixed levels and trends, likely in response to recent legalization for recreational use. Primary marijuana treatment admissions declined very slightly from 7% in 2015 to 6% in 2016. 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 2016, it was 69% male, 40% younger than 18, and 25% 18–25.

Arrests continue to decline, reaching 29 (4%) in 2015, and 7 (1%) in 2016. By contrast, the percentage of drug-impaired drivers with cannabinoid-positive urine has increased since 2010, reaching 172 (56%) in 2015, and 228 (60%) in 2016. NFLIS reported that 1.7% of 1,327 items tested in Maine in 2015 were positive for cannabis, ranking tenth among drug frequencies; this grew to 3.2% in 2016, ranking fifth among drug categories. This compares to national NFLIS figures in which cannabis ranks first, with 358,446 (25%) of 1,452,594 items testing positive.

## METHAMPHETAMINE

Methamphetamine indicators continue at fairly low levels but are mostly increasing. Seven (2%) methamphetamine deaths were identified in 2016, up from 3 (1%) in 2015. Among 381 drug-impaired drivers tested in 2016, 21 (6%) had a methamphetamine-positive urinalysis screen. This represents a modest increase from 8 (3%) in 2015. The MDEA responded to 125 clandestine, small lab incidents in 2016, more than double the 56 incidents in 2015; these numbers have doubled each year since 2013. Similarly, law enforcement seizures received for testing at the State lab show an increase since 2012 in items testing positive for methamphetamine, peaking at 57 (7.9%) in 2016, which was an increase from 50 (6%) in 2015. NFLIS reported 73 (5.5%) of Maine items tested as methamphetamine in 2015, and 65 (5.9%) in 2016, both years ranking fourth. National NFLIS statistics show methamphetamine ranked second in 2016, with 21.5% of items testing positive. MDEA arrests for methamphetamine manufacture, trafficking, or possession have been rising since 2008. There were a total of 111 (17%) in 2016, up from 85 (13%) in 2015. Treatment admissions have remained stable at low levels. The number of primary methamphetamine treatment admissions plateaued in the 40s from 2010 to 2013, but has since fluctuated. In 2014, admissions increased to 63, dropped to 50 in 2015, then rose again to 77 in 2016. The gender ratio is nearly equal, with 51% male. Most (47, 61%) admissions are in the 26–44 age group, with 25% in the 18–25 group.

## NEW PSYCHOACTIVE SUBSTANCES (OTHER THAN OPIOIDS)

### MDMA/MDA

MDMA indicators are very low in number. There was one (<1%) MDEA arrest for MDMA in 2016, and two (1%) deaths due to MDA. Four impaired drivers out of 381 (1%) had an MDMA/MDA-positive toxicology in 2016. NFLIS reported only 2 law enforcement items tested positive in Maine for MDMA and 2 for MDA in 2016 (0.4%), compared to the national prevalence, which was also less than 1%. The number of MDMA admissions has been suppressed in 2016 due to low numbers; in 2015 it was 12 (less than 1%).

### Synthetic Cathinones

Synthetic cathinone abuse is now at very low levels, having declined since the 2011–2012 peak. Cathinones

were involved in 9% of drug arrests in 2013, 8% in 2014, and 5% in 2015. Among law enforcement seizures received by the State lab for testing, the number and variety of different compounds decreased from 63 items representing 12 substances in 2014 to 40 items representing 6 substances in 2015 and 8 items (1%) representing 5 substances in 2016: alpha-PVP (alpha-Pyrrolidinopentiophenone) ( $n = 3$ ), pentalone ( $n = 1$ ), ethylone ( $n = 2$ ), bk-DMBDB ( $n = 1$ ), and TH-PVP ( $n = 1$ ). Among 2015 treatment admissions, 78 were for a primary problem described as “other stimulants,” which includes cathinones. The 2016 admission total for “other stimulants” was 64. No 2016 deaths were attributed to cathinones.

## OPIOIDS

### Heroin

Heroin/morphine abuse indicators increased dramatically beginning in 2012 and 2013. Deaths from heroin/morphine,<sup>3</sup> alone or in combination with other drugs or alcohol, bottomed out at 4% during 2010 and 2011, then rose sharply starting in 2012. Heroin deaths doubled in 2015, reaching 107 (39%), and rose further to 119 (32%) of deaths in 2016. Approximately one year after the upsurge in heroin deaths, in 2013, an associated outbreak of deaths from nonpharmaceutical fentanyl occurred, ultimately eclipsing the number of heroin deaths. Heroin and nonpharmaceutical fentanyl have often been found in combination in decedents; in 2016, 75 (63%) of heroin deaths also have nonpharmaceutical fentanyl identified as a cause of death.

Heroin/morphine-positive impaired driver urinalysis toxicology tests rose fairly sharply from 8% in 2009 to 21% in 2014. In 2015, 80 (26%) of drivers were heroin/morphine positive. In 2016, there again were 80 (21%). Of those 80 drivers, 12 (15%) also tested positive for fentanyl. Heroin arrests by the MDEA increased from a low of 5% in 2010 to 39% in 2015. In 2016, there were 292 (46%) heroin arrests by MDEA. Statewide, 350 (42%) law enforcement items were received by the State lab in 2015 that tested positive for heroin. As of the end of 2016, 269 (37%) items received in 2016 had tested positive for heroin. Of these, only 8 (3%) were positive for both heroin and fentanyl and 4 (2%) for heroin and acetyl fentanyl. A total of 4 (2%) of items were positive for both heroin and cocaine. NFLIS reported that 306 (27.7%) of law enforcement items tested in 2016 were positive for heroin, making it number one among all drug frequencies. The national NFLIS prevalence for heroin in 2016 is 12%, ranked fourth.

Primary heroin admissions rose from 6% in 2010 to 27% in 2015; there were 2,758 (28%) in 2016, more than for prescription opioids. Males (54%) slightly outnumbered females (46%), with the 26–44 age group comprising 68%, which was down slightly from 72% in 2015.

### Other Opioids

Indicators for illicitly produced fentanyl and its analogs remain extremely high, contributing to 86 (32%) of Maine’s drug-induced deaths in 2015, and increasing 126% to 197 (52%) in 2016. Of these, 137 (71%) are male, and the average age is 37 (age range 18–67). Most (81%) of the 197 had one or more drugs (including alcohol) listed as a cause of death in addition to fentanyl. Forty (21%) had one or more pharmaceutical opioids listed as a co-intoxicant, 75 (39%) had heroin/morphine listed, and 34 (18%) had cocaine. Alcohol was a co-intoxicant in 47

<sup>3</sup> Presumed heroin deaths are 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 the prescription monitoring program that rules out known pharmaceuticals. Nonpharmaceutical fentanyl deaths are identified using the same approach.

(24%) of these cases, and benzodiazepines in 50 (26%). Seventy-five cases involved a fentanyl analog, including acetyl fentanyl (47% of the 75), furanyl fentanyl (41%), despropionyl fentanyl (4%), para-fluoro-isobutyryl fentanyl (3%), and 1% each for fluoro-fentanyl, para-fluorobutyryl, and acryl fentanyl. Some cases had more than one analog, and 38 had both fentanyl and at least one analog. Fentanyl (excluding fentanyl patches) was identified in 81 (10%) of items seized by law enforcement and tested by the State lab in 2015, rising to 149 (21%). In 2016, NFLIS reports that 178 (16%) of items tested in 2016 were fentanyl, ranking first among narcotic analgesics; this contrasts with the national NFLIS statistics, where fentanyl items constitute 2% of items tested, ranking second behind oxycodone.

Pharmaceutical opioid-induced deaths totaled 111 (41% of drug overdoses) in 2015, rising to 123 (33%) in 2016, including those cases with known pharmaceutical-sourced fentanyl. Among the pharmaceutical opioid deaths, the most frequent remain from oxycodone, 46 (12%), and methadone, 41 (11%).

The WONDER data adapted for NDEWS, which extended from 2010 to 2014, differ from the data reported here in several ways. First, the medical examiner-based data include all “occurrent” deaths, that is, those deaths that occur in the state, whether or not the decedent was a resident; the WONDER data include all “resident” deaths only. Second, the medical examiner data as reported in this profile expand on the literal death certificate methodologically. In this analysis, pharmaceutical is segregated from nonpharmaceutical drugs, which affected the subtotals for fentanyl and heroin. For example, in cases where the literal cause of death is “heroin/morphine,” known pharmaceutical morphine has been segregated out and scene investigation data have been used to allow a presumption of heroin. In addition, although Maine medical examiners infrequently use the terms “polydrug” or “multiple drug” toxicity as a cause, without mentioning a specific drug, toxicology and autopsy data have been used here to specify the presumptive drugs involved. Thus, the data in this profile extend the literal death certificate data methodologically to enable a finer grained report of drug abuse trends.

The percentage of pharmaceutical opioid-positive urinalyses among impaired drivers declined substantially in 2015 for the first time since 2009, but then rose again in 2016 to 2009-2014 levels, 223 (59%). Heroin/morphine, by contrast, continued a steady increase, rising from 8% in 2009 to 80 (26%) in 2015, dropping to 81 (21%) in 2016.

The percentage of primary treatment admissions for pharmaceutical opioids rose every year for more than a decade to a peak of 38% in 2012, and subsequently declined to 30% in 2014, 26% in 2015, and 23% in 2016. During this same time, heroin admissions rose to 16% in 2013, 23% in 2014, and 27% in 2015, rising still further to 28% in 2016. Among the admissions, 48% are male. The most common route of administration for admissions with a primary problem of pharmaceutical opioids was inhalation (41% in 2016); 18% were injecting, which was the same percentage as in 2014 and 2015. Analysis of the age structure for opioid treatment admissions demonstrates that the 18–25-year-old cohort has declined slightly from 22% in 2013 to 14% in 2015 and 15% in 2016. Heroin/morphine is the most common secondary problem among those reporting primary prescription opioids, at 19%; marijuana is a close second at 18%.

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## Infectious Diseases Related to Substance Use

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There were 56 new HIV infections reported in 2016, which was a 17% increase from 48 in 2015. This represents an incidence of 4.2 per 100,000 for 2016. Males represented 62.5% of newly infected individuals. The 35–44 age group (sexes combined) represented the largest age group at 37.5% of new cases, followed by the 25–34 age group with 26.8% of new cases.

There were 53 new Hepatitis B infections in 2016, up 489% from the 9 cases reported in 2015. Sixty-two percent of newly infected individuals reported a history of drug use.<sup>4</sup> Nineteen percent of newly infected individuals reported having more than one sexual partner, and 45% were also infected with Hepatitis C. The 2016 incidence of new Hepatitis B infections was 4.0 per 100,000 residents. There were an estimated 157 cases of probable and confirmed chronic Hepatitis B in 2016, a prevalence of 11.8 per 100,000.

Since 2013, when 9 cases of Hepatitis C were reported, there has been a sharp rise in new infections. Thirty-one cases were reported in 2014, 30 in 2015, and 37 in 2016. The 2016 incidence of new Hepatitis C infections in Maine was 2.8 cases per 100,000. Individuals in the 25–34 age group made up 45% of the new infections. Data on the number of newly infected individuals who had used intravenous drugs in the 6-month period prior to diagnosis were unavailable for 2016; nevertheless, 67% of cases in 2015 did report intravenous drug use within the 6 months prior to diagnosis. There were 1,584 cases of newly reported chronic Hepatitis C in 2016, compared with 1,487 in 2015. The 2016 prevalence of chronic Hepatitis C was 119.0 cases per 100,000. Data on the number of chronic Hepatitis C infections attributable to intravenous drug use is unavailable.

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## Legislative and Policy Updates

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- It is now mandatory for prescribers to check Maine’s Prescription Monitoring Program, both at the time of prescribing and every 90 days after for continuing patients. All opioid prescriptions must now be sent to pharmacies electronically.
- A new law limits the prescribing of opioids to 100 morphine milligram equivalents per day. Patients with acute pain are allowed a maximum of 7 days of medication, while patients with chronic pain are allowed no more than a 30-day supply.
- Health care professionals can directly or by standing order prescribe naloxone to an individual at risk for an opiate overdose or to family and friends of opioid users.

<sup>4</sup> State statistics combine injection drug use and noninjection drug use.

## Exhibits

**Exhibit 1. Number of Primary Admissions for Key Drugs, CY2011–2016**

	2011	2012	2013	2014	2015	2016
<b>Alcohol</b>	5089	4815	4662	4185	3686	3568
<b>Cocaine/Crack</b>	480	449	448	374	270	317
<b>Heroin/Morphine</b>	1105	1441	2116	2782	2850	2758
<b>Prescription Opioids</b>	4794	4948	4724	3646	2696	2289
<b>Methamphetamine</b>	47	47	44	63	50	77
<b>Marijuana</b>	1251	1182	1123	906	757	603
<b>Benzodiazepines</b>	99	81	82	58	60	69
<b>Synthetic Stimulants</b>	61	72	66	56	78	64
<b>Other</b>	95	151	153	146	74	36
<b>Total Admissions</b>	<b>13021</b>	<b>13186</b>	<b>13418</b>	<b>12216</b>	<b>10521</b>	<b>9781</b>

Source: Maine Center for Disease Control.

**Exhibit 2. Number of Deaths Caused by Key Drug Categories, CY2010–2016**

	2010	2011	2012	2013	2014	2015	2016
<b>Cocaine</b>	10	13	13	10	24	35	60
<b>Non-Pharmaceutical Fentanyl and/or Analogs*</b>	3	10	0	2	38	86	197
<b>Heroin/Morphine</b>	7	7	28	34	57	107	119
<b>Pharmaceutical Opioids</b>	124	108	96	107	104	111	123
<b>Benzodiazepines</b>	57	39	33	63	70	79	105
<b>Methamphetamine</b>	0	0	1	0	1	3	7
<b>Total</b>	<b>167</b>	<b>155</b>	<b>163</b>	<b>176</b>	<b>208</b>	<b>272</b>	<b>376</b>

\*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 Drug Enforcement Agency for Key Drug Categories, CY2010–2016**

	2010	2011	2012	2013	2014	2015	2016
<b>Cocaine/Crack</b>	189	172	89	116	113	151	106
<b>Heroin</b>	40	58	63	103	219	265	292
<b>Methamphetamine</b>	30	23	32	51	63	85	111
<b>Marijuana</b>	197	69	96	33	38	29	7
<b>Pharmaceutical Narcotic</b>	327	236	222	226	163	147	105
<b>Benzodiazepines</b>	16	17	8	33	8	4	1
<b>Total Arrests</b>	<b>859</b>	<b>605</b>	<b>562</b>	<b>603</b>	<b>669</b>	<b>677</b>	<b>641</b>

Source: Maine Drug Enforcement Agency.

**Exhibit 4. Percentage of Items Seized by Law Enforcement Statewide Testing for Key Drug Categories Identified by the Maine State Health and Environmental Testing Laboratory, CY2010–2016**

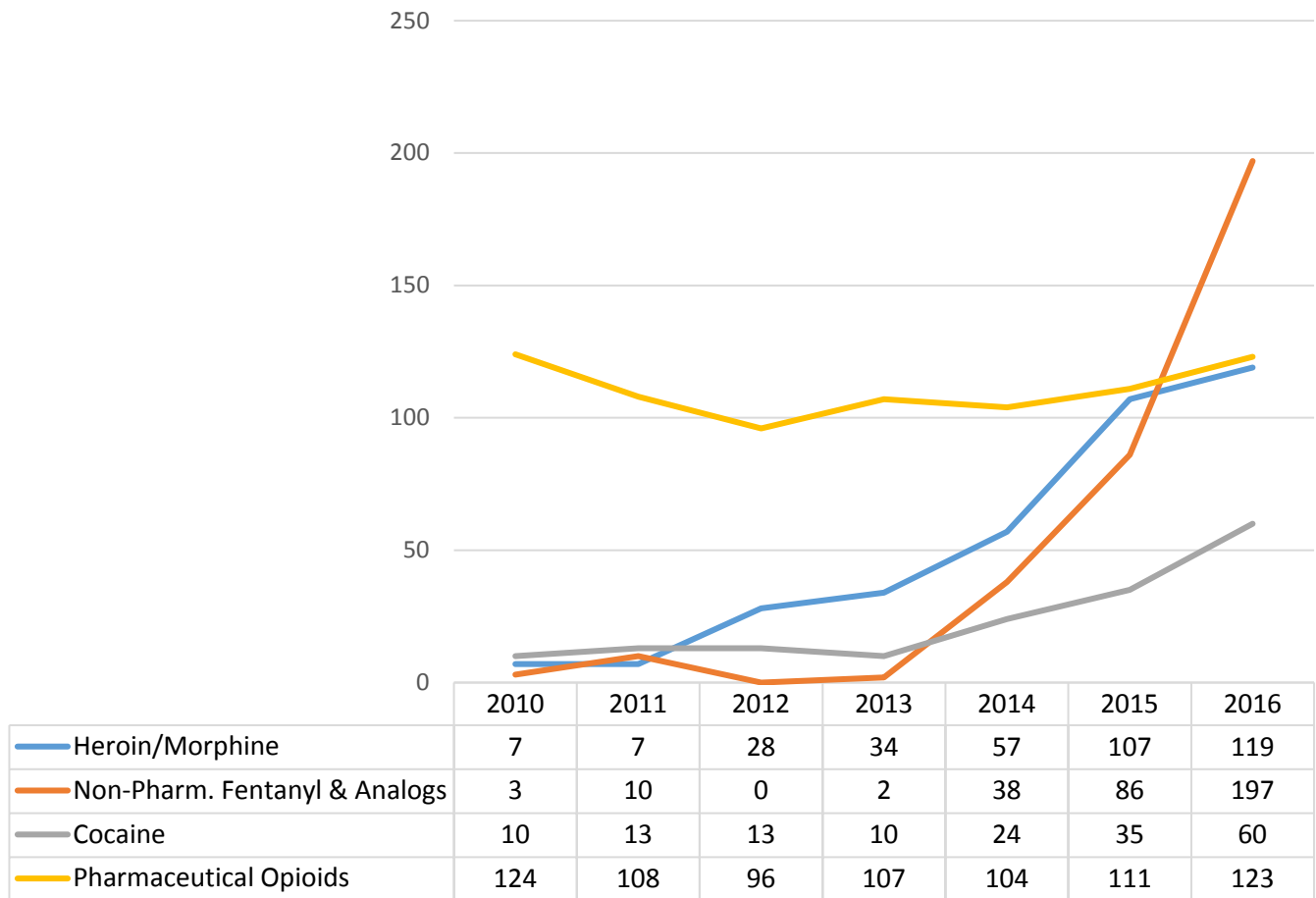
	2010 (n = 811)	2011 (n = 995)	2012 (n = 999)	2013 (n = 1,128)	2014 (n = 974)	2015 (n = 826)	2016 (n = 725**)
<b>Cocaine</b>	40.6	30.7	23.1	25.1	20.8	25.8	24.4
<b>Heroin</b>	10.1	12.2	13.4	28.0	27.8	42.4	37.1
<b>Nonpharmaceutical Fentanyl (excludes analogs)</b>	0.0	0.0	0.0	0.0	3.0	9.8	20.6
<b>Pharmaceutical Opiates*</b>	20.0	26.3	25.6	21.7	21.8	10.3	8.4
<b>Acetyl Fentanyl</b>	0.0	0.0	0.0	0.0	0.0	5.1	3.0
<b>Furanyl Fentanyl</b>	0.0	0.0	0.0	0.0	0.0	0.0	1.2
<b>Marijuana</b>	10.1	11.0	8.0	4.6	3.6	2.3	2.6
<b>Benzodiazepines</b>	3.6	3.3	3.2	2.7	4.9	0.0	1.9
<b>Cathinones</b>	2.2	6.3	10.8	6.0	6.5	4.8	1.1
<b>Synthetic Cannabinoids</b>	0.0	0.0	.01	.01	0.0	0.0	0.3
<b>MDMA/MDA</b>	4.1	1.9	.01	.01	.01	0.0	0.6
<b>Methamphetamine</b>	4.4	2.6	3.5	4.2	6.5	5.9	7.9

Source: Maine Health and Environmental Testing Laboratory.

\*Includes fentanyl patches, but not fentanyl powder or residue.

\*\*Includes items received in 2016 and tested in 2016; data for 2016 items tested in 2017 are not yet available.

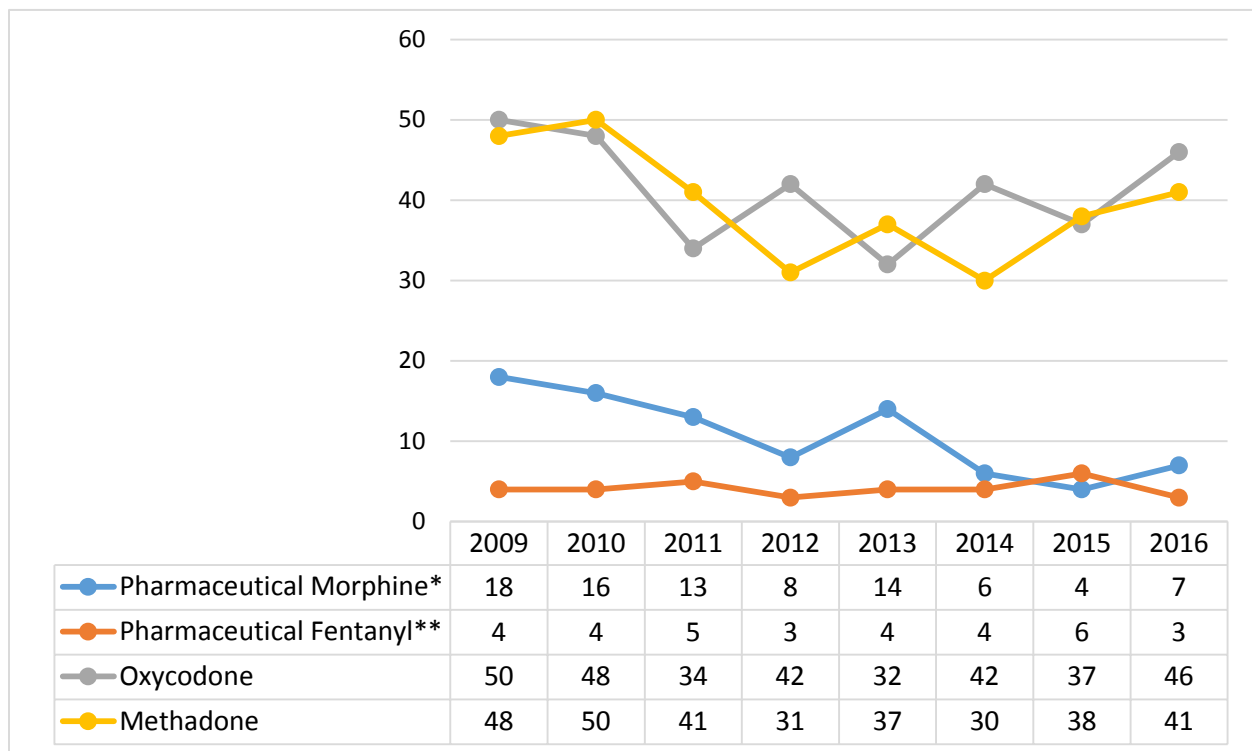
**Exhibit 5. Number of Deaths from Key Illicit Drugs Compared to Pharmaceutical Opioids, CY2010–2016\***



\*Deaths from known pharmaceutical morphine and fentanyl have been removed from the totals for heroin/morphine and nonpharmaceutical fentanyl.

Source: Maine Office of Chief Medical Examiner.

**Exhibit 6. Number of Deaths From Key Pharmaceutical Opioids Alone or in Combination With Other Drugs, CY2009–2016**

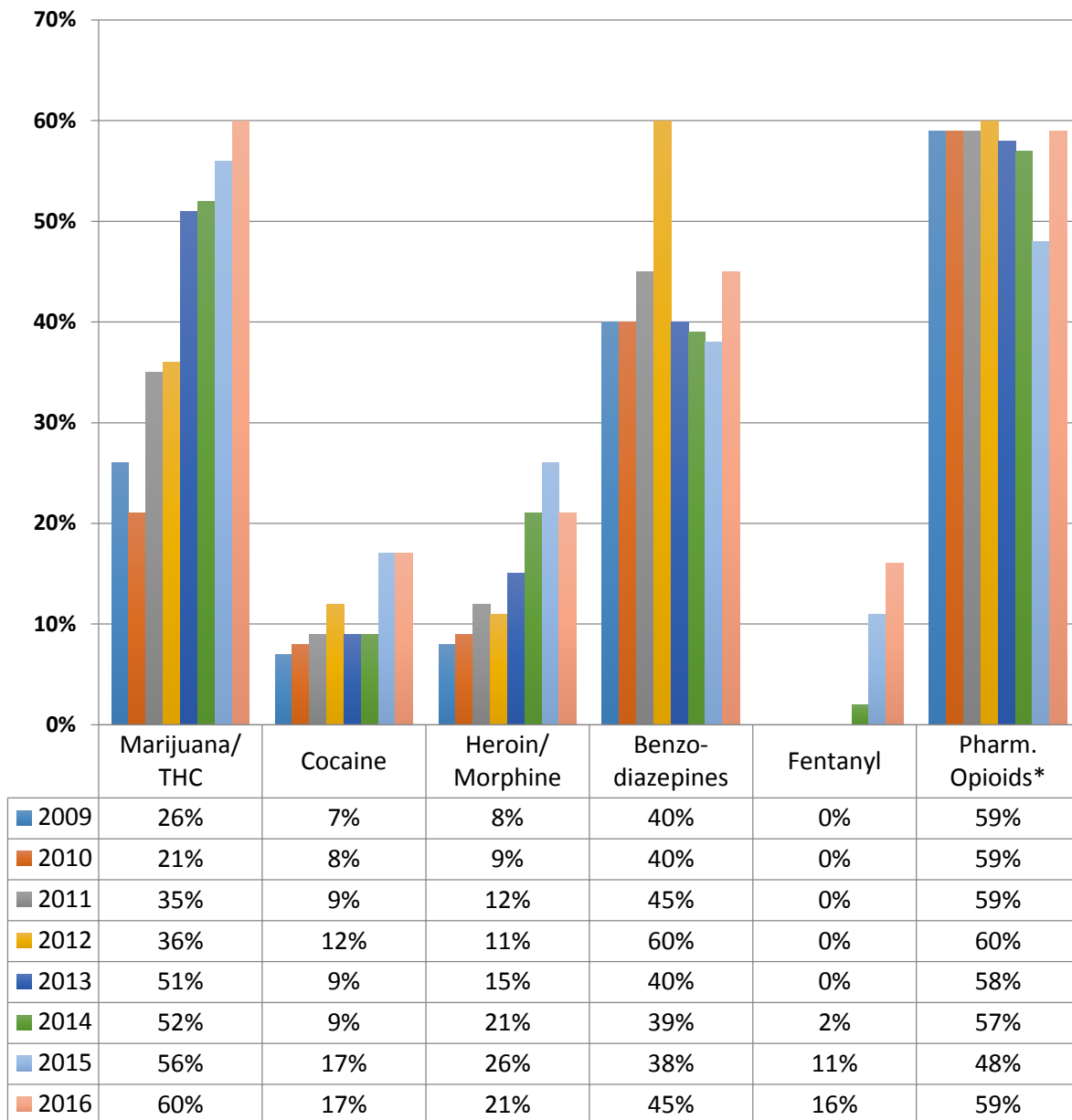


\*Includes only those deaths where a known prescription or obvious pharmaceutical product could be verified.

\*\*Fentanyl patches or known prescription sources were included.

Source: Maine Office of Chief Medical Examiner.

**Exhibit 7. Percentage of Urine Screening Tests of Impaired Drivers Testing Positive for Key Drugs, CY2009–2016**

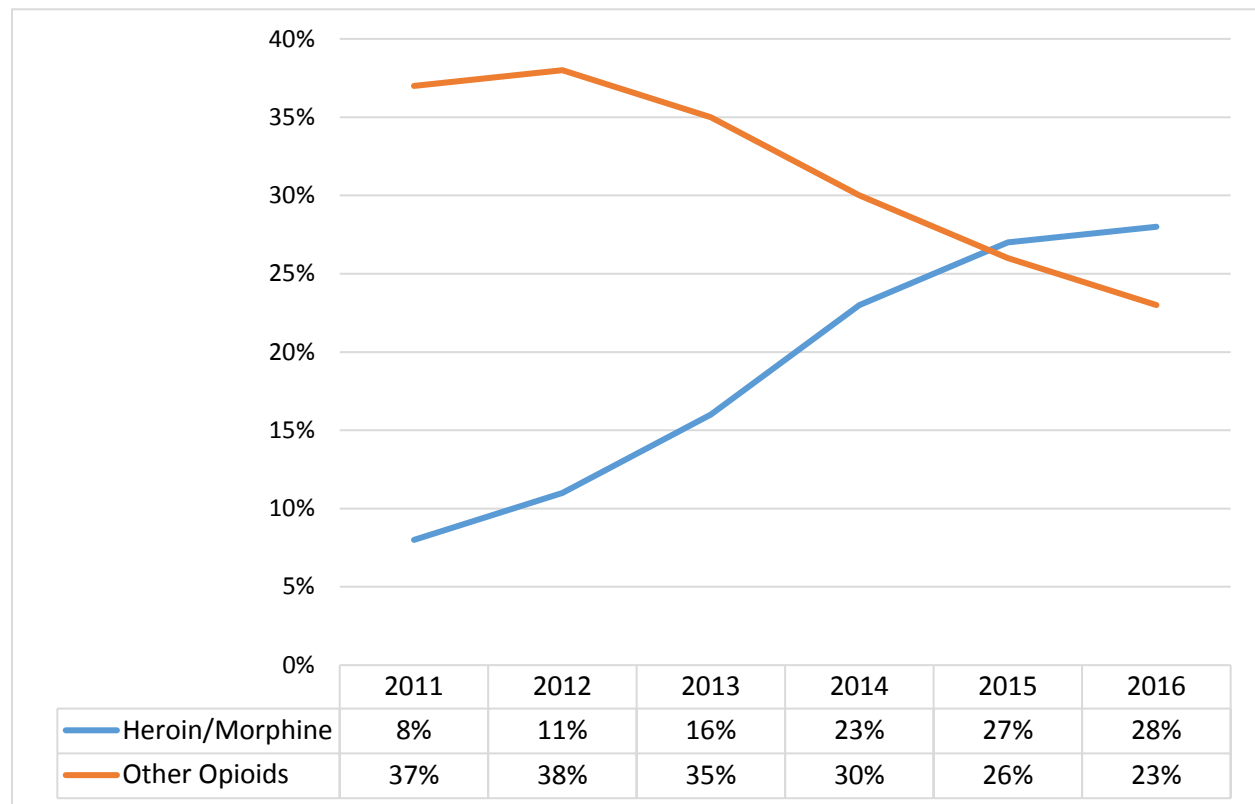


Source: Maine State Health and Environmental Testing Laboratory.

\*Excludes fentanyl.

\*\*Note that individual specimens usually include multiple drugs.

**Exhibit 8. Percentage of Primary Treatment Admissions for Heroin/Morphine and for Pharmaceutical Opiates, CY2011–2016**



Source: Maine Center for Disease Control.

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## Data Sources

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Data for this report were drawn from the following sources:

**Treatment admissions data** were provided by the Maine Center for Disease Control and include all admissions to programs receiving state funding. This report includes all 2016 treatment admissions, including admissions for methadone clinics, and makes comparisons with prior calendar years. Totals include alcohol admissions (Exhibits 1 and 8).

**Mortality data** were generated by analysis of State of Maine Office of Chief Medical Examiner case files for all drug-induced cases through December 2016. 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 2016 (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 2016 (Exhibit 4).

**Forensic laboratory data on urinalyses of drug-impaired drivers** were provided by the Maine State Health and Environmental Testing Laboratory, which tests urine samples of drivers suspected of driving under the influence of drugs. Data were provided for 2016 (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 2016.

*Contact Information: For additional information about the drugs and drug 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](mailto:mhsorg@maine.edu).*

# National Drug Early Warning System (NDEWS) Sentinel Community Site (SCS) Drug Use Patterns and Trends: SCS Data Tables

The *SCS Data Tables* are prepared by NDEWS Coordinating Center staff and include information on demographic and socioeconomic characteristics of the population, drug use, substance use disorders and treatment, drug poisoning deaths, and drug seizures for the Sentinel Community Site. The *SCS Data Tables* attempt to harmonize data available for each of the 12 sites by presenting standardized information from local treatment admissions and five national data sources:

- ◇ American Community Survey;
- ◇ National Survey on Drug Use and Health;
- ◇ Youth Risk Behavior Survey;
- ◇ SCE-provided local treatment admissions data;
- ◇ National Vital Statistics System mortality data queried from CDC WONDER; and
- ◇ National Forensic Laboratory Information System.

The *SCS Data Tables* for each of the 12 Sentinel Community Sites and detailed information about NDEWS can be found on the NDEWS website at [www.ndews.org](http://www.ndews.org).

**Table 1: Demographic and Socioeconomic Characteristics***State of Maine*

2011–2015 ACS 5-Year Estimates

	Estimate	Margin of Error
<b>Total Population (#)</b>	<b>1,329,100</b>	<b>**</b>
<b>Age</b>		
18 years and over (%)	80.3%	+/-0.1
21 years and over (%)	76.3%	+/-0.1
65 years and over (%)	17.6%	+/-0.1
Median Age (years)	43.8	+/-0.1
<b>Race (%)</b>		
White, Not Hisp.	93.9%	+/-0.1
Black/African American, Not Hisp.	1.1%	+/-0.1
Hispanic/Latino (of any race)	1.5%	**
American Indian/Alaska Native, Not Hisp.	0.6%	+/-0.1
Asian, Not Hisp.	1.1%	+/-0.1
Native Hawaiian/Pacific Islander, Not Hisp.	0.0%	+/-0.1
Some Other Race	0.1%	+/-0.1
Two or More Races	1.8%	+/-0.1
<b>Sex (%)</b>		
Male	48.9%	+/-0.1
Female	51.1%	+/-0.1
<b>Educational Attainment (Among Population Aged 25+ Years) (%)</b>		
High School Graduate or Higher	91.6%	+/-0.2
Bachelor's Degree or Higher	29.0%	+/-0.4
<b>Unemployment (Among Civilian Labor Force Population Aged 16+ Years) (%)</b>		
Unemployment Rate	6.8%	+/-0.3
<b>Income (\$)</b>		
Median Household Income (in 2015 inflation-adjusted dollars)	\$49,331	+/-512
<b>Health Insurance Coverage (Among Civilian Noninstitutionalized Population) (%)</b>		
No Health Insurance Coverage	10.0%	+/-0.2
<b>Poverty (%)</b>		
All People Whose Income in Past 12 Months Is Below Poverty Level	13.9%	+/-0.3

**NOTES:**

**Margin of Error:** Can be interpreted roughly as providing a 90% probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value.

\*\*The estimate is controlled; a statistical test for sampling variability is not appropriate.

**SOURCE:** Adapted by the NDEWS Coordinating Center from data provided by the U.S. Census Bureau, 2011–2015 American Community Survey (ACS) 5-Year Estimates.



**Table 2a: Self-Reported Substance Use Behaviors  
Among Persons 12+ Years in *Maine*, 2012–2014**  
Estimated Percent, 95% Confidence Interval, and Estimated Number\*  
Annual Averages Based on Combined 2012 to 2014 NSDUH Data

Substance Use Behaviors	Maine	
	Estimated % (95% CI)*	Estimated #*
<b>Used in Past Month</b>		
Alcohol	57.01 (54.33 – 59.66)	656,811
Binge Alcohol**	21.79 (19.91 – 23.79)	250,984
Marijuana	11.72 (10.22 – 13.41)	135,034
Use of Illicit Drug Other Than Marijuana	2.88 (2.29 – 3.62)	33,169
<b>Used in Past Year</b>		
Cocaine	1.55 (1.15 – 2.09)	17,896
Nonmedical Use of Pain Relievers	3.59 (2.94 – 4.36)	41,299
<b>Substance Use Disorders in Past Year***</b>		
<b>Illicit Drugs or Alcohol</b>	<b>8.13 (7.15 – 9.24)</b>	<b>93,655</b>
Alcohol	5.96 (5.09 – 6.97)	68,694
Illicit Drugs	2.68 (2.20 – 3.26)	30,871

**NOTES:**

**\*Estimated %:** Substate estimates are based on a small area estimation methodology in which 2012–2014 substate level NSDUH data are combined with county and census block group/tract-level data from the state; **95% Confidence Interval (CI):** Provides a measure of the accuracy of the estimate. It defines the range within which the true value can be expected to fall 95 percent of the time; **Estimated #:** The estimated number of persons aged 12 or older who used the specified drug or are dependent/abuse a substance was calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (1,151,999) from Table C1 of the NSDUH report. The population estimate is the simple average of the 2012, 2013, and 2014 population counts for persons aged 12 or older.

**\*\*Binge Alcohol:** Defined as drinking 5 or more drinks on the same occasion on at least 1 day in the past 30 days.

**\*\*\*Substance Use Disorders in Past Year:** Persons are classified as having a substance use disorder in the past 12 months based on responses to questions that meet the criteria specified in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*.

**SOURCE:** Adapted by the NDEWS Coordinating Center from data provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Substate Estimates of Substance Use and Mental Illness from the 2012–2014 National Surveys on Drug Use and Health. Available at:  
<http://www.samhsa.gov/data/population-data-nsduh/reports?tab=38>

**Table 2b: Self-Reported Substance Use Behaviors Among Persons in *Maine*, by Age Group, 2012–2014**  
 Estimated Percent and 95% Confidence Interval (CI)\*, Annual Averages Based on Combined 2012 to 2014 NSDUH Data

Substance Use Behaviors	Maine					
	12–17		18–25		26+	
	Estimated Percent (95% CI)*		Estimated Percent (95% CI)*		Estimated Percent (95% CI)*	
Used in Past Month						
Binge Alcohol**	7.20	(5.95 – 8.67)	42.88	(39.87 – 45.95)	20.34	(18.17 – 22.69)
Marijuana	9.75	(8.21 – 11.55)	27.16	(24.38 – 30.14)	9.77	(8.11 – 11.72)
Use of Illicit Drug Other Than Marijuana	2.77	(2.02 – 3.79)	7.63	(6.25 – 9.29)	2.23	(1.62 – 3.06)
Used in Past Year						
Cocaine	0.59	(0.35 – 0.98)	5.11	(3.92 – 6.63)	1.16	(0.75 – 1.77)
Nonmedical Use of Pain Relievers	4.18	(3.22 – 5.40)	8.29	(6.88 – 9.94)	2.87	(2.21 – 3.71)
Substance Use Disorder in Past Year***						
Illicit Drugs or Alcohol	5.07	(4.03 – 6.36)	18.88	(16.61 – 21.39)	6.94	(5.85 – 8.21)
Alcohol	3.00	(2.31 – 3.89)	13.63	(11.65 – 15.89)	5.19	(4.25 – 6.33)
Illicit Drugs	3.35	(2.52 – 4.44)	8.65	(7.09 – 10.50)	1.78	(1.31 – 2.41)

**NOTES:**

\***Estimated %:** Substate estimates are based on a small area estimation methodology in which 2012–2014 substate level NSDUH data are combined with county and census block group/tract-level data from the state; **95% Confidence Interval (CI):** Provides a measure of the accuracy of the estimate. It defines the range within which the true value can be expected to fall 95 percent of the time.

\*\***Binge Alcohol:** Defined as drinking 5 or more drinks on the same occasion on at least 1 day in the past 30 days.

\*\*\***Substance Use Disorders in Past Year:** Persons are classified as having a substance use disorder in the past 12 months based on responses to questions that meet the criteria specified in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*.

**SOURCE:** Adapted by the NDEWS Coordinating Center from data provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Substate Estimates of Substance Use and Mental Illness from the 2012–2014 National Surveys on Drug Use and Health. Available at: <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=38>

**Table 3: Self-Reported Substance Use-Related Behaviors Among *Maine*<sup>^</sup> Public High-School Students, 2015**  
**Estimated Percent and 95% Confidence Interval (CI)**  
**2013 and 2015 YRBS\***

Substance Use Behaviors	2015 vs 2013			2015 by Sex			2015 by Race			
	2015 Estimate (95% CI)	2013 Estimate (95% CI)	<i>p</i> value	Male Estimate (95% CI)	Female Estimate (95% CI)	<i>p</i> value	White Estimate (95% CI)	Black Estimate (95% CI)	Hispanic Estimate (95% CI)	Asian Estimate (95% CI)
<b>Used in Past Month</b>										
Alcohol	24.0 (22.6 - 25.4)	26.6 (24.8 - 28.5)	<b>0.02</b>	22.3 (20.9 - 23.7)	25.7 (23.8 - 27.6)	<b>0.00</b>	24.3 (22.8 - 25.8)	19.3 (13.2 - 27.4)	29.6 (23.7 - 36.2)	11.6 (7.3 - 17.9)
Binge Alcohol**	11.7 (10.8 - 12.7)	14.4 (13.2 - 15.8)	<b>0.00</b>	12.1 (11.2 - 13.2)	11.1 (9.7 - 12.6)	0.20	11.5 (10.6 - 12.6)	12.2 (7.2 - 20.1)	18.4 (13.4 - 24.6)	6.3 (3.1 - 12.3)
Marijuana	19.9 (18.7 - 21.1)	21.3 (19.5 - 23.2)	0.18	20.2 (18.7 - 21.7)	19.4 (17.9 - 21.0)	0.40	19.8 (18.6 - 21.1)	19.4 (10.9 - 32.3)	25.6 (21.2 - 30.5)	8.9 (5.3 - 14.5)
<b>Ever Used in Lifetime</b>										
Alcohol	53.2 (51.2 - 55.1)	56.6 (54.5 - 58.7)	<b>0.02</b>	50.1 (48.1 - 52.2)	56.2 (53.9 - 58.5)	<b>0.00</b>	53.6 (51.5 - 55.7)	42.3 (31.0 - 54.5)	57.0 (51.5 - 62.4)	47.6 (41.1 - 54.1)
Marijuana	34.7 (33.1 - 36.3)	—	~	33.5 (31.4 - 35.7)	35.6 (33.7 - 37.5)	0.09	34.7 (33.0 - 36.4)	33.2 (18.0 - 53.0)	42.1 (37.3 - 47.0)	16.6 (11.1 - 24.2)
Cocaine	—	—	~	—	—	~	—	—	—	—
Hallucinogenic Drugs	—	—	~	—	—	~	—	—	—	—
Synthetic Marijuana	—	—	~	—	—	~	—	—	—	—
Inhalants	7.8 (7.1 - 8.5)	9.1 (8.3 - 10.1)	<b>0.02</b>	8.1 (7.1 - 9.2)	7.1 (6.4 - 7.8)	0.12	7.0 (6.4 - 7.7)	12.0 (7.0 - 19.6)	18.3 (13.5 - 24.3)	6.9 (4.0 - 11.6)
Ecstasy also called "MDMA"	—	—	~	—	—	~	—	—	—	—
Heroin	—	—	~	—	—	~	—	—	—	—
Methamphetamine	—	—	~	—	—	~	—	—	—	—
Rx Drugs without a Doctor's Prescription	10.8 (10.0 - 11.7)	12.4 (11.6 - 13.3)	<b>0.01</b>	11.8 (10.5 - 13.2)	9.4 (8.4 - 10.5)	<b>0.01</b>	10.4 (9.6 - 11.3)	14.5 (8.7 - 23.2)	21.5 (16.9 - 26.9)	8.3 (6.1 - 11.2)
Injected Any Illegal Drug	—	2.4 (2.0 - 2.8)	~	—	—	~	—	—	—	—

**NOTES:**

<sup>^</sup>**Maine:** Weighted data were available for Maine in 2013 and 2015; weighted results mean that the overall response rate was at least 60%. The overall response rate is calculated by multiplying the school response rate times the student response rate. Weighted results are representative of all students in grades 9–12 attending public schools in each jurisdiction.

‘—’: Data not available; ~: *p* value not available.

**\*Sample Frame for the 2013 and 2015 YRBS:** Consisted of public schools with students in at least one of grades 9-12. The sample size for 2013 was 9,017 with an overall response rate of 64%; the 2015 sample size was 9,605 with a 66% overall response rate.

**\*\*Binge Alcohol:** Defined as having had five or more drinks of alcohol in a row within a couple of hours on at least 1 day during the 30 days before the survey.

**SOURCE:** Adapted by the NDEWS Coordinating Center from data provided by the Centers for Disease Control and Prevention (CDC), 1991-2015 High School Youth Risk Behavior Survey Data. Available at <http://nccd.cdc.gov/youthonline/>. Accessed on [7/1/2016].

**Table 4a: Trends in Admissions\* to Programs Treating Substance Use Disorders, Maine, 2012-2016**

Number of Admissions and Percentage of Admissions with Selected Substances

Cited as Primary Substance of Abuse at Admission, by Year and Substance

	Calendar Year									
	2012		2013		2014		2015		2016	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
<b>Total Admissions (#)</b>	<b>13,186</b>	<b>100%</b>	<b>13,418</b>	<b>100%</b>	<b>12,216</b>	<b>100%</b>	<b>10,521</b>	<b>100%</b>	<b>9,781</b>	<b>100%</b>
<b>Primary Substance of Abuse (%)</b>										
Alcohol	4,815	36.5%	4,662	34.7%	4,185	34.3%	3,686	35.0%	3,568	36.5%
Cocaine/Crack	449	3.4%	448	3.3%	374	3.1%	270	2.6%	317	3.2%
Heroin	1,441	10.9%	2,116	15.8%	2,782	22.8%	2,850	27.1%	2,758	28.2%
Prescription Opioids	4,948	37.5%	4,724	35.2%	3,646	29.8%	2,696	25.6%	2,289	23.4%
Methamphetamine	47	0.4%	44	0.3%	63	0.5%	50	0.5%	77	0.8%
Marijuana	1,182	9.0%	1,123	8.4%	906	7.4%	757	7.2%	603	6.2%
Benzodiazepines	81	0.6%	82	0.6%	58	0.5%	60	0.6%	69	0.7%
MDMA	unavail/sup	unavail/sup	12	0.1%	unavail/sup	unavail/sup	12	0.1%	unavail/sup	unavail/sup
Synthetic Stimulants	72	0.5%	66	0.5%	56	0.5%	78	0.7%	64	0.7%
Synthetic Cannabinoids	unavail/sup	unavail/sup	11	0.1%	10	0.1%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Other Drugs/Unknown	151	1.1%	130	1.0%	136	1.1%	62	0.6%	36	0.4%

**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.

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

**Table 4b: Demographic and Drug Use Characteristics of Primary Treatment Admissions\* for Select Substances of Abuse, Maine, 2016**  
Number of Admissions, by Primary Substance of Abuse and Percentage of Admissions with Selected Demographic and Drug Use Characteristics

	Primary Substance of Abuse																	
	Alcohol		Cocaine/Crack		Heroin/Morphine		Prescription Opioids		Methamphetamines		Marijuana		Benzo-diazepines		Synthetic Stimulants		Synthetic Cannabinoids	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
<b>Number of Admissions (#)</b>	3,568	100%	317	100%	2,758	100%	2,289	100%	77	100%	603	100%	69	100%	unavail/sup		unavail/sup	
<b>Sex (%)</b>																		
Male	2,346	65.8%	163	51.4%	1,480	53.7%	1,098	48.0%	39	50.6%	417	69.2%	29	42.0%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Female	1,222	34.2%	154	48.6%	1,278	46.3%	1,191	52.0%	38	49.4%	186	30.8%	40	58.0%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
<b>Race/Ethnicity (%)</b>																		
White, Non-Hisp.	3,362	94.2%	290	91.5%	2,634	95.5%	2,182	95.3%	71	92.2%	539	89.4%	67	97.1%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
African-Am/Black, Non-Hisp	76	2.1%	17	5.4%	27	1.0%	16	0.7%	unavail/sup	unavail/sup	35	5.8%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Hispanic/Latino**	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail/sup	unavail/sup	unavail/sup	unavail/sup
American Indian or Alaska Native	66	1.8%	unavail/sup	unavail/sup	43	1.6%	47	2.1%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Asian	12	0.3%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Unknown	13	0.4%	unavail/sup	unavail/sup	19	0.7%	22	1.0%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Other	35	1.0%	unavail/sup	unavail/sup	29	1.1%	13	0.6%	unavail/sup	unavail/sup	17	2.8%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
<b>Age Group (%)</b>																		
Under 18	75	2.1%	unavail/sup	unavail/sup	12	0.4%	10	0.4%	unavail/sup	unavail/sup	242	40.1%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
18-25	520	14.6%	44	13.9%	584	21.2%	338	14.8%	19	24.7%	149	24.7%	14	20.3%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
26-44	1,686	47.3%	199	62.8%	1,884	68.3%	1,584	69.2%	47	61.0%	167	27.7%	46	66.7%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
45+	1,287	36.1%	69	21.8%	278	10.1%	357	15.6%	11	14.3%	44	7.3%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
<b>Route of Administration (%)</b>																		
Smoked	unavail/sup	unavail/sup	192	60.6%	71	2.6%	88	3.8%	37	48.1%	587	97.3%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Inhaled	unavail/sup	unavail/sup	79	24.9%	721	26.1%	943	41.2%	12	15.6%	unavail/sup	unavail/sup	18	26.1%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Injected	unavail/sup	unavail/sup	42	13.2%	1,891	68.6%	403	17.6%	24	31.2%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Oral/Other/Unknown	3,563	99.9%	unavail/sup	unavail/sup	75	2.7%	855	37.4%	unavail/sup	unavail/sup	10	1.7%	48	69.6%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
<b>Secondary Substance (%)</b>																		
None	2,114	59.2%	57	18.0%	491	17.8%	525	22.9%	11	14.3%	205	34.0%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Alcohol	n/a	n/a	70	22.1%	235	8.5%	222	9.7%	10	13.0%	279	46.3%	10	14.5%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Cocaine/Crack	102	2.9%	n/a	n/a	535	19.4%	176	7.7%	unavail/sup	unavail/sup	17	2.8%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Heroin/Morphine	107	3.0%	72	22.7%	n/a	n/a	437	19.1%	unavail/sup	unavail/sup	30	5.0%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Prescription Opioids	154	4.3%	55	17.4%	901	32.7%	264	11.5%	16	20.8%	30	5.0%	19	27.5%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Methamphetamines	12	0.3%	0	0.0%	31	1.1%	30	1.3%	n/a	n/a		0.0%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Marijuana	972	27.2%	36	11.4%	414	15.0%	403	17.6%	20	26.0%	n/a	n/a	18	26.1%	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Benzodiazepines	27	0.8%	10	3.2%	104	3.8%	109	4.8%	unavail/sup	unavail/sup	unavail/sup	unavail/sup	n/a	n/a	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Synthetic Stimulants**	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup
Synthetic Cannabinoids	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup	unavail/sup

**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:** Data not available; **unavail/sup:** Data suppressed for counts <10; **n/a:** Not applicable; **Percentages** may not sum to 100 due to either rounding and/or because not all possible categories are presented in the table (and category frequencies may not add to drug total because not all possible categories are presented in the table).

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

**Table 5: Drug Poisoning Deaths\*, by Drug\*\* and Year, Maine, 2011–2015**  
**Number, Crude Rate, and Age-Adjusted Rate\*\*\* (per 100,000 population)**

	2011			2012			2013			2014			2015		
	Number (#)	Crude Rate	Age-Adjusted Rate	Number (#)	Crude Rate	Age-Adjusted Rate	Number (#)	Crude Rate	Age-Adjusted Rate	Number (#)	Crude Rate	Age-Adjusted Rate	Number (#)	Crude Rate	Age-Adjusted Rate
<b>Drug Poisoning Deaths</b>	<b>156</b>	<b>11.7</b>	<b>11.8</b>	<b>150</b>	<b>11.3</b>	<b>11.5</b>	<b>174</b>	<b>13.1</b>	<b>13.2</b>	<b>216</b>	<b>16.2</b>	<b>16.8</b>	<b>269</b>	<b>20.2</b>	<b>21.2</b>
<b>Opioids†</b>	<b>85</b>	<b>6.4</b>	<b>6.7</b>	<b>100</b>	<b>7.5</b>	<b>7.9</b>	<b>125</b>	<b>9.4</b>	<b>9.9</b>	<b>171</b>	<b>12.9</b>	<b>13.7</b>	<b>238</b>	<b>17.9</b>	<b>19.3</b>
Heroin	SUP	SUP	SUP	12	UNR	UNR	16	UNR	UNR	38	2.9	3.1	52	3.9	4.5
Natural Opioid Analgesics	40	3.0	3.2	61	4.6	4.7	64	4.8	4.9	80	6.0	6.1	102	7.7	7.7
Methadone	32	2.4	2.7	25	1.9	1.9	34	2.6	2.6	29	2.2	2.2	36	2.7	2.8
Synthetic Opioid Analgesics	19	UNR	UNR	15	UNR	UNR	23	1.7	1.8	62	4.7	5.2	116	8.7	9.9
<b>Benzodiazepines</b>	<b>31</b>	<b>2.3</b>	<b>2.4</b>	<b>34</b>	<b>2.6</b>	<b>2.6</b>	<b>56</b>	<b>4.2</b>	<b>4.2</b>	<b>69</b>	<b>5.2</b>	<b>5.5</b>	<b>78</b>	<b>5.9</b>	<b>6.1</b>
Benzodiazepines AND Any Opioids	25	1.9	2.0	27	2.0	2.1	46	3.5	3.4	58	4.4	4.7	69	5.2	5.5
Benzodiazepines AND Heroin	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	10	UNR	UNR	13	UNR	UNR
<b>Psychostimulants</b>															
Cocaine	11	UNR	UNR	SUP	SUP	SUP	SUP	SUP	SUP	23	1.7	1.9	32	2.4	2.8
Psychostimulants with Abuse Potential	SUP	SUP	SUP	10	UNR	UNR	12	UNR	UNR	16	UNR	UNR	21	1.6	1.7
<b>Cannabis (derivatives)</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>	<b>SUP</b>
<b>Percent with Drugs Specified†</b>	<b>82.7%</b>			<b>88.0%</b>			<b>95.4%</b>			<b>99.1%</b>			<b>98.5%</b>		

**NOTES:**

\***Drug Poisoning Deaths:** Drug poisoning deaths are defined as deaths with **underlying cause-of-death** codes from the World Health Organization's (WHO's) *International Classification of Diseases, Tenth Revision* (ICD-10) of X40-X44, X60-X64, X85, and Y10-Y14. See *Overview & Limitations* section for additional information on mortality data and definitions of the specific ICD-10 codes listed.

\*\***Drug Poisoning Deaths, by Drug:** Among the deaths with drug poisoning identified as the underlying cause, the specific drugs are identified by ICD-10 **multiple cause-of-death (MCOD)** T-codes (see below). Each death certificate may contain up to 20 causes of death indicated in the MCOD field. Thus, the total count across drugs may exceed the actual number of dead persons in the selected population. Some deaths involve more than one drug; these deaths are included in the rates for each drug category.

\*\*\***Age-Adjusted Rate:** Age-adjusted rates are weighted averages of the age-specific death rates, where the weights represent a fixed population by age (2000 U.S. Population). Age adjustment is a technique for removing the effects of age from crude rates, so as to allow meaningful comparisons across populations with different underlying age structures. Age-adjusted rates should be viewed as relative indexes rather than as direct or actual measures of mortality risk. See <http://wonder.cdc.gov/wonder/help/mcd.html> for more information.

†**Opioids:** Includes any of these MCOD codes T40.0-T40.4, or T40.6

*Heroin* (T40.1); *Natural Opioid Analgesics* (T40.2) - Including morphine and codeine, and semi-synthetic opioid analgesics, including drugs such as oxycodone, hydrocodone, hydromorphone, and oxymorphone; *Methadone* (T40.3); *Synthetic Opioid Analgesics* (T40.4) - Other than methadone, including drugs such as tramadol and fentanyl; *Other and Unspecified Narcotics* (T40.6)

**Benzodiazepines:** (T42.4)

*Benzodiazepines AND Any Opioids* (T42.4 AND T40.0-T40.4, or T40.6)

*Benzodiazepines AND Heroin* (T42.4 AND T40.1)

**Psychostimulants:**

*Cocaine* (T40.5); *Psychostimulants with Abuse Potential* [excludes cocaine] (T43.6)

**Cannabis** (derivatives): (T40.7)

†**Percent of Drug Poisoning Deaths with Drug(s) Specified:** Among drug poisoning deaths, deaths that mention the type of drug(s) involved are defined as those including at least one ICD-10 MCOD in the range T36-T50.8. See *Overview & Limitations* section for more information about this statistic.

**SUP=Suppressed:** Counts and Rates are suppressed for subnational data representing 0–9 deaths. **UNR=Unreliable:** Rates are Unreliable when the death count <20.

**SOURCE:** Adapted by the NDEWS Coordinating Center from data taken from the Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple cause of death 1999-2015, available on the CDC WONDER Online Database, released December 2016. Data compiled in the Multiple cause of death 1999-2015 were provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved between February 2017 - June 2017, from <http://wonder.cdc.gov/mcd-icd10.html>

**Table 6a: Drug Reports\* for Items Seized by Law Enforcement in Maine in 2016**  
**DEA National Forensic Laboratory Information System (NFLIS)**

Number of Drug-Specific Reports and Percent of Total Analyzed Drug Reports

Drug Identified	Number (#)	Percent of Total Drug Reports* (#)
<b>Total Drug Reports</b>	<b>1,103</b>	<b>100.0%</b>
HEROIN	306	27.7%
COCAINE	216	19.6%
FENTANYL	178	16.1%
METHAMPHETAMINE	65	5.9%
CANNABIS	35	3.2%
OXYCODONE	29	2.6%
CAFFEINE	27	2.4%
6-MONOACETYLMORPHINE	24	2.2%
ACETYLFENTANYL	20	1.8%
BUPRENORPHINE	20	1.8%
PHENYLIMIDOTHIAZOLE ISOMER UNDETERMINED	20	1.8%
HYDROCODONE	13	1.2%
PSEUDOEPHEDRINE	13	1.2%
NALOXONE	12	1.1%
ALPRAZOLAM	8	0.7%
FURANYL FENTANYL	8	0.7%
NO CONTROLLED DRUG IDENTIFIED	7	0.6%
QUININE	7	0.6%
LIDOCAINE	6	0.5%
METHYLPHENIDATE	6	0.5%
PROCAINE	6	0.5%
ALPHA-PYRROLIDINOPENTIOPHENONE (ALPHA-PVP)	5	0.5%
PHENACETIN	5	0.5%
CLONAZEPAM	4	0.4%
TRAMADOL	4	0.4%
METHADONE	3	0.3%
PSILOCIN	3	0.3%
3,4-METHYLENEDIOXYAMPHETAMINE (MDA)	2	0.2%
3,4-METHYLENEDIOXYETHYL CATHINONE (ETHYLONE)	2	0.2%
3,4-METHYLENEDIOXYMETHAMPHETAMINE (MDMA)	2	0.2%
ACETAMINOPHEN	2	0.2%
AMPHETAMINE	2	0.2%
DIBUTYLONE (BETA-KETO-N,N-DIMETHYL-1,3-BENZODIOXOLYL BUTANAMINE; BK-DMBDB)	2	0.2%
GABAPENTIN	2	0.2%
SODIUM BICARBONATE	2	0.2%
TESTOSTERONE	2	0.2%
THEOBROMINE	2	0.2%
3',4'-TETRAMETHYLENE-ALPHA-PYRROLIDINOVALEROPHENONE (TH-PVP)	1	< 0.1%
4-CHLORO-ALPHA-PYRROLIDINOVALEROPHENONE (4-CHLORO-ALPHA-PVP)	1	< 0.1%
4-FLUORO PV8 (1-(4-FLUOROPHENYL)-2-(PYRROLIDIN-1-YL)HEPTAN-1-ONE)	1	< 0.1%
AB-CHMINACA (N-[(1S)-1-(AMINOCARBONYL)-2-METHYLPROPYL]-1-(CYCLOHEXYLMETHYL)-1H-INDAZOLE-3-CARBOXAMIDE)	1	< 0.1%
AB-FUBINACA	1	< 0.1%
ALPHA-PYRROLIDINOBUTIOPHENONE (ALPHA-PBP)	1	< 0.1%
ASPIRIN	1	< 0.1%
CANNABIDIOL	1	< 0.1%
CANNABINOL	1	< 0.1%
CARISOPRODOL	1	< 0.1%
CLENBUTEROL	1	< 0.1%
CLINDAMYCIN	1	< 0.1%
CODEINE	1	< 0.1%
CYCLOBENZAPRINE	1	< 0.1%
DIAZEPAM	1	< 0.1%
DIPHENHYDRAMINE	1	< 0.1%
DIPYRONE	1	< 0.1%
ETIZOLAM	1	< 0.1%

**Table 6a (cont'd): Drug Reports\* for Items Seized by Law Enforcement in Maine in 2016**  
**DEA National Forensic Laboratory Information System (NFLIS)**

<b>Drug Identified</b>	<b>Number (#)</b>	<b>Percent of Total Drug Reports* (#)</b>
HYDROXYZINE	1	< 0.1%
KETAMINE	1	< 0.1%
MELATONIN	1	< 0.1%
METHOCARBAMOL	1	< 0.1%
MORPHINE	1	< 0.1%
PENTYLONE (β-KETO-METHYLBENZODIOXOLYPENTANAMINE)	1	< 0.1%
PERPHENAZINE	1	< 0.1%
PHENYLBUTAZONE	1	< 0.1%
POLYETHYLENE	1	< 0.1%
QUETIAPINE	1	< 0.1%
SILDENAFIL CITRATE (VIAGRA)	1	< 0.1%
STANOZOLOL	1	< 0.1%
SUCROSE	1	< 0.1%
SUGAR	1	< 0.1%
VITAMIN	1	< 0.1%

**NOTES:**

**\*Drug Report:** Drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database. The time frame is January - December 2016.

The NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

**Source:** Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Diversion Control Division, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from the NFLIS Data Query System (DQS) on May 28, 2017.



**Table 6b: Drug Reports\* for Items Seized by Law Enforcement in Maine in 2016**  
**DEA National Forensic Laboratory Information System (NFLIS)**

Drug Reports\* by Selected Drug Categories\*\* of Interest, Number of Drug-Specific Reports,  
Percent of Analyzed Drug Category Reports, & Percent of Total Analyzed Drug Reports

Drug Identified, by Selected Drug Category**	Number (#)	Percent of Drug Category (%)	Percent of Total Reports (%)
<b>Total Drug Reports*</b>	<b>1,103</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Opioids Category</b>	<b>619</b>	<b>100.0%</b>	<b>56.1%</b>
Heroin	306	49.4%	27.7%
<b>Narcotic Analgesics</b>	<b>277</b>	<b>44.7%</b>	<b>25.1%</b>
FENTANYL	178	28.8%	16.1%
OXYCODONE	29	4.7%	2.6%
ACETYLFENTANYL	20	3.2%	1.8%
BUPRENORPHINE	20	3.2%	1.8%
HYDROCODONE	13	2.1%	1.2%
FURANYL FENTANYL	8	1.3%	0.7%
TRAMADOL	4	0.6%	0.4%
METHADONE	3	0.5%	0.3%
CODEINE	1	0.2%	< 0.1%
MORPHINE	1	0.2%	< 0.1%
<b>Narcotics</b>	<b>36</b>	<b>5.8%</b>	<b>3.3%</b>
6-MONOACETYLMORPHINE	24	3.9%	2.2%
NALOXONE	12	1.9%	1.1%
<b>Synthetic Cathinones Category</b>	<b>14</b>	<b>100.0%</b>	<b>1.3%</b>
<b>Synthetic Cathinones</b>	<b>14</b>	<b>100.0%</b>	<b>1.3%</b>
ALPHA-PYRROLIDINOPENTIPHENONE (ALPHA-PVP)	5	35.7%	0.5%
3,4-METHYLENEDIOXYETHYLCATHINONE (ETHYLONE)	2	14.3%	0.2%
DIBUTYLONE (BETA-KETO-N,N-DIMETHYL-1,3-BENZODIOXOLYLBUTANAMINE; BK-DMBDB)	2	14.3%	0.2%
3',4'-TETRAMETHYLENE-ALPHA-PYRROLIDINOVALEROPHENONE (TH-PVP)	1	7.1%	< 0.1%
4-CHLORO-ALPHA-PYRROLIDINOVALEROPHENONE (4-CHLORO-ALPHA-PVP)	1	7.1%	< 0.1%
4-FLUORO PV8 (1-(4-FLUOROPHENYL)-2-(PYRROLIDIN-1-YL)HEPTAN-1-ONE)	1	7.1%	< 0.1%
ALPHA-PYRROLIDINOBUTIPHENONE (ALPHA-PBP)	1	7.1%	< 0.1%
PENTYLONE (8-KETO-METHYLBENZODIOXOLYPENTANAMINE)	1	7.1%	< 0.1%
<b>Synthetic Cannabinoids Category</b>	<b>2</b>	<b>100.0%</b>	<b>0.2%</b>
AB-CHMINACA (N-[(1S)-1-(AMINOCARBONYL)-2-METHYLPROPYL]-1-(CYCLOHEXYLMETHYL)-1H-INDAZOLE-3-CARBOXAMIDE)	1	50.0%	< 0.1%
AB-FUBINACA	1	50.0%	< 0.1%

**NOTES:**

**\*Drug Report:** Drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database. The time frame is January - December 2016.

**\*\*Selected Drug Categories:** Opioids, Synthetic Cannabinoids, Synthetic Cathinones, 2C Phenethylamines, Piperazines, and Tryptamines are drug categories of current interest to the NDEWS Project because of the recent increase in their numbers, types, and availability.

The NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

**Source:** Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Diversion Control Division, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from the NFLIS Data Query System (DQS) on May 28, 2017.

# **National Drug Early Warning System (NDEWS) Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2017: Overview and Limitations About Data Sources**

The *Overview and Limitations About Data Sources*, written by Coordinating Center staff, provides a summary and a detailed description of the limitations of some of the national data sources used this report, including indicators of substance use, treatment, consequences, and availability.

## ***Overview and Limitations of American Community Survey (ACS) Data***

Data on demographic, social, and economic characteristics are based on 2011–2015 American Community Survey (ACS) 5-Year Estimates, collected between January 1, 2011 and December 31, 2015. The U.S. Census Bureau's ACS is a nationwide survey designed to provide communities with reliable and timely demographic, social, economic, and housing data on an annual basis. Although the main function of the decennial census is to provide counts of people for the purpose of congressional apportionment and legislative redistricting, the primary purpose of the ACS is to measure the changing social and economic characteristics of the U.S. population. As a result, the ACS does not provide official counts of the population in between censuses. Instead, the Census Bureau's Population Estimates Program will continue to be the official source for annual population totals, by age, race, Hispanic origin, and sex.<sup>a</sup>

The ACS selects approximately 3.5 million housing unit addresses from every county across the nation to survey. Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error (MOE). The values shown in the table are the margin of errors. The MOE can be interpreted roughly as providing a 90% probability that the interval defined by the estimate minus the MOE and the estimate plus the MOE (the lower and upper confidence bounds) contains the true value.<sup>a</sup>

### ***Sources***

**Data Sources:** Adapted by the NDEWS Coordinating Center from data from the American Community Survey; *2011–2015 American Community Survey 5-Year Estimates*; Tables DP02, DP03, and DP05; using American FactFinder; <http://factfinder.census.gov>; Accessed April 2017; U.S. Census Bureau.

**Overview/Methods/Limitations Sources:** <sup>a</sup>Adapted by the NDEWS Coordinating Center from U.S. Census Bureau, *A Compass for Understanding and Using American Community Survey Data: What General Data Users Need to Know*. U.S. Government Printing Office, Washington, DC, 2008. Available at: <https://www.census.gov/library/publications/2008/acs/general.html>

## ***Overview and Limitations of National Survey of Drug Use and Health (NSDUH) Data***

NSDUH is an annual survey of the civilian, noninstitutionalized population of the United States aged 12 years or older that is planned and managed by the Substance Abuse and Mental Health Administration's (SAMHSA) Center for Behavioral Health Statistics and Quality (CBHSQ). Data is collected from individuals residing in households, noninstitutionalized group quarters (e.g., shelters, rooming houses, dormitories) and civilians living on military bases. In 2012–2014, NSDUH collected data from 204,048 respondents aged 12 years or older; this sample was designed to obtain representative samples from the 50 states and the District of Columbia.<sup>a</sup>

The **substate estimates** are produced from a hierarchical Bayes model-based small area estimation (SAE) procedure in which 2012–2014 NSDUH data at the substate level are combined with local area county and census block group/tract-level data from the area. The goal of this method is to enhance statistical power and analytic capability, and to provide more precise estimates of substance use and mental health outcomes within and across states. [See [2012–2014 NSDUH Methods Report](#) for more information about the methodology used to generate substate estimates]. Comparable estimates derived from the small area estimation procedure were also produced for the 50 states and the District of Columbia. We present these estimates for Maine and Texas. Because these data are based on 3 consecutive years of data, they are not directly comparable with the annually published state estimates that are based on only 2 consecutive years of NSDUH data.<sup>a</sup>

**Substate regions**, also referred to as planning regions or substate areas, were defined by officials from each of the 50 states and the District of Columbia and were typically based on the treatment planning regions specified by the states in their applications for the Substance Abuse Prevention and Treatment Block Grant (SABG) administered by SAMHSA. There has been extensive variation in the size and use of substate regions across states. In some states, the substate regions have been used more for administrative purposes than for planning purposes. The goal of the project was to provide substate-level estimates showing the geographic distribution of substance use prevalence for regions that states would find useful for planning and reporting purposes. The final substate region boundaries were based on the state's recommendations, assuming that the NSDUH sample sizes were large enough to provide estimates with adequate precision. Most states defined regions in terms of counties or groups of counties, while some defined them in terms of census tracts. Estimates for 384 substate regions were generated using the 2012–2014 NSDUH data. Substate regions used for each Sentinel Community Site (SCS) are defined in the Notes sections of Tables 2a and 2b.<sup>a</sup>

### ***Notes about Data Terms***

**Estimated percentages** are based on a survey-weighted hierarchical Bayes estimation approach, and the 95% prediction (credible) intervals are generated by Markov Carlo techniques.

**95% Confidence Interval (CI)** provides a measure of the accuracy of the estimate. It defines the range within which the true value can be expected to fall 95% of the time.

**Estimated #** is the estimated number of persons aged 12 years or older in the civilian, noninstitutionalized population who used the specified drug or are dependent on/abuse a substance; the estimated number of persons using/dependent on a particular drug was calculated by multiplying the prevalence rate and the population estimate from Table C1 of the NSDUH report. The population estimate is the simple average of the 2012, 2013, and 2014 population counts for persons aged 12 years or older.

**Binge Alcohol** is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days.

**Use of Illicit Drug Other Than Marijuana** is defined as any illicit drug other than marijuana and includes cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

**Substance Use Disorder in Past Year:** Persons are classified as having a substance use disorder in the past 12 months based on responses to questions that meet the criteria specified in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

### **Sources**

**Data Sources:** Adapted by the NDEWS Coordinating Center from data provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Substate Estimates of Substance Use and Mental Disorders from the 2012–2014 *National Surveys on Drug Use and Health: Results and Detailed Tables*. Rockville, MD. 2014. Available at: <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=38>; Accessed on August 2016.

**Overview/Methods/Limitations Sources:** <sup>a</sup>Adapted by the NDEWS Coordinating Center from Substance Abuse and Mental Health Services Administration (SAMHSA), 2012–2014 *National Surveys on Drug Use and Health: Guide to Substate Tables and Summary of Small Area Estimation Methodology*. Rockville, MD 2016. Available at: <http://www.samhsa.gov/data/sites/default/files/NSDUHsubstateMethodology2014/NSDUHsubstateMethodology2014.html>; Accessed August 2016.

## ***Overview and Limitations of Youth Risk Behavioral Survey (YRBS) Data***

The Youth Risk Behavior Surveillance System (YRBSS) was established in 1991 by the Centers for Disease Control and Prevention (CDC) to monitor six priority health-risk behaviors that contribute to the leading causes of morbidity and mortality among youth and young adults in the United States.<sup>a</sup> The YRBSS was designed to enable public health professionals, educators, policy makers, and researchers to 1) describe the prevalence of health-risk behaviors among youths, 2) assess trends in health-risk behaviors over time, and 3) evaluate and improve health-related policies and programs.<sup>a</sup> One component of the surveillance system is the biennial school-based Youth Risk Behavior Survey (YRBS). Survey results are based on representative samples of high school students in the nation, States, tribes, and select large urban school district across the country.<sup>a</sup> Weighted survey estimates of alcohol and drug use are presented for the nation and the YRBS state and large urban school district catchment areas that most closely represent each NDEWS SCS.

The national YRBS estimates are representative of all students in grades 9–12 attending **public and private** schools in the 50 states and the District of Columbia. Public schools in the national sample might include charter schools and public alternative, special education, or vocational schools. Private schools in the national sample might include religious and other private schools, but they do not include private alternative, special education, or vocational schools.<sup>a</sup>

The estimates for the NDEWS Sentinel Community Sites (SCS) catchment areas are represented by state and large urban school districts. Only jurisdictions with an overall response rate  $\geq 60\%$  are presented. See Table A for sample size and overall response rate for each SCS. The weighted estimates for state and large urban school districts are representative of all students in grades 9–12 attending **public** schools in each of their respective jurisdictions.<sup>b</sup> State and substate public schools might include charter schools; public alternative, special education, or vocational schools; and schools overseen by the Bureau of Indian Education.<sup>b</sup> In 2015, data were not available for 5 NDEWS sites and YRBS regions did not correspond exactly to the catchment areas of each NDEWS SCS:

- 2015 YRBS survey results were unavailable for the following 5 SCSs: Chicago Metro, Atlanta Metro, Texas, Denver Metro, and King County.
- The Detroit YRBS is used to represent the Wayne County SCS; Detroit does not represent the entire Wayne County catchment area.
- The Southeastern Florida (Miami Area) SCS reporting area includes separate results for each of the 3 counties making up the SCS reporting area.

Thus, results for 9 YRBS reporting areas representing 7 of the 12 NDEWS SCSs are presented in the YRBS Cross-Site Data Presentation. See Figures and Tables for description of the YRBS catchment areas, where available, used to represent each NDEWS SCS. For more information about the YRBSS and 2015 YRBS survey methodology, see [\*Youth Risk Behavior Surveillance—United States, 2015\*](#).

**Table A: Sample Sizes and Overall Response Rates, United States and Selected YRBS Sites, YRBS, 2015**

NDEWS SCS	YRBS Site	Student Sample Size (#)	Overall Response Rate (%)
United States	National Sample	15,624	60%
Maine	Maine	9,605	66%
Los Angeles County	Los Angeles	2,336	81%
New York City	New York City	8,522	70%
Philadelphia	Philadelphia	1,717	68%
San Francisco	San Francisco	2,181	82%
Southeastern Florida (Miami Area)	Broward County	1,413	72%
	Miami-Dade County	2,728	78%
	Palm Beach County	2,490	71%
Wayne County (Detroit Area)	Detroit	1,699	67%

**Limitations.** All YRBS data are self-reported, and the extent of underreporting or overreporting of behaviors cannot be determined, although there have been studies that demonstrate that the data are of acceptable quality.

The data apply only to youths who attend school and, therefore, are not representative of all persons in this age group. Nationwide, in 2012, approximately 3% of persons aged 16–17 years were not enrolled in a high-school program and had not completed high school.<sup>c</sup> The NHIS and Youth Risk Behavior Supplement conducted in 1992 demonstrated that out-of-school youths are more likely than youths attending school to engage in the majority of health-risk behaviors.<sup>d</sup>

Local parental permission procedures are not consistent across school-based survey sites. However, in a 2004 study, the CDC demonstrated that the type of parental permission typically does not affect prevalence estimates as long as student response rates remain high.<sup>e</sup>

### **Notes about Data Terms**

**Lifetime Prescription Drug Misuse** is defined as “*taken prescription drugs (e.g., Oxycontin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor’s prescription one or more times during their life*”.

**Lifetime Inhalant Use** is defined as “*sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life*”.

**Lifetime Synthetic Cannabinoid Use** is defined as “*used “synthetic marijuana” (also called “K2,” “Spice,” “fake weed,” “King Kong,” “Yucatan Fire,” “Skunk,” or “Moon Rocks”) one or more times during their life*”.

**Past Month Binge Alcohol Use** is defined as “*having five or more drinks of alcohol in a row within a couple of hours on at least 1 day during the 30 days before the survey*”.

## Sources

**Data Sources:** Adapted by the NDEWS Coordinating Center from data provided by Centers for Disease Control and Prevention (CDC), 1991–2015 High School Youth Risk Behavior Survey Data. Available at <http://nccd.cdc.gov/youthonline/>. Accessed on [10/11/2016].

**Overview/Methods/Limitations Sources:** Adapted by the NDEWS Coordinating Center from:

<sup>a</sup>Brener N, Kann L, Shanklin S, et al. Methodology of the Youth Risk Behavior Surveillance System—2013. *MMWR Recomm Rep*; 2013, 62(No. RR-1);1–20. Available at <http://www.cdc.gov/mmwr/pdf/rr/rr6201.pdf>. Accessed on [4/10/2015].

<sup>b</sup>Kann L, McManus T, Harris WA, et al. Youth Risk Behavior Surveillance—United States, 2015. *MMWR Surveill Summ* 2016; 65(No. SS-6);1–174. Available at <https://www.cdc.gov/mmwr/volumes/65/ss/ss6506a1.htm>. Accessed on [10/11/2016].

<sup>c</sup>Stark P, Noel AM. Trends in high school dropout and completion rates in the United States: 1972–2012 (NCES 2015-015). US Department of Education. Washington, DC: National Center for Education Statistics; 2015. Available at <http://nces.ed.gov/pubs2015/2015015.pdf>

<sup>d</sup>CDC. Health risk behaviors among adolescents who do and do not attend school—United States, 1992. *MMWR* 1994;43(08):129–32.

<sup>e</sup>Eaton DK, Lowry R, Brener ND, et al. Passive versus active parental permission in school-based survey research: does type of permission affect prevalence estimates of self-reported risk behaviors? *Evaluation Review* 2004;28:564–77.



## ***Overview and Limitations of Treatment Admissions Data from Local Sources***

Treatment admissions data provide indicators of the health consequences of drug use and their impact on the treatment system.<sup>a</sup> The data can provide some indication of the types of drugs being used in geographic areas and can show patterns of use over time. However, it is important to note that treatment data only represent use patterns of individuals entering treatment programs and the availability of particular types of treatment in a geographic area will influence the types of drugs being reported. Also, most sites report only on admissions to publicly funded treatment programs; thus, information on individuals entering private treatment programs may not be represented by the data. It should also be noted that each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.<sup>b</sup>

Treatment admissions data are reported to the NDEWS Coordinating Center by the NDEWS Sentinel Community Epidemiologist for each SCS, when available. Calendar year 2016 data were available for 10 of 12 NDEWS SCSs; data were not available for the Atlanta Metro and Chicago SCSs. See below for site-specific information about the data.

### ***Site-Specific Notes about 2016 Treatment Data and Sources of the Data***

#### **❖ Atlanta Metro**

*Data Availability:* Calendar year 2015 and 2016 data are not available; therefore data for 2012–2014 are presented in the Atlanta Metro SCS Data Tables and Snapshot.

*Catchment Area:* Includes residents of: Barrow, Bartow, Butts, Carroll, Cherokee, Clayton, Cobb, Coweta, Dawson, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Haralson, Heard, Henry, Jasper, Lamar, Meriwether, Morgan, Newton, Paulding, Pickens, Pike, Rockdale, Spalding, and Walton counties.

*Notes & Definitions:*

Admissions: includes admissions to publicly-funded programs.

Marijuana/Synthetic Cannabinoids: the data do not differentiate between marijuana and synthetic cannabinoids.

*Source:* Data provided to the Atlanta Metro NDEWS SCE by the Georgia Department of Human Resources.

#### **❖ Chicago Metro**

*Data Availability:* Calendar Year (CY) data are not available for the Chicago SCS so fiscal year data are presented. Data for 2016 were also not available at this time so FY2012-2015 are presented.

*Catchment Area:* Data were only available for residents of Chicago, not for the entire Chicago MSA.

*Notes & Definitions:*

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

Declines in overall treatment admissions are due to several factors, including budget cuts and changes in providers and payers that affect the reporting of these data (e.g., the expansion of Medicaid under the ACA to cover some forms of drug treatment).

Prescription Opioids: Includes oxycodone/hydrocodone, nonprescription methadone, and other opiates.

*Source:* Data provided to the NDEWS Chicago SCE by the Illinois Department of Human Services, Division of Alcoholism and Substance Abuse (DASA).

## ❖ **Denver Metro**

*Catchment Area:* Includes admissions data for residents of Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas, Gilpin, and Jefferson counties.

### *Notes & Definitions:*

Admissions: Includes admissions (excluding detox and DUI) to all Colorado alcohol and drug treatment agencies licensed by the Colorado Department of Human Services, Office of Behavioral Health (OBH). Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period. Treatment data presented in this year's report differ from data presented in previous SCS reports due to a change in access to treatment data and/or a change in query search terms.

Prescription Opioids: Includes nonprescription methadone and other opiates and synthetic opiates.

MDMA: Coded as "club drugs," which are mostly MDMA.

Other Drugs/Unknown: Includes inhalants, over-the-counter, and other drugs not specified.

*Source:* Data provided to the Denver Metro NDEWS SCE by the Colorado Department of Human Services, Office of Behavioral Health (OBH), Drug/Alcohol Coordinated Data System (DACODS).

## ❖ **King County (Seattle Area)**

### *Notes & Definitions:*

*Data Availability:* 2016 figures are estimates based on doubling preliminary numbers reported for July-December 2016.

Treatment authorizations: Includes admissions to outpatient, opioid treatment programs and residential modalities of care in publicly funded programs. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

Prescription Opioids: Includes hydromorphone, other opiates and synthetics, and oxycodone.

*Source:* Data provided to the King County (Seattle Area) NDEWS SCE by the Washington State Department of Social and Health Services (DSHS) and King County Behavioral Health and Recovery Division for July-Dec 2016.

## ❖ **Los Angeles County**

### *Notes & Definitions:*

Admissions: Includes all admissions to programs receiving any public funds or to programs providing narcotic replacement therapy, as reported to the California Outcomes Monitoring System (CalOMS). An admission is counted only after all screening, intake, and assessment processes have been completed, and all of the following have occurred: 1) the provider has determined that the client meets the program admission criteria; 2) if applicable, the client has given consent for treatment/recovery services; 3) an individual recovery or treatment plan has been started; 4) a client file has been opened; 5) the client has received his/her first direct recovery service in the facility and is expected to continue participating in program activities; and 6) in methadone programs, the client has received his/her first dose. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

Prescription Opioids: Includes drug categories labeled "oxycodone/OxyContin" and "other opiates or synthetics."

*Source:* Data provided to the Los Angeles NDEWS SCE by the California Department of Health Care Services, Mental Health Services Division, Office of Applied Research and Analysis, CalOMS (2013–2016 data) and the California Department of Drug and Alcohol Programs (2012 data).

## ❖ **Maine**

### *Notes & Definitions:*

Admissions: includes all admissions to programs receiving state funding.

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

## ❖ **New York City**

### *Notes & Definitions:*

Non-Crisis Admissions: Includes non-crisis admissions to outpatient, inpatient, residential, and methadone maintenance treatment programs licensed in the state.

Crisis Admissions: Includes detox admissions to all licensed treatment programs in the state

Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

Prescription Opioids: Includes nonprescription methadone, buprenorphine, other synthetic opiates, and OxyContin.

Benzodiazepines: Includes benzodiazepines, alprazolam, and rohypnol.

Synthetic Stimulants: Includes other stimulants and a newly created category, synthetic stimulants (created in 2014).

*Source:* Data provided to the New York City NDEWS SCE by the New York State Office of Alcoholism and Substance Abuse Services (OASAS), Client Data System accessed May 24, 2017 from Local Governmental Unit (LGU) Inquiry Reports.

## ❖ **Philadelphia**

### *Notes & Definitions:*

Admissions: Includes admissions for uninsured and underinsured individuals admitted to any licensed treatment programs funded through the Philadelphia Department of Behavioral Health and Intellectual disAbility Services (DBHIDS). Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

2015 and 2016 Data: Pennsylvania expanded Medicaid coverage under the Affordable Care Act and more than 100,000 additional individuals became eligible in 2015. As individuals who historically have been uninsured become insured, the number of individuals served through the BHSI (Behavioral Health Special Initiative) program has declined; thus treatment admissions reported by BHSI declined from 8,363 in 2014 to 3,507 in 2016. However, similar patterns of substance use were observed among those seeking treatment in 2014 and in 2015.

Beginning in FY2015, services funded by the Pennsylvania Department of Drug and Alcohol Programs and tracked by BHSI for OAS are required to report through an Internet portal. This new reporting system does not require drug of choice in the data collection. The impact of this change in reporting protocol resulted in an increase in the proportion of “unknown” drug of choice in subsequent years.

Methamphetamine: Includes both amphetamines and methamphetamine.

Other Drugs: May include synthetics, barbiturates, and over-the-counter drugs. Synthetic Stimulants and Synthetic Cannabinoids are not distinguishable from “Other Drugs” in the reporting source.

*Source:* Data provided to the Philadelphia NDEWS SCE by the Philadelphia Department of Behavioral Health and Intellectual disAbility Services (DBHIDS), Office of Addiction Services, Behavioral Health Special Initiative.

## ❖ **San Francisco County**

### *Notes & Definitions*

Admissions: Treatment episodes include clients admitted in prior years who are still receiving services in a particular year (e.g., methadone maintenance clients). Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

*Source*: Data provided to the San Francisco NDEWS SCE by the San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.

## ❖ **Southeastern Florida (Miami Area)**

*Catchment Area*: Includes the three counties of the Miami MSA—Broward, Miami-Dade, and Palm Beach counties.

### *Notes & Definitions:*

Admissions: Includes admissions of all clients in programs receiving any public funding located in Miami-Dade, Broward and Palm Beach counties as provided by the Florida Department of Children and Families Office of Substance Abuse and Mental Health. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

2012–2013: Data for Palm Beach County is not available for 2012–2013, therefore, data for 2012–2013 only includes data for Broward and Miami-Dade counties.

*Source*: Data provided to the Southeastern Florida NDEWS SCE by the Florida Department of Children and Families, Office of Substance Abuse and Mental Health.

## ❖ **Texas**

### *Notes & Definitions:*

Admissions: Includes all admissions reported to the Clinical Management for Behavioral Health Services (CMBHS) of the Texas Health and Human Services Commission, Behavioral Health Services (HHSC BHS). Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

Methamphetamine: Includes amphetamines and methamphetamine.

**Please Note**: Treatment data presented in this year's report differ from data presented in previous NDEWS reports because the treatment data for Texas have been revised.

*Source*: Data provided to the Texas NDEWS SCE by the Texas Health and Human Services Commission, Behavioral Health Services (HHSC BHS).

## ❖ **Wayne County (Detroit Area)**

### *Notes & Definitions:*

Admissions: Admissions whose treatment was covered by Medicaid or Block Grant funds; excludes admissions covered by private insurance, treatment paid for in cash, and admissions funded by the Michigan Department of Corrections. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

Synthetic Stimulants: Includes amphetamines and synthetic stimulants; data suppressed to protect confidentiality.

*Source*: Data provided to the Wayne County (Detroit Area) NDEWS SCE by the Michigan Department of Health and Human Services, Bureau of Behavioral Health and Developmental Disabilities, Division of Quality Management and Planning, Performance Measurement and Evaluation Section.

## Sources

**Data Sources:** Adapted by the NDEWS Coordinating Center from data provided by NDEWS SCEs listed above.

**Overview/Methods/Limitations Sources:** Adapted by the NDEWS Coordinating Center from:

<sup>a</sup>National Institute on Drug Abuse; National Institutes of Health; U.S. Department of Health and Human Services, *Assessing Drug Abuse Within and Across Communities, 2<sup>nd</sup> Edition*. 2006. Available at: <https://www.drugabuse.gov/publications/assessing-drug-abuse-within-across-communities>

<sup>b</sup>National Institute on Drug Abuse; National Institutes of Health; U.S. Department of Health and Human Services, *Epidemiologic Trends in Drug Abuse, Proceedings of the Community Epidemiology Work Group, Highlights and Executive Summary, June 2014*. Available at: <https://www.drugabuse.gov/sites/default/files/cewgjune2014.pdf>

## ***Overview and Limitations of CDC WONDER Multiple Cause of Death Data***

The multiple cause-of-death mortality files from the National Vital Statistics System (NVSS) (queried from the CDC WONDER Online Database) were used to identify drug overdose (poisoning) deaths. Mortality data are based on information from all death certificates for U.S. residents filed in the 50 states and the District of Columbia. Deaths of nonresidents and fetal deaths are excluded. The death certificates are either 1) coded by the states or provided to the CDC's National Center for Health Statistics (NCHS) through the Vital Statistics Cooperative Program; or 2) coded by NCHS from copies of the original death certificates provided to NCHS by the respective state registration office. Each death certificate contains a single underlying cause of death, up to 20 additional multiple causes, and demographic data.<sup>1</sup> ([Click here for more information about CDC WONDER Multiple Cause of Death data](#))

The drug-specific poisoning deaths presented in the National Drug Early Warning System (NDEWS) reports are deaths that have been certified "as due to acute exposure to a drug, either alone or in combination with other drugs or other substances" (Goldberger, Maxwell, Campbell, & Wilford, p. 234)<sup>2</sup> and are identified by using the World Health Organization's (WHO's) *International classification of diseases, 10th Revision* (ICD-10)<sup>3</sup> **underlying cause-of-death** codes X40–X44, X60–X64, X85, and Y10–Y14. Drug-specific poisoning deaths are the subset of drug overdose (poisoning) deaths with drug-specific **multiple cause-of-death** codes (i.e., T-codes). For the definitions of specific ICD-10 codes, see the section titled **Notes About Data Terms**. Each death certificate may contain up to 20 causes of death indicated in the multiple cause-of-death (MCOD) field. Thus, the total count across drugs may exceed the actual number of dead persons in the selected population. Some deaths involve more than one drug; these deaths are included in the rates for each drug category.

As stated in its report, *Consensus Recommendations for National and State Poisoning Surveillance*, the Safe States Injury Surveillance Workgroup on Poisoning (ISW7)<sup>a</sup> identified the limitations of using mortality data from NVSS to measure drug poisoning deaths:

Several factors related to death investigation and reporting may affect measurement of death rates involving specific drugs. At autopsy, toxicological lab tests may be performed to determine the type of legal and illegal drugs present. The substances tested for and circumstance in which tests are performed vary by jurisdiction. Increased attention to fatal poisonings associated with prescription pain medication may have led to changes in reporting practices over time such as increasing the level of substance specific detail included on the death certificates. Substance-

<sup>a</sup> The Safe States Alliance, a nongovernmental membership association, convened the Injury Surveillance Workgroup on Poisoning (ISW7) to improve the surveillance of fatal and nonfatal poisonings. Representation on the ISW7 included individuals from the National Center for Injury Prevention and Control (NCIPC), the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention (CDC), the Substance Abuse and Mental Health Services Administration (SAMHSA), the Council of State and Territorial Epidemiologists (CSTE), the American Association of Poison Control Centers (AAPCC), the Association of State and Territorial Health Officials (ASTHO), the Society for the Advancement of Injury Research (SAVIR), state health departments, academic centers, the occupational health research community, and private research organizations.

specific death rates are more susceptible to measurement error related to these factors than the overall poisoning death rate. ([The Safe States Alliance, p. 63](#))<sup>4</sup>

Warner et al.<sup>5</sup> found that there was considerable variation in certifying the manner of death and the percentage of drug intoxication deaths with specific drugs identified on death certificates and that these variations across states can lead to misleading cross-state comparisons. Based on 2008–2010 data, Warner et al.<sup>5</sup> found that the percentage of deaths with an “undetermined” manner of death ranged from 1% to 85%. Thus, comparing state-specific rates of *unintentional* or *suicidal* drug intoxication deaths would be problematic because the “magnitude of the problem will be underestimated in States with high percentages of death in which the manner is *undetermined*.”<sup>5</sup> The drug overdose (poisoning) deaths presented in the NDEWS tables include the various manner of death categories: unintentional (X40–X44); suicide (X60–X64); homicide (X85); or undetermined (Y10–Y14).

Based on 2008–2010 data, Warner et al.<sup>5</sup> found that the percentage of drug overdose (poisoning) deaths with specific drugs mentioned varied considerably by state and type of death investigation system. The authors found that in some cases, deaths without a specific drug mentioned on the death certificate may indicate a death involving multiple drug toxicity. The **Percent of Drug Overdose (Poisoning) Deaths with Drug(s) Specified** statistic is calculated for each NDEWS SCS catchment area so the reader can assess the thoroughness of the data for the catchment area. This statistic is defined as drug poisoning deaths with at least one ICD-10 multiple cause of death in the range T36–T50.8.

### **Notes About Data Terms**

**Underlying Cause of Death (UCOD):** The CDC follows the WHO’s definition of *underlying cause of death*: “[T]he disease or injury which initiated the train of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury.” Underlying cause of death is selected from the conditions entered by the physician on the cause-of-death section of the death certificate. When more than one cause or condition is entered by the physician, the underlying cause is determined by the sequence of condition on the certificate, provisions of the ICD, and associated selection rules and modifications. ([Click here for more information about CDC WONDER Multiple Cause of Death data](#))

**Specific ICD-10 codes for *underlying cause of death***<sup>3</sup> ([Click here to see full list of WHO ICD-10 codes](#))

**X40:** Accidental poisoning by and exposure to nonopioid analgesics, antipyretics, and antirheumatics.

**X41:** Accidental poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism, and psychotropic drugs, not elsewhere classified.

**X42:** Accidental poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified.

**X43:** Accidental poisoning by and exposure to other drugs acting on the autonomic nervous system.

**X44:** Accidental poisoning by and exposure to other and unspecified drugs, medicaments, and biological substances.

**X60:** Intentional self-poisoning (suicide) by and exposure to nonopioid analgesics, antipyretics, and antirheumatics.

**X61:** Intentional self-poisoning (suicide) by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism, and psychotropic drugs, not elsewhere classified.

**X62:** Intentional self-poisoning (suicide) by, and exposure to, narcotics and psychodysleptics [hallucinogens], not elsewhere classified.

**X63:** Intentional self-poisoning (suicide) by and exposure to other drugs acting on the autonomic nervous system.

**X64:** Intentional self-poisoning (suicide) by and exposure to other and unspecified drugs, medicaments, and biological substances.

**X85:** Assault (homicide) by drugs, medicaments, and biological substances.

**Y10:** Poisoning by and exposure to nonopioid analgesics, antipyretics, and antirheumatics, undetermined intent.

**Y11:** Poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism, and psychotropic drugs, not elsewhere classified, undetermined intent.

**Y12:** Poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified, undetermined intent.

**Y13:** Poisoning by and exposure to other drugs acting on the autonomic nervous system, undetermined intent.

**Y14:** Poisoning by and exposure to other and unspecified drugs, medicaments, and biological substances, undetermined intent.

**Multiple Cause of Death:** Each death certificate may contain up to 20 *multiple causes of death*. Thus, the total count by “any mention” of cause in the *multiple cause of death* field may exceed the actual number of dead persons in the selected population. Some deaths involve more than one drug; these deaths are included in the rates for each drug category. ([Click here for more information about CDC WONDER Multiple Cause of Death data](#))

### **Drug-specific ICD-10 T-codes for *multiple cause of death*<sup>3</sup>**

([Click here to see full list of WHO ICD-10 codes](#))

Any Opioids (T40.0–T40.4 or T40.6) [T40.0 (Opium) and T40.6 (Other and Unspecified Narcotics)]

Heroin (T40.1)

Methadone (T40.3)

Natural Opioid Analgesics (T40.2)

Please note the ICD-10 refers to T40.2 as *Other Opioids*; CDC has revised the wording for clarity:

<http://www.cdc.gov/drugoverdose/data/analysis.html>

Synthetic Opioid Analgesics (T40.4)

Please note the ICD-10 refers to T40.4 as *Other Synthetic Narcotics*; CDC has revised the wording for clarity:

<http://www.cdc.gov/drugoverdose/data/analysis.html>

Cocaine (T40.5)

Psychostimulants with Abuse Potential [excludes cocaine] (T43.6)

Cannabis (derivatives) (T40.7)



## Benzodiazepines (T42.4)

**Percentage of Drug Overdose (Poisoning) Deaths with Drug(s) Specified:** Percentage of drug overdose (poisoning) deaths that mention the type of drug(s) involved, by catchment area. This statistic is defined as drug poisoning deaths with at least one ICD-10 multiple cause of death in the range T36–T50.8.

**Population (used to calculate rates):** The population estimates used to calculate the crude rates are bridged-race estimates based on Bureau of the Census estimates of total U.S. national, state, and county resident populations. The year 2010 populations are April 1 modified census counts. The year 2011–2015 population estimates are bridged-race postcensal estimates of the July 1 resident population. [Click here for more information about CDC WONDER Multiple Cause of Death data](#)

**Age-Adjusted Rate:** Age-adjusted death rates are weighted averages of the age-specific death rates, where the weights represent a fixed population by age. They are used to compare relative mortality risk among groups and over time. An age-adjusted rate represents the rate that would have existed had the age-specific rates of the particular year prevailed in a population whose age distribution was the same as that of the fixed population. Age-adjusted rates should be viewed as relative indexes rather than as direct or actual measures of mortality risk. The rate is adjusted based on the age distribution of a standard population allowing for comparison of rates across different sites. The year “2000 U.S. standard” is the default population selection for the calculation of age-adjusted rates. ([Click here for more information about CDC WONDER Multiple Cause of Death data](#))

**Suppressed Data:** As of May 23, 2011, all subnational data representing 0–9 deaths are suppressed (privacy policy). Corresponding subnational denominator population figures are also suppressed when the population represents fewer than 10 persons. ([Click here for more information about CDC WONDER Multiple Cause of Death data](#))

**Unreliable Data:** Estimates based on fewer than 20 deaths are considered unreliable and are not displayed. ([Click here for more information about CDC WONDER Multiple Cause of Death data](#))

## Sources

**Data Sources:** Adapted by the NDEWS Coordinating Center from data taken from the Centers for Disease Control and Prevention, National Center for Health Statistics, *Multiple cause of death 1999–2015*, available on the CDC WONDER Online Database, released December 2016. Data compiled in the *Multiple cause of death 1999–2015* were provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved between February 2017 - June 2017, from <http://wonder.cdc.gov/mcd-icd10.html>

**Overview/Methods/Limitations Sources:** Adapted by the NDEWS Coordinating Center from:

<sup>1</sup>Center from Centers for Disease Control and Prevention, National Center for Health Statistics. (2015). *Multiple cause of death 1999–2014*. Retrieved December 16, 2015, from <http://wonder.cdc.gov/wonder/help/mcd.html>

<sup>2</sup>Goldberger, B. A., Maxwell, J. C., Campbell, A., & Wilford, B. B. (2013). Uniform standards and case definitions for classifying opioid-related deaths: Recommendations by a SAMHSA consensus panel. *Journal of Addictive Diseases*, 32, 231–243.

<sup>3</sup>World Health Organization (WHO). (2016). *International statistical classification of diseases and related health problems 10th Revision*. Retrieved March 14, 2016, from <http://apps.who.int/classifications/icd10/browse/2016/en>

<sup>4</sup>The Safe States Alliance. (2012). *Consensus recommendations for national and state poisoning surveillance*. Atlanta, GA: Injury Surveillance Workgroup 7.

<sup>5</sup>Warner, M., Paulozzi, L. J., Nolte, K. B., Davis, G. G., & Nelson, L.S. (2013). State variation in certifying manner of death and drugs involved in drug intoxication deaths. *Acad Forensic Pathol*, 3(2),231–237.

## Overview and Limitations of National Forensic Laboratory Information System (NFLIS) Data

The Drug Enforcement Administration's (DEA) National Forensic Laboratory Information System (NFLIS) systematically collects results from drug analyses conducted by State and local forensic laboratories. These laboratories analyze controlled and noncontrolled substances secured in law enforcement operations across the United States. The NFLIS participation rate, defined as the percentage of the national drug caseload represented by laboratories that have joined NFLIS, is currently over 98%. NFLIS includes 50 State systems and 101 local or municipal laboratories/laboratory systems, representing a total of 277 individual laboratories. The NFLIS database also includes Federal data from DEA and U.S. Customs and Border Protection (CBP) laboratories.<sup>a</sup>

**Limitations.** NFLIS includes results from completed analyses only. Drug evidence secured by law enforcement but not analyzed by laboratories is not included in the NFLIS database.

State and local policies related to the enforcement and prosecution of specific drugs may affect drug evidence submissions to laboratories for analysis.

Laboratory policies and procedures for handling drug evidence vary. Some laboratories analyze all evidence submitted to them, whereas others analyze only selected case items. Many laboratories do not analyze drug evidence if the criminal case was dismissed from court or if no defendant could be linked to the case.<sup>a</sup>

### ***Notes about Reporting Labs***

Reporting anomalies were identified in several NDEWS SCSs in 2016 and are described below:

- ❖ **Denver Metro Area:** The Aurora Police Department laboratory's last reported data are from July 2014, following the migration to a new laboratory information management system (LIMS).
- ❖ **San Francisco County:** The San Francisco Police Department (SFPD) laboratory has been closed since 2010; however, beginning in January 2012, the Alameda Sheriff Department laboratory began reporting their SFPD cases to NFLIS. All available data from the SFPD are included in the counts. Please note that previously published 2014 and 2015 San Francisco County NDEWS reports did not include SFPD cases analyzed by the Alameda Sheriff Department laboratory. The dramatic increases in this year's 2016 data, compared to 2014 and 2015, are a result of the inclusion of SFPD data analyzed by the Alameda laboratory.
- ❖ **Texas:** The Austin Police Department laboratory resumed reporting for 2016. Dallas Institute of Forensic Science is a new lab reporting all 2016 data to date.
- ❖ **Wayne County (Detroit Area):** The Michigan State Police began reporting data from a lab in Detroit starting in March 2016.

### ***Notes about Data Terms***

**SCS Drug Report:** Drug that is identified in law enforcement items, submitted to and analyzed by Federal, State, or local forensic labs and included in the NFLIS database. This database allows for the reporting of up to three drug reports per item submitted for analysis.

For each site, the NFLIS drug reports are based on submissions of items seized in the site's catchment area. The catchment area for each site is described in the Notes section below each table. The time frame is January through December 2016. Data were retrieved from the NFLIS Data Query System (DQS) on May 28, 2017. Please note that

the data are subject to change; data queried on different dates may reflect differences in the time of data analyses and reporting.

**National Estimates in Table 5a of the Cross-Site Data Presentation of NFLIS data:** The top 10 most frequently identified drugs in the United States are included in Table 5a; this list comes from the DEA's [National Forensic Laboratory Information System \(NFLIS\) Annual 2016 Report](#) and is based on national estimates of drug reports using the NEAR (National Estimates Based on All Reports) approach. The NEAR estimates are based on cases and items submitted to laboratories from January through December 2016 that were analyzed by March 31, 2017. A national sampling frame of all State and local forensic laboratories that routinely perform drug chemistry analyses has been developed based on laboratory-specific information, such as annual caseloads, ascertained from a 1998 survey (updated in 2002, 2004, 2008, and 2013).<sup>a</sup> A probability proportional to size (PPS) sample was drawn on the basis of annual cases analyzed per laboratory resulting in a NFLIS national sample of 29 State laboratory systems and 31 local or municipal laboratories, and a total of 168 individual laboratories.<sup>a</sup> Over the years, the number of non-sampled laboratories reporting to NFLIS has increased, so the DEA sought ways to use the data submitted by these "volunteer" laboratories. Since 2011, data from the "volunteer" laboratories have been included and assigned a weight of one. Estimates are more precise, especially for recent years, due to this inclusion of a large number of volunteer laboratories. This precision allows for more power to detect trends and fewer suppressed estimates."<sup>a</sup>

Since 2011, for each drug item (exhibit) analyzed by a laboratory in the NFLIS program, up to three drugs were reported to NFLIS and counted in the estimation process. A further enhancement to account for multiple drugs per item was introduced in 2017 for the 2016 Annual Report. All drugs reported in an item are now counted in the estimation process. This change ensures that the estimates will take into consideration all reported substances including emerging drugs of interest that may typically be reported as the fourth or fifth drug within an item. This change was implemented in the 2016 data processing cycle and for future years.<sup>a</sup> (See [National Forensic Laboratory Information System \(NFLIS\): Statistical Methodology](#) report for more information about how the national estimates are derived).

**NPS Categories:** Five new psychoactive substance (NPS) drug categories and Fentanyl are of current interest to the NDEWS Project because of the recent increase in their numbers, types, and availability. The five NPS categories are: synthetic cannabinoids, synthetic cathinones, piperazines, tryptamines, and 2C Phenethylamines.

**Other Fentanyl**s are substances that are structurally related to fentanyl (e.g., acetylfentanyl and butyryl fentanyl).

A complete list of drugs included in the Other Fentanyl category that were reported to NFLIS during the January to December 2016 timeframe includes:

3-METHYLFENTANYL  
3-METHYLTHIOFENTANYL  
4-METHOXY-BUTYRYL FENTANYL  
ACETYL-ALPHA-METHYLFENTANYL  
ACETYLFENTANYL  
ACRYL-ALPHA-METHYLFENTANYL  
ACRYLFENTANYL  
ALFENTANIL  
ALPHA-METHYLFENTANYL  
ALPHA-METHYLTHIOFENTANYL  
BENZYLFENTANYL  
BETA-HYDROXY-3-METHYLFENTANYL

BETA-HYDROXYFENTANYL  
Beta-HYDROXYTHIOFENTANYL  
BUTYRYL FENTANYL  
CARFENTANIL  
CIS-3-METHYLFENTANYL  
DESPROPIONYL FENTANYL  
FLUOROFENTANYL  
FLUOROISOBUTYRYLFENTANYL  
FURANYL FENTANYL  
LOFENTANIL  
ORTHO-FLUOROFENTANYL  
P-FLUOROBUTYRYL FENTANYL (P-FBF)  
P-FLUOROFENTANYL  
P-FLUOROISOBUTYRYL FENTANYL  
REMIFENTANIL  
SUFENTANIL  
THENYLFENTANYL  
THIOFENTANYL  
TRANS-3-METHYLFENTANYL  
VALERYL FENTANYL

### **Sources**

**Data Sources:** SCS Drug Report data adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Diversion Control Division, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from NFLIS Data Query System (DQS) May 28, 2017.

National estimates adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Diversion Control Division. (2017) *National Forensic Laboratory Information System: 2016 Annual Report*. Springfield, VA: U.S. Drug Enforcement Administration. Available at:  
<https://www.nflis.deadiversion.usdoj.gov/DesktopModules/ReportDownloads/Reports/NFLIS2016AR.pdf>

**Overview/Methods/Limitations Sources:** <sup>a</sup>Adapted by the NDEWS Coordinating Center from U.S. Drug Enforcement Administration (DEA), Diversion Control Division. (2017) *National Forensic Laboratory Information System: 2016 Annual Report*. Springfield, VA: U.S. Drug Enforcement Administration. Available at:  
<https://www.nflis.deadiversion.usdoj.gov/DesktopModules/ReportDownloads/Reports/NFLIS2016AR.pdf>

U.S. Drug Enforcement Administration (DEA), Diversion Control Division. (2017) *National Forensic Laboratory Information System: Statistical Methodology Revised September 2017*. Springfield, VA: U.S. Drug Enforcement Administration. Available at:  
<https://www.nflis.deadiversion.usdoj.gov/DesktopModules/ReportDownloads/Reports/NFLIS-2017-StatMethodology.pdf>