

NDEWS *National Drug Early Warning System*

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

Los Angeles County Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2017

November 2017

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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.

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.

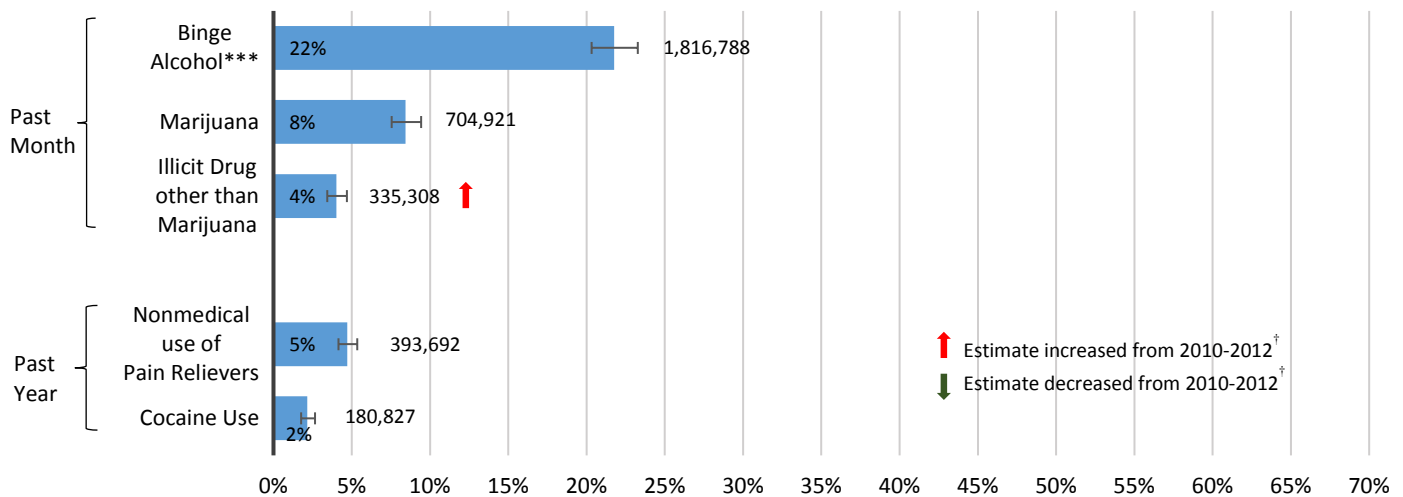
Los Angeles County SCS Snapshot, 2017

Substance Use

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

Persons 12+ Years Reporting Selected Substance Use, Los Angeles County[^], 2012-2014

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



*U.S. Population: U.S. civilian non-institutionalized population. [^]Los Angeles County: NSDUH Region 11 (Los Angeles County). **Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (8,347,839) from Table C1 of the NSDUH Report.

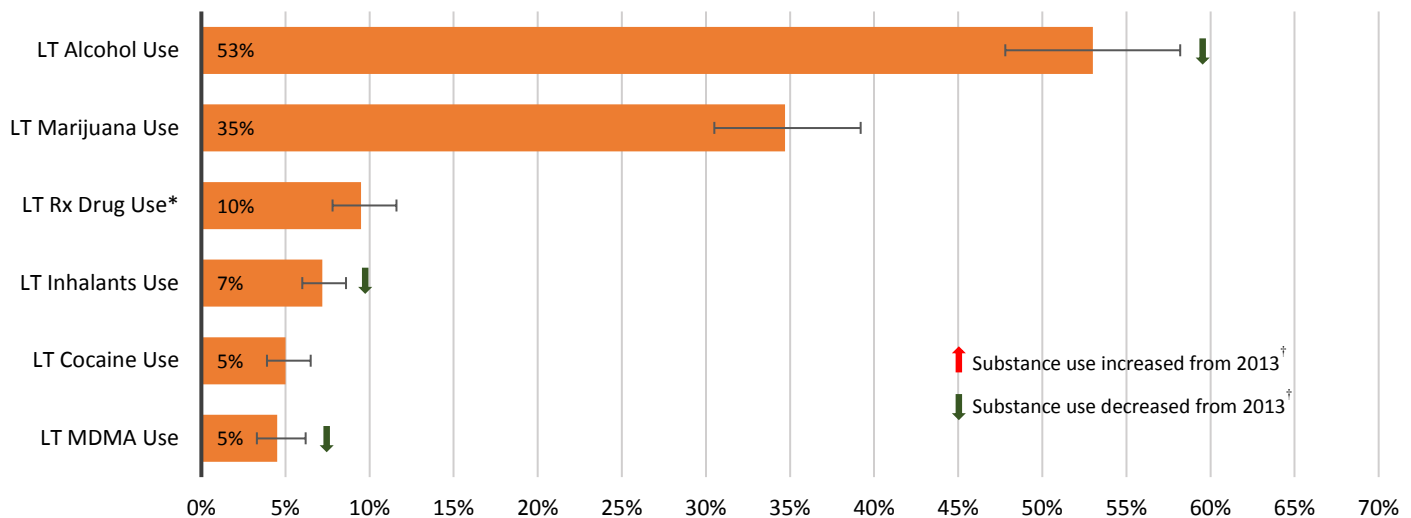
***Binge Alcohol: Defined as drinking five or more drinks on the same occasion. [†]Statistically significant change: $p < 0.05$.

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) Use of Selected Substances, Los Angeles, 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.

[†]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.

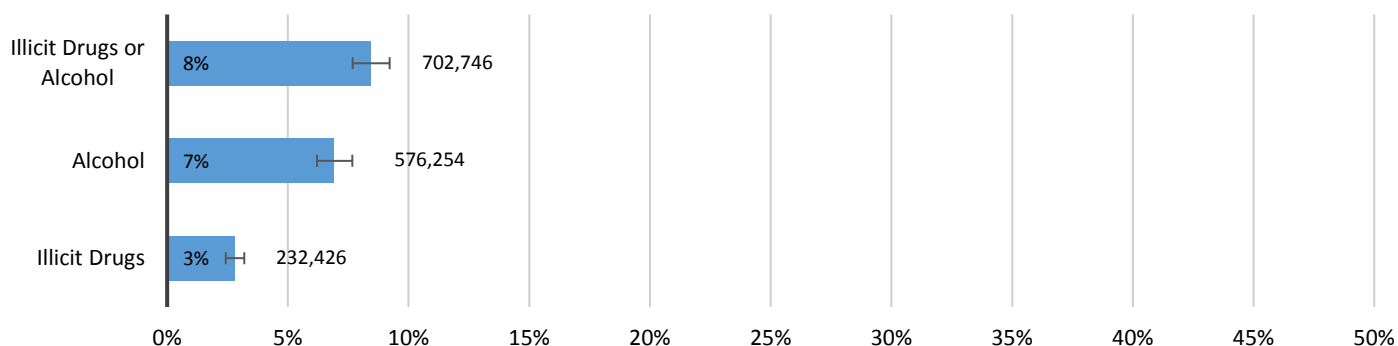
Source: Adapted by the NDEWS Coordinating Center from data provided by CDC, 1991-2015 High School YRBS data.

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, Los Angeles County^, 2012-2014

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



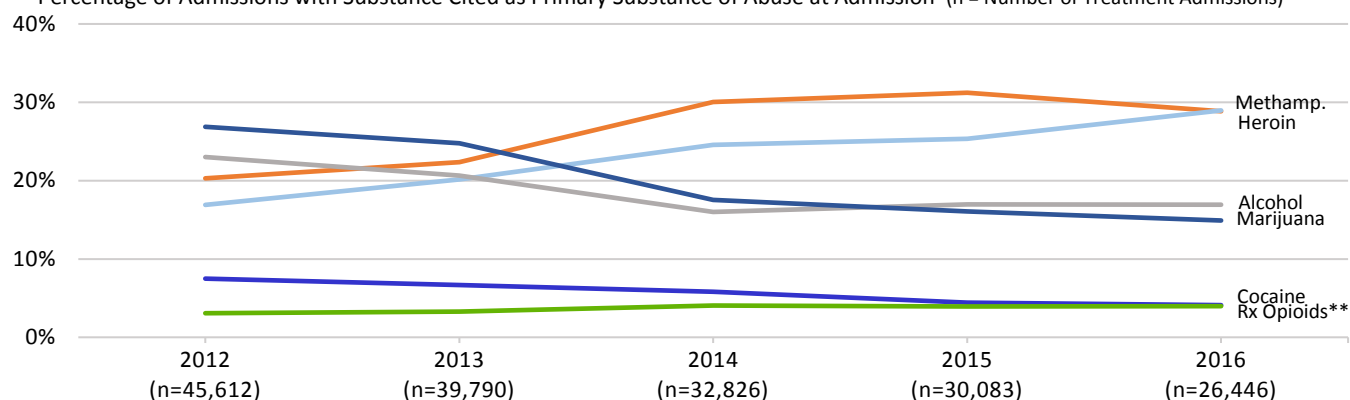
*U.S. Population: U.S. civilian non-institutionalized population. **Substance Use Disorders in Past Year: Persons are classified as having a substance use disorder in the past 12 months based on responses to questions that meet the criteria specified in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. ^Los Angeles County: NSDUH Region 11 (Los Angeles County). ***Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (8,347,839) 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.

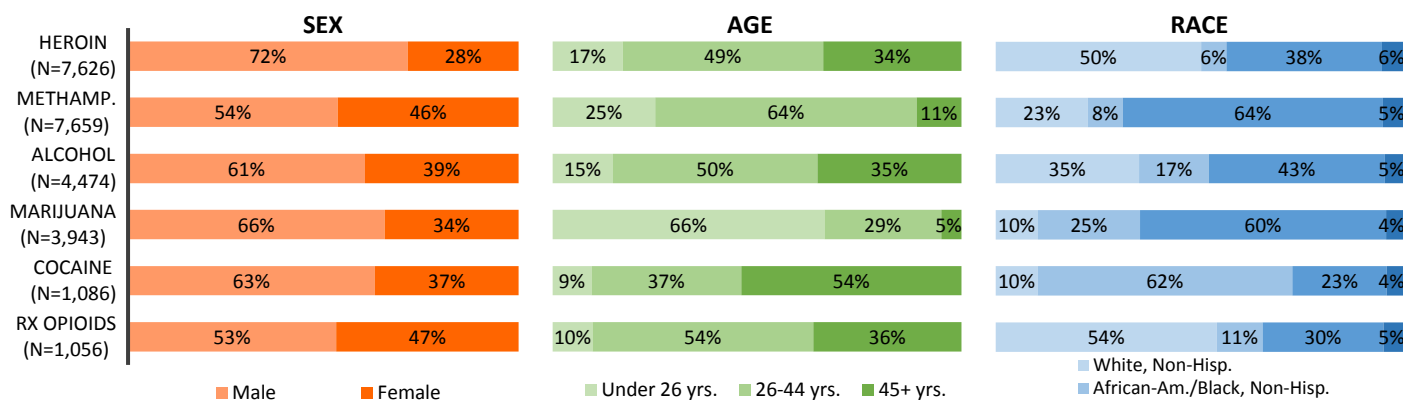
Treatment Admissions Data from Local Sources

Trends in Treatment Admissions*, by Primary Substance of Abuse, Los Angeles County, 2012-2016

Percentage of Admissions with Substance Cited as Primary Substance of Abuse at Admission (n = Number of Treatment Admissions)



Demographic Characteristics of Treatment Admissions*, Los Angeles County, 2016



*Treatment 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). **Rx Opioids: Includes drug categories labeled "oxycodone/OxyContin" and "other opiates or synthetics." 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.

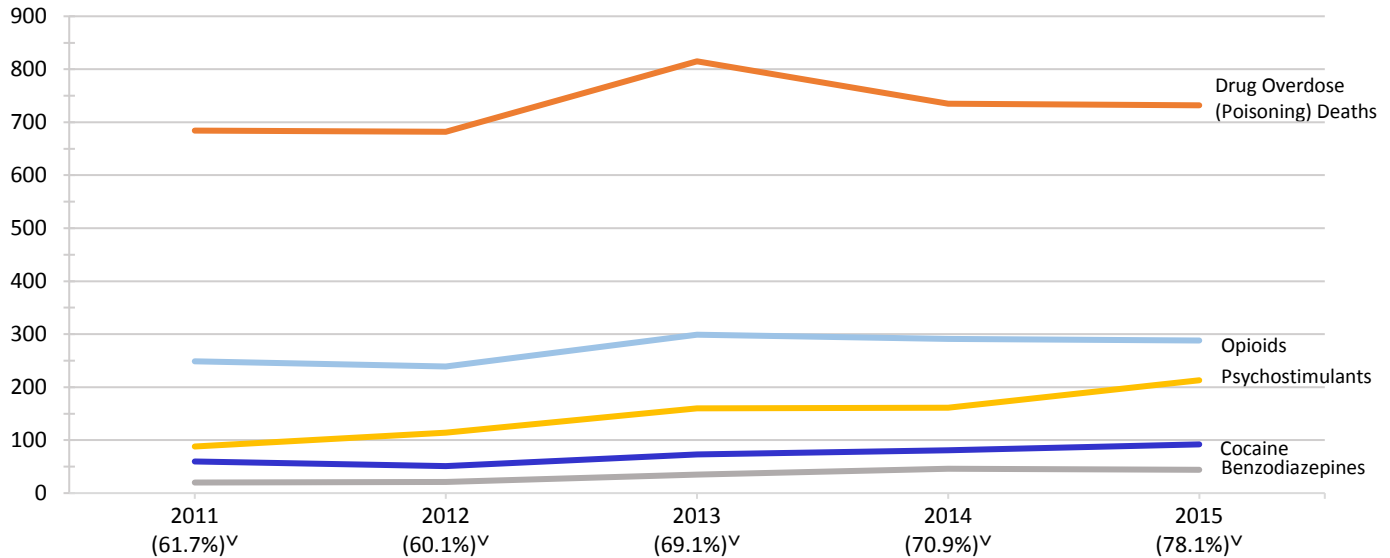
Source: Data provided to the Los Angeles NDEWS SCE by the California Department of Health Care Services, Mental Health Services Division, Office of Applied Research and Analysis, CalOMS (2013 and 2014 data) and the California Department of Drug and Alcohol Programs (2012 data).

Drug Overdose (Poisoning) Deaths

National Vital Statistics System (NVSS) via CDC WONDER

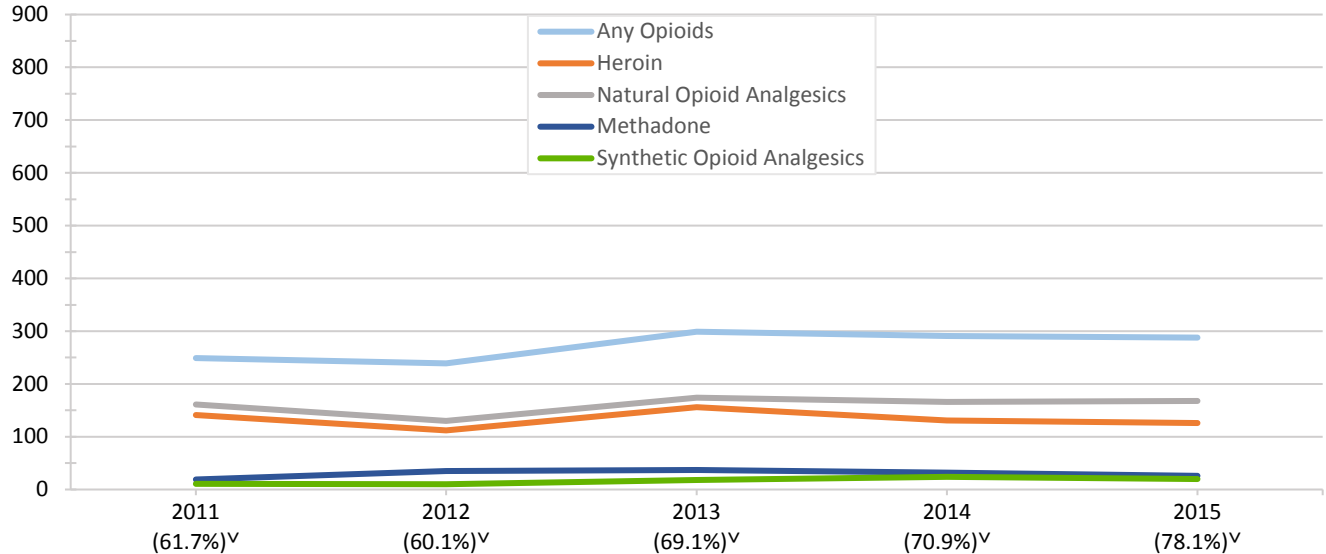
Trends in Drug Overdose (Poisoning) Deaths*, by Drug**, Los Angeles^, 2011–2015

(Number of Deaths and Percent of Drug Overdose (Poisoning) Deaths with Drug(s) Specified^)



Trends in Opioid Overdose (Poisoning) Deaths*, by Opioid, Los Angeles^, 2011–2015

(Number of Deaths, by Drug** and Percent of Drug Overdose (Poisoning) Deaths with Drug(s) Specified^)



*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 (MCOD) 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). ^Los Angeles: Comprised of Los Angeles County. ^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 MCOD code in the range T36-T50.8. 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 Los Angeles County 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 (%)
TOTAL Drug Reports	27,672	100%
Top 10 Drug Reports***		
Methamphetamine	11,369	41.1%
Cannabis	7,177	25.9%
Cocaine	3,445	12.4%
Heroin	1,969	7.1%
Alprazolam	709	2.6%
3,4-Methylenedioxymethamphetamine (MDMA)	325	1.2%
3,4-Methylenedioxyamphetamine (MDA)	245	0.9%
Phencyclidine	191	0.7%
Hydrocodone	161	0.6%
Oxycodone	111	0.4%
Top 10 Total	25,702	92.9%
New Psychoactive Substances (NPS) Drug Categories†		
Fentanyl and Other Fentanyl‡	67	0.2%
Synthetic Cathinones	21	<0.1%
Synthetic Cannabinoids	18	<0.1%
Tryptamines	7	<0.1%
2C Phenethylamines	2	<0.1%
Piperazines	1	<0.1%
Any Opioid†	2,564	9.3%

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

Fentanyl and Other Fentanyl‡ (n=67)

Fentanyl (99%)
Acetylfentanyl (1%)

Synthetic Cathinones (n=21)

Ethylone (38%)
Methylone (29%)
Butylone (19%)
4-CMC; Clephedrone (10%)
Pentylone (5%)

Synthetic Cannabinoids (n=18)

Synthetic Cannabinoid (50%)
MDMB-FUBINACA (17%)
5-Fluoro-AMB (11%)
5-Fluoro-SDB-005 (6%)
AB-FUBINACA (6%)
FUB-AMB (6%)
XLR-11 (6%)

*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.

***Note that 2 non-drug-specific categories had prevalence as follows: 'negative results'=0.8%, 235 reports; 'no controlled drug identified'=0.8%, n=220 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.

National Drug Early Warning System (NDEWS) Los Angeles County Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2017: SCE Narrative

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Highlights

- Continuing increases in three indicators for **methamphetamine**. Methamphetamine ranked number 1 in 2016 for primary drug at treatment admission and for drug reports from the National Forensic Laboratory Information System (NFLIS) with increases in percentages for 2016 over 2015. There was also an increase in the number of Los Angeles County medical examiner cases testing positive for methamphetamine. Reports from the Los Angeles Criminal Information Clearinghouse (LA Clear) indicated decreasing prices for methamphetamine, with smaller-quantity wholesale amounts available.
- Considerable public concern about **prescription opioids**. Nevertheless, indicators suggest mixed trends with increases in Los Angeles County medical examiner cases with opioids (not including heroin/morphine) but stable or slightly decreasing trends in 2016 as compared with 2015 for the category of prescription opioids in other indicators. Within this class of substances, the number of Los Angeles County medical examiner toxicology cases testing positive for fentanyl doubled from 2015 to 2016.
- Mixed trends in indicators for **heroin**. Treatment admissions for primary heroin use remained high (ranked number 2) in 2016 with a slight decrease from 2015; the percentage of NFLIS reports for heroin also decreased, whereas reports increased among Los Angeles County medical examiner toxicology cases.
- Low indicators of **emerging synthetics**. Reports of emerging synthetics remained very low and decreasing across available indicators.
- **Cocaine** indicators were mixed. Although most indicators reported continuing decreases, the number of Los Angeles County medical examiner toxicology cases with cocaine/crack increased in 2016.
- **Benzodiazepine, marijuana, and heroin** indicators were all also mixed.

Primary and Emerging Substance Use Problems

To provide some context relevant to specific data sources, a brief summary of results by data source will be given before providing summaries for each specific drug across data sources.

Admissions for substance abuse treatment in calendar year (CY) 2016 totaled 26,446, continuing a decline in numbers from 30,083 in 2015 and from 45,612 in 2012. This decline is a result of several factors, including decreases in state funding and changes in service delivery. In 2016, four substances accounted for 89.6% of admissions: methamphetamine 29.0%, heroin 28.8%, alcohol 16.9%, and marijuana 14.9%. Cocaine/crack accounted for 4.1% and prescription opioids for 4.0%.

Drug reports from seized items analyzed by the U.S. Drug Enforcement Administration's (DEA's) National Forensic Laboratory Information System (NFLIS) totaled 27,672 for Los Angeles County in 2016. Methamphetamine was identified in 41.1% of the drug reports and cannabis in 25.9%. Other drugs with more than 1% of reports included cocaine (12.4%), heroin (7.1%), alprazolam (a benzodiazepine, 2.6%), and MDMA (1.2%).

Toxicology cases compiled by the Medical Examiner's office for 2016 with results available on 6/15/17 were estimated to total 3,031 (see data source notes at end of report for additional detail on estimation). Percentages reported below for toxicology cases represent fractions of the estimated total for 2016. Alcohol was detected most frequently ($n = 1,311$ [43.2%] cases), followed by methamphetamine (estimated $n = 859$ cases [28.3%]), prescription narcotics ($n = 645$ [21.3%]), THC (tetrahydrocannabinol, an active ingredient in marijuana; $n = 619$ [20.4%]), heroin/morphine metabolites ($n = 451$ [14.9%]), and cocaine ($n = 402$ [13.3%]).

The number of reports of drugs to the *California Poison Control Center* for Los Angeles County in 2016 totaled 4,014. Reports were predominantly for nonillicit substances (86.5%); for example, benzodiazepines accounted for 27.8% of substances reported and prescription narcotics for 14.7%. Illicit substances accounted for 13.5% of substance reports. Among illicit substances, methamphetamine accounted for the largest share (33.0% of the illicit substance reports, 4.5% of total reports), followed by marijuana (31.2% of illicit substance reports, 4.2% of total reports), cocaine/crack (10.9% of illicit, 1.5% of total), and heroin (9.2% of illicit, 1.3% of total).

BENZODIAZEPINES

- Benzodiazepine indicators were mixed.

In 2016, treatment admissions associated with primary benzodiazepine use comprised 0.7%, which was a slight increase from 0.5% in 2015 (Table 4a). Although the numbers of benzodiazepines reported in NFLIS were small, there was an increase in reports of alprazolam in 2016 (2.6%) over 2015 (1.4%), resulting in a fifth place rank for this drug among reports of specific substances. Other benzodiazepines accounted for less than 0.4% of NFLIS reports. Among 2016 Los Angeles County medical examiner toxicology cases, benzodiazepines were reported in 20 cases, which was a substantial decrease from 145 in 2015 (Exhibit 4). Benzodiazepines were reported in 27.8% of 2016 Los Angeles County Poison Control calls, which was an increase from 25.3% in 2015, 23.9% in 2014, and 22.1% in 2013 (Exhibit 2).

COCAINE/CRACK

- Cocaine indicators were mixed. Although most indicators reported continuing decreases, the number of Los Angeles County medical examiner toxicology cases with cocaine/crack increased in 2016.

Of Los Angeles County treatment admissions in 2016, 4.1% ($n = 1,086$) reported crack or powder cocaine as the primary drug of abuse. This represents a continuing decrease for nearly two decades (for example, cocaine/crack admissions constituted 4.4% of total admissions in 2015, 5.8% in 2014, 6.7% in 2013, and 7.5% in 2012) (Table 4a, Exhibit 1). Continuing with an historical gender distribution, a majority (63.1%) of primary cocaine/crack admissions in 2016 were male (Table 4b). Non-Hispanic African Americans/Blacks continued to represent a majority of cocaine admissions (at 62.3% of the total in 2016). Among substances accounting for more than 1% each of 2016 admissions, cocaine/crack displayed the highest percentage of African Americans/Blacks, where this group was substantially overrepresented compared with their general representation across all treatment admissions (14.3%). Cocaine admissions were predominantly 45 years of age and older, with this age group comprising 53.9% of cocaine admissions; note that this 45 and older age group constituted 23.7% of total admissions.

Cocaine retained a rank of third among drugs from NFLIS drug reports in 2016 for Los Angeles County. Continuing decreases in percentages were seen with cocaine accounting for 12.4% of reports in 2016 compared with 14.3% of reports in 2015 and 15.4% in 2014.

Cocaine was detected in 13.3% ($n = 402$) of Los Angeles County medical examiner toxicology cases in 2016, which was an increase over levels in 2015 (12.7%) and 2014 (12.5%) (Exhibit 4). This was a lower percentage of cases in 2016 than for narcotic analgesics, methamphetamine, THC, and heroin/morphine.

Cocaine was reported in 1.5% of 2016 Los Angeles County Poison Control calls, which was the same percentage as for 2015 and slightly higher than for 2014 (1.2%) following a slow decline over several years (e.g., 2.1% in 2008) (Exhibit 3). Within the subgroup of all illicit drugs together (accounting for 13.5% of all substances reported in relevant poison control calls), cocaine accounted for 10.9% of these illicit drug reports.

Lifetime stimulant (cocaine, methamphetamine, amphetamine as an aggregate category) use was reported in the California Healthy Kids Survey (CHKS) by 3% of 9th graders in the Los Angeles Unified School District in 2014–2015 and by 6% of 11th graders. These figures were slightly lower than reported for cocaine in 2012–2013 (5% and 7%, respectively). Continuing decreases in lifetime cocaine use were also reported in the Youth Risk Behavior Surveillance System (YRBSS) for secondary school students in Los Angeles County: 5.0% in 2015, 6.5% in 2013, 9.2% in 2011, and 9.7% in 2009.

According to LA CLEAR (Los Angeles Criminal Information Clearing House), wholesale and retail prices of cocaine have decreased to their lowest levels since 2013: Wholesale prices were at \$20,000 to \$25,000 per kilo at the beginning of 2017 and retail prices were \$20 to \$60/gram.

MARIJUANA

- Marijuana indicators were mixed.

Marijuana as primary drug accounted for 14.9% of Los Angeles County treatment admissions in 2016, which was a decline from levels in 2015 (16.1%) and continuing a downward trend (from 26.9% in 2012) (Table 4a, Exhibit 1). In 2016, approximately two thirds of the primary marijuana admissions were male (65.7%; Table 4b). Marijuana admissions had the largest proportion of clients younger than 18 years (42.8% in 2016, a decrease from 45.6% in 2015 and 48.4% in 2014), compared with this age group share of methamphetamine admissions [2.9%], alcohol admissions [3.2%], cocaine [1.4%], heroin [0.3%], and prescription opioids [0.9%]. A majority of marijuana admissions were Hispanics (at 60.2%), followed by non-Hispanic African American/Blacks (at 25.0%). Of the major illicit substances, the smallest percentage of non-Hispanic Whites (10.3%) was reported for marijuana.

Cannabis was identified in 25.9% of NFLIS drug reports in 2016, with a ranking of second among drugs for Los Angeles County. This was a decrease from 27.3% in 2015, continuing a downward trend since 2010.

THC was detected in 20.4% ($n = 619$) of Los Angeles County medical examiner toxicology cases in 2016, which was a slight increase from 2015 (20.2%) and 2014 levels (19.8%) (Exhibit 4).

Marijuana was reported in 4.2% of 2016 Los Angeles County Poison Control calls, which was an increase from 3.4% in 2015 and 3.3% in 2014 (Exhibit 3). Marijuana accounted for 33.0% of the reports within the category of illicit drugs.

Lifetime marijuana use was reported in the CHKS for the Los Angeles Unified School District by 9% of 7th graders, by 25% of 9th graders, and 36% of 11th graders in 2014–2015 decreasing from 13%, 35%, and 45%, respectively, in 2012–2013 but closer to 2009–2010 levels (9%, 25%, 42%, respectively). Past 30-day use of marijuana was reported by 5% of 7th graders, 13% of 9th graders, and 17% of 11th graders, decreasing from 7%, 20%, 21%, respectively, in 2012–2013 and decreasing from 15% and 21% for 9th and 11th graders, respectively, in 2009–2010. A decrease in lifetime marijuana use was also reported in the YRBSS for secondary school students with 2015 levels at 34.4%, down from 39.3% in 2013 and 42.4% in 2011; likewise, a decrease was seen in past 30-day marijuana use at 16.6% in 2015, down from 20.3% in 2013.

According to LA CLEAR, marijuana prices have remained stable in 2016 and into 1st quarter of 2017, with many grades of marijuana readily available, both imported from Mexico and cultivated domestically.

METHAMPHETAMINE

- Continuing increases in three of four major indicators for *methamphetamine*. Methamphetamine ranked number 1 in 2016 for primary drug at treatment admission and for drug reports from the National Forensic Laboratory Information System (NFLIS) with increases in percentages for 2016 over 2015. There was also an increase in the number of Los Angeles County Medical Examiner cases testing positive for methamphetamine.

Methamphetamine accounted for 29.0% ($n = 7,659$) of admissions to Los Angeles County substance abuse treatment programs in 2016 (Table 4a), which was an increase from 25.3% in 2015 and continuing a generally increasing trend since 2010 (16.9% in 2012 shown in Table 4a; Exhibit 1). Other amphetamines were reported as the primary substance in 0.08% of the total treatment admissions. Compared with admissions for other major illicit drugs, primary methamphetamine admissions had the largest proportion

of females (46.3%; Table 4b). Methamphetamine admissions were most likely to be Hispanic (63.7%), followed by non-Hispanic Whites (22.6%). Among methamphetamine admissions, 2.9% were by clients younger than 18 years of age; 22.2% of admissions were for clients ages 18–25; 63.9% were for clients ages 26–44; and clients 45 or older represented 11.0% of methamphetamine admissions. Smoking continued as the most frequently mentioned route of administration by primary methamphetamine admissions (76.2%). Proportions of injectors (9.7%) and inhalers (11.1%) have generally declined from the 1990s (from 15.2% and 29.9%, respectively, in 1999).

Methamphetamine was ranked first among drugs for Los Angeles County based on drug reports from NFLIS; methamphetamine accounted for 41.1% of reports in 2016, which was an increase from 38.7% in 2015, continuing an upward trend since 2009.

Methamphetamine was detected in an estimated 28.3% ($n = 859$) of Los Angeles County medical examiner toxicology cases in 2016, which was a slight increase over 27.7% in 2015 and 24.3% in 2014 (Exhibit 4).

Methamphetamine was reported in 4.5% of 2016 Los Angeles County Poison Control calls, which was a slight decrease from 2015 (4.8%), attenuating the previous increasing trend from 1.2% in 2008 to 4.8% in 2015 (Exhibit 3).

Lifetime stimulant (cocaine, methamphetamine, amphetamine) use was reported in the CHKS by 3% of 9th graders in the Los Angeles Unified School District in 2014–2015 and by 6% of 11th graders. These figures were slightly lower than reported for methamphetamine in 2012–2013 (5% for 9th graders and 9% for 11th graders). The YRBSS reported 3.4% of secondary school students in 2015 with lifetime methamphetamine use, which was down from 5.1% in 2013 and 6.9% in 2011.

According to LA CLEAR, the price of methamphetamine has continued to decrease: Wholesale prices were at \$2,000 to \$3,000 per pound in the first quarter of 2017 compared with \$2,800 to \$3,500 near the end of 2015 and \$17,500 to \$19,500 in 2008. Retail prices were reported at \$50 to \$80 per 1/8 ounce in early 2017 compared with \$80 to \$140 at the end of 2015. Beginning in 2016, methamphetamine was also being sold in smaller (1/4 and 1/2 pounds) wholesale quantities (priced at \$800 to \$1,000 and \$1,300 to \$1,445, respectively, in early 2017) to increase profits.

NEW PSYCHOACTIVE SUBSTANCES (OTHER THAN OPIOIDS)

- Low indicators of *emerging synthetics*. Reports of emerging synthetics remained very low across available indicators with decreases from the previous year.

The prevalence of emerging synthetic drugs remains very low for Los Angeles County across indicator systems that report these substances. These substances are not yet recorded for statewide treatment admission data and are not routinely examined in all medical examiner toxicology cases. Synthetic cathinones (reported as bath salts by callers) were reported in <0.1% ($n = 4$) of 2016 Los Angeles County Poison Control calls, similar to 2015 ($n = 3$) and lower than 0.3% ($n = 13$) in 2014 (Exhibit 3). Synthetic cathinones accounted for 15 reports or <0.1% of NFLIS drug reports in 2016, which was a decrease from 67 reports in 2015 (or 0.2%) and 201 reports (or 0.6% in 2014). Of these 15 reports in 2016, 8 were reported as ethylone and 4 as butylone. Synthetic cannabinoids (most reported as “spice” by callers) were reported in 0.3% ($n = 11$) of 2016 Los Angeles Poison Control calls, which was a decrease from 0.7% ($n = 33$) in 2015

and 0.5% in 2014 ($n = 23$) (Exhibit 3). Synthetic cannabinoids accounted for <0.1% ($n = 18$) of NFLIS drug reports, which was a decrease from $n = 55$ in 2015 and $n = 86$ in 2014. In 2016, there was 1 report of *piperazines* among Los Angeles County toxicology cases. There was 1 report of piperazines (TFMPP) in NFLIS, which was a decrease from 10 reports in 2015. In 2016 NFLIS data, there were 7 reports of tryptamines, which was consistent with 2015 reports.

OPIOIDS

- Heroin indicators were mixed.
- Considerable public concern about prescription opioids. Nevertheless, indicators suggest mixed trends with increases in Los Angeles County medical examiner cases with opioids (not including heroin/morphine) but stable or slightly decreasing trends in 2016 as compared with 2015 for the category of prescription opioids in other indicators. Within this class of substances, the number of Los Angeles County medical examiner toxicology cases testing positive for fentanyl doubled from 2015 to 2016.

Heroin

In 2016, 7,626 Los Angeles County treatment admissions reported heroin as the primary drug. These heroin admissions represented 28.8% of Los Angeles County admissions (Table 4a, Exhibit 1), which was a decrease from 31.2% in 2015 after a substantial increase from 2013 (22.4%) to 2015. In 2016, heroin admissions were predominantly for males (71.6%) and were most likely to be for non-Hispanic Whites (50.2%) or Hispanics (38.0%). Heroin admissions were predominantly for clients in the 26–44-year age range (49.0%) or who were 45 years of older (33.9%). Although an increasing proportion of the heroin admissions was observed for the 18–25 age group from 2008 (9.0%) to 20.2% in 2013, the percentage of heroin admissions for that age group has declined to 16.8% in 2016.

Heroin/morphine or metabolites were detected in 14.9% of Los Angeles County medical examiner toxicology cases in 2016, which was an increase from 2015 (13.8%) but still lower than in 2014 (16.5%) (Exhibit 4).

Heroin ranked fourth among drugs for Los Angeles County based on NFLIS drug reports. Heroin was identified in 7.1% of NFLIS drug reports, which was a small decrease over 2015 (7.4%).

Heroin was reported in 1.3% of 2016 Los Angeles County Poison Control calls (or 9.2% of reports for illicit drugs), which was a decrease from 2015 (1.8% of all relevant drug reports; 12.9% of reports for illicit drugs) (Exhibit 3).

The YRBSS reported lifetime heroin use among 2.0% of secondary school students in 2016, which was a decrease from 3.0% in 2013 and 4.4% in 2011.

Other Opioids

Admissions for primary drug in the categories “Other opioids/synthetics” or “Oxycodone/OxyContin” continued to constitute a small percentage ($n = 1,056$ or 4.0%) of Los Angeles County treatment admissions in 2016. The gradual increase since 2010 appears to have stabilized in 2015 and 2016 with

levels similar to 2014 (4.1%; Table 4a, Exhibit 1). Admissions for these opioid categories remain predominantly male (53.3%), majority non-Hispanic White (54.1%), and older than 25 years (54.0% were 26–44, which was an increase from 52.3% in this age category in 2015 and 47.9% in 2014; and 36.3% were 45 or older, which was a decrease from 37.8% in 2014 and 42.1% in 2014) (Table 4b). The percentage of opioid admissions for younger users remained relatively stable in 2016 (9.7% were 25 or younger in 2016).

Hydrocodone ranked 9th and oxycodone ranked 10th among drugs for Los Angeles County based on NFLIS drug reports for 2016, accounting for 0.6% and 0.4%, respectively, of total reports. These two prescription opioids were the most prevalent among drugs in the general category of narcotic analgesics; together these two drugs accounted for 1.0% of NFLIS reports, which was consistent with their combined percentage in 2015. The general category of narcotic analgesics accounted for 2.1% of NFLIS drug reports for Los Angeles County in 2016, which was a very slight increase from 2.0% in 2015. Other narcotic analgesics accounting for more than 0.1% of NFLIS reports included tramadol (0.3%), fentanyl (0.2%), and codeine (0.2%); 2016 reports for tramadol and fentanyl increased over 2015 (0.2% and 0.1%, respectively).

One or more narcotic analgesics (not including heroin/morphine) were detected in 21.3% of 2016 Los Angeles County medical examiner toxicology cases, which was an increase from 19.4% in 2015 but lower than 2014 levels (24.4%) (Exhibit 4). Narcotics were identified at a level lower than that of methamphetamine and higher than for other specific categories including THC (tetrahydrocannabinol, an active ingredient in marijuana) and other illicit drugs such as cocaine and heroin/morphine.

Narcotic analgesics were reported in 14.7% of 2016 Los Angeles County Poison Control calls, which was a slight decrease from 15.2% in 2015 (Exhibit 2); of these narcotic analgesic reports, 60.2% were for hydrocodone products in 2016, 21.1% were for oxycodone products, and 1.4% were for fentanyl.

Lifetime use of prescription drugs without a prescription (including pain killers, tranquilizers, or sedatives reported as aggregate category) were reported in the CHKS by 9% of 9th graders and 14% of 11th graders, decreasing from 11% and 15%, respectively, for prescription pain killers in 2012–2013. In the YRBSS, lifetime misuse of prescription drugs (including opioids, Adderall/Ritalin, or tranquilizers) was reported by 9.5% of secondary school students in 2016, which was a decrease from 10.6% in 2013 and 12.1% in 2011.

We looked specifically at fentanyl because of current concern with fentanyl-related deaths in several locations across the United States. Fentanyl was identified in 0.2% of NFLIS drug reports for Los Angeles County in 2016 ($n = 66$), which was more than double the number ($n = 31$) and percentage of 2015 reports. Fentanyl was reported in 8 calls to the California Poison Control System for Los Angeles County in 2016, which was a decrease from 20 reports in 2015 and 23 reports in 2014. Fentanyl was reported in 115 toxicology cases by the Los Angeles medical examiner for 2016, more than double the 2015 number ($n = 47$). The highest percentage (45%) of fentanyl cases by age group were for those ages 26–44, whereas in 2015, the highest percentage (49%) was for those ages 45 or older.

Infectious Diseases Related to Substance Use

According to CDC reports, there were 2001 HIV diagnoses in the Los Angeles County portion of the Los Angeles/Anaheim metropolitan statistical area in 2015 (rate of 23.4/100,000 population), which was a decline from 2251 in 2014 (rate of 26.6). Males accounted for a large majority of diagnoses (89.5% in 2015); the rate per 100,000 population for males was 42.9, which was a decline from a rate of 48.7 in 2014. Among males, men who have sex with men (MSM) contact remained the predominant vector of transmission (93.0%). Injection drug use (IDU) was reported as transmission vector in 2.7% cases and MSM/IDU in 3.0%, increasing from 2.0% and 2.6%, respectively, in 2014. Among females (10.5% of diagnoses, rate of 4.8/100,000 population), heterosexual contact was the primary vector of transmission (84.8% of female diagnoses). Although IDU remained the secondary vector of transmission at 15.2% for women, this was a slight increase over 14.5% in 2014. Among males, the rate of diagnosis was highest for the Black/African American race/ethnic group at 121.8 per 100,000 (compared with 43.6 for Hispanic/Latino, 33.0 for White, and 15.1 for Asian). Among males, the highest rate by age grouping was for 25–34 year olds at 80.2 per 100,000 population (compared with 43.6 for 13–24 years, 56.2 for 35–44 years, 37.5 for 44–54 years, and 10.2 for those 55 and older). Similar patterns were seen for women with the highest rate by race/ethnic grouping of 22.4 per 100,000 for Black/African Americans (compared with 4.5 for Hispanic/Latino, 1.9 for Whites, and .9 for Asians) and with the highest rate by age grouping of 8.3 for 25–34 year olds (compared with 4.2 for 13–24 years, 5.8 for 35–44 years, and 6.1 for 55 or older)

According to the Los Angeles County Department of Public Health Acute Communicable Disease Control, new cases of hepatitis A in Los Angeles County numbered 33 in 2015, with an annual incidence rate of 0.34 per 100,000 population; this was a decrease from rates of 0.44 in 2014 and 0.64 in 2013. Note that the incidence rate for California for 2015 was 0.46 and for the United States 0.43. Two new cases of (acute) hepatitis C (rate of 0.02) were reported in 2015 in Los Angeles County, which was a decline from 5 cases in 2014. The rate of hepatitis C for California was 0.15 and for the United States was 0.76.

The California Department of Health reported high rates of sexually transmitted diseases for the state and for Los Angeles County in 2015. Los Angeles experienced incidence rates of 560.6 per 100,000 population for chlamydia in 2015, 172.8 for gonorrhea, and 18.3 for early latent syphilis, continuing the several-year increasing trends in numbers of cases across genders, race/ethnic, and age groups.

Legislative and Policy Updates

In 2016, California voters passed an amendment legalizing recreational use of marijuana. The new legislation legalizes possession and use of up to one ounce of marijuana (or 8 grams of concentrates) and personal use cultivation of up to six plants per residence by adults 21 and older. In addition, it establishes a licensed regulation system for commercial production and sale of adult use cannabis and levies a production tax of \$9.25/ounce of flowers plus an additional 15% excise tax on retail sales of marijuana both adult-use and medical, effective January 1, 2018. Counties and cities continue local decisions about whether, where, and under what conditions to allow dispensaries for medical; and hearings are underway on regulations for retailers, distributors, labs, and cultivation.

Data Sources

Data for this report were drawn from the following sources:

Data for admissions to substance abuse treatment are reported from the California Outcomes Monitoring System (CalOMS) for Los Angeles County for 2016 and earlier years for comparison (compiled by the California Department of Health Care Services, Mental Health Services Division, Office of Applied Research and Analysis; 2016 data from 2/14/17). Data include all admissions to programs in Los Angeles County receiving any public funding and all admissions to programs providing narcotic replacement therapy (whether or not the program receives public funding). The total number of admissions for Los Angeles County has experienced a continuing decline from 48,762 in 2010 to 26,446 in 2016. Decreases in annual admissions have occurred statewide and are a result of factors such as reductions in certain state funding and changes in the overall service delivery system.

Drug prices and trafficking data were derived from U.S. Department of Justice sources. Prices were reported by the Los Angeles County Regional Criminal Information Clearinghouse (LA CLEAR) for first quarter 2017 and for fourth quarter 2015 for comparison. The prices included in these reports reflect the best estimates of the analysts in the Research and Analysis Unit at LA CLEAR and reported in National Drug Intelligence Center (NDIC) publications. Price estimates are based primarily on field reports, interviews with law enforcement agencies throughout the Los Angeles High Intensity Drug Trafficking Area (HIDTA), and postseizure analysis.

Drugs detected in Los Angeles County Medical Examiner toxicology cases were extracted from data provided by the Los Angeles County Medical Examiner's office for calendar year 2016 (data provided 2/22/2017) with reference to earlier years from the same source. Because confirmed results were not available in the data set for methamphetamine, amphetamine, MDMA, and MDA for 2016, we have estimated frequencies for these drugs from supplemental (communication 7/20/17) aggregate reports of number of tests sent for confirmation of which about 75% were expected to be positive and 96% were expected (from historical results) to include methamphetamine. The total number of cases (for use in computing percentages of cases with each specific type of drug) was also an estimate based on number of cases in the primary data set plus the estimated number of cases represented by the aggregate number of confirmatory tests adjusting for overlap because of multiple drugs within cases (based on historical data). [Further details of estimation available from the author.] Thus, we urge caution in interpreting 2016 results. Frequencies and percentages reflect cases for which toxicology tests were conducted with a drug detected (i.e., not just drug-related deaths). Each case may have more than one drug detected; therefore, percentages should not be summed across drug categories. Note that heroin and morphine and their metabolites were not distinguished into separate categories. Emerging synthetic drugs typically were not included in routine toxicology testing. For reporting purposes, we have combined narcotic analgesics and narcotic-like analgesics (other than heroin/morphine) into one category; these include codeine, hydrocodone, hydromorphone, oxycodone, oxymorphone, methadone, fentanyl, other narcotics, and tramadol.

Poison Control calls were summarized for Los Angeles County from data from the California Poison Control Center for calendar year 2016 (data extracted as of 2/20/2017). References to prior years are from the same source. Drug mentions are included for cases (calls) that reported illicit drugs or cases for which the reason for the call was labeled as “intentional/suspected suicide, misuse, abuse, unknown,” “contamination/tampering,” or “malicious.”

Youth substance use was reported from the **California Healthy Kids Survey** (CHKS; reports available online for 2014–2015 and earlier periods) for Los Angeles Unified School District, the largest school district in Los Angeles County and representing about 42% of the public school students in Los Angeles County. A county-wide aggregate report was not available for the most recent period (2014–2015). An additional source of secondary school youth substance use was the **CDC Youth Risk Behavior Surveillance System**, accessed using the online system 7/27/17.

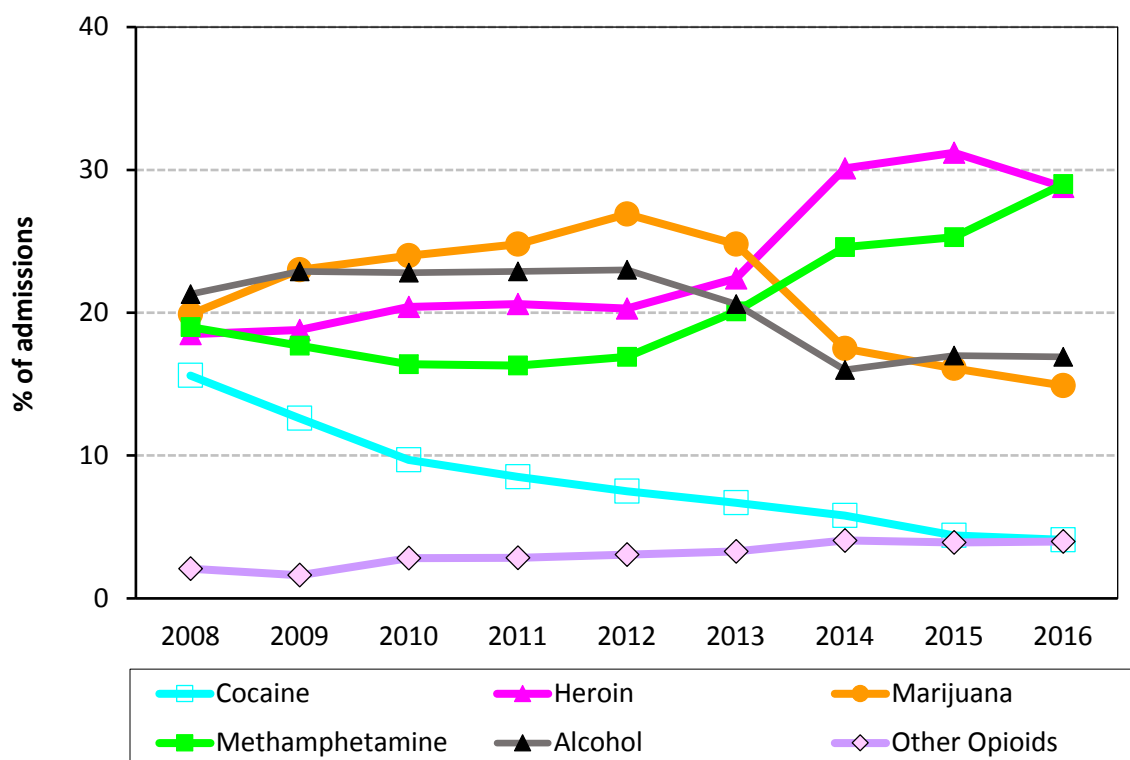
Human immunodeficiency virus (HIV) diagnosis data were obtained from the Centers for Disease Control *HIV Surveillance Report Vol. 22 No. 1, Diagnosed HIV Infection among Adult and Adolescents in Metropolitan Statistical Areas in the United States and Puerto Rico, 2015* (and for 2014 for comparison). Hepatitis data for 2015 were from the Los Angeles County Department of Health Services, Acute Communicable Disease Control Program, *Annual Morbidity Report 2015*. Data on sexually transmitted diseases were from the CA Department of Health *Local Health Jurisdiction STD Data Summaries, California, 2015*

The author wishes to thank individuals and agencies that have provided data, statistics, and information, including (but not limited to) California Department of Health Services, Mental Health Services, Division, Office of Applied Research & Analysis; S. Jutila (Los Angeles Criminal Information Clearinghouse [LA Clear]); O. Brown (Los Angeles County Medical Examiner’s office); and T. Carlson (California Poison Control Center).

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Exhibits

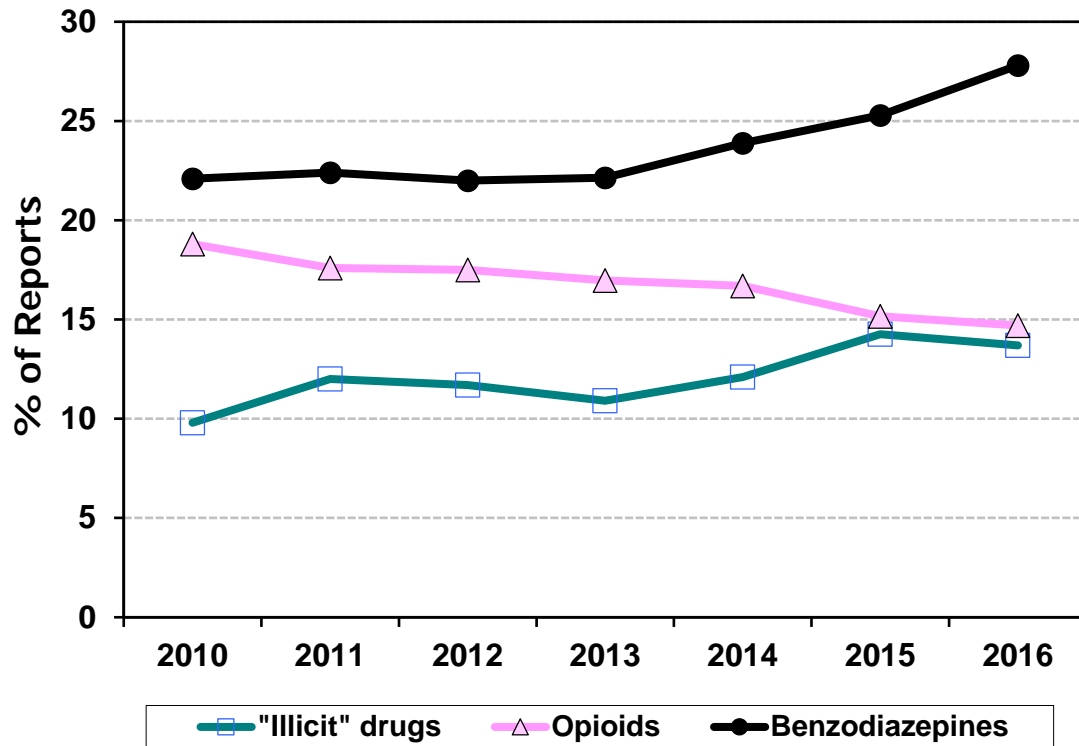
Exhibit 1. Percentage of Admissions to Substance Use Treatment for Selected Major Substances (Primary Drug for Admission), Los Angeles County, 2008–2016¹



¹Data include all admissions to programs in Los Angeles County receiving any public funding and all admissions to programs providing narcotic replacement therapy (whether or not the program receives public funding). Number of admissions in 2016 $N = 30,083$, in 2008 $N = 55,530$.

Source: California Department of Health Care Services, Mental Health Services Division, Office of Applied Research and Analysis.

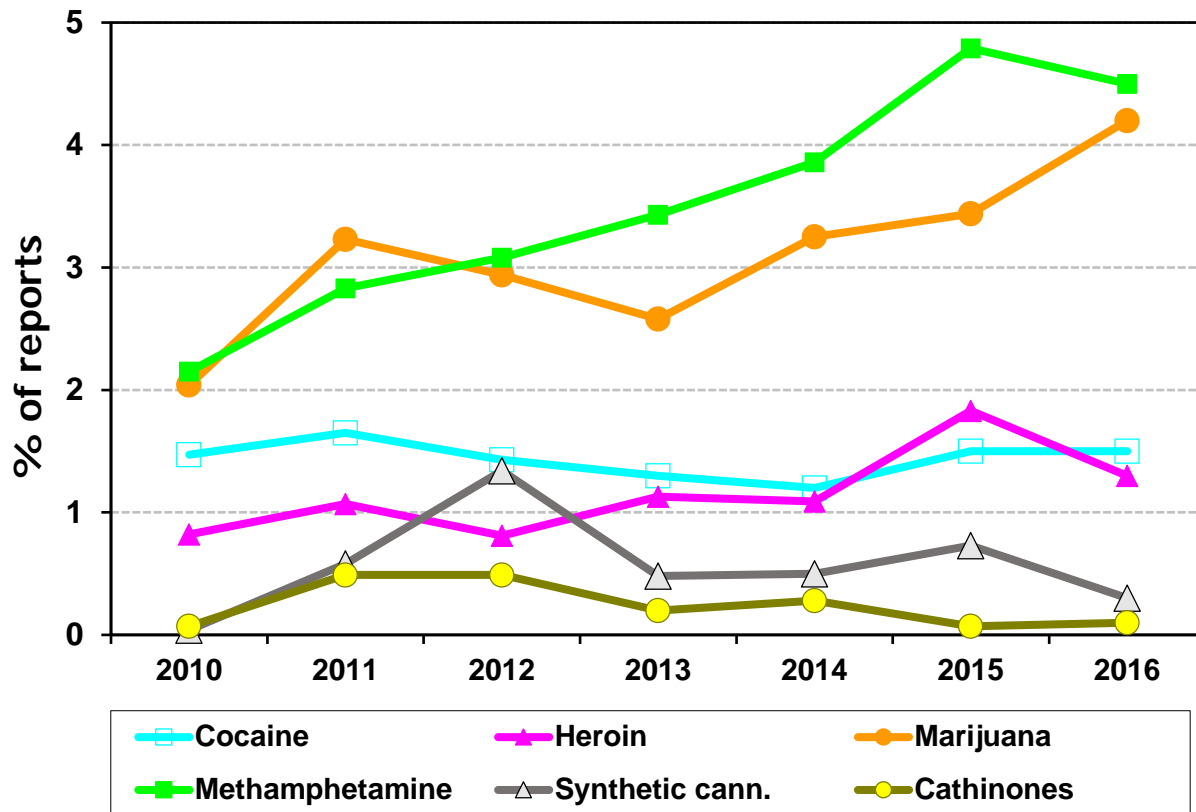
Exhibit 2. Percentage of Reports to California Poison Control Center for Selected Drug Categories, Los Angeles County, 2010–2016



Notes: a) reports for cases with “intentional/suspected suicide, misuse, abuse, unknown,” “contamination/tampering,” or “malicious” reason for exposure; b) illicit drugs include heroin, marijuana, cocaine/crack, methamphetamine, PCP, LSD, MDMA, GHB, piperazines, tryptamines, Rohypnol, cannabamimetics, and cathinones (see exhibit 3 for selected illicit drugs); and c) opioid category includes opioids other than heroin.

Source: California Poison Control System 2016 data, $N = 4,014$ total drug reports.

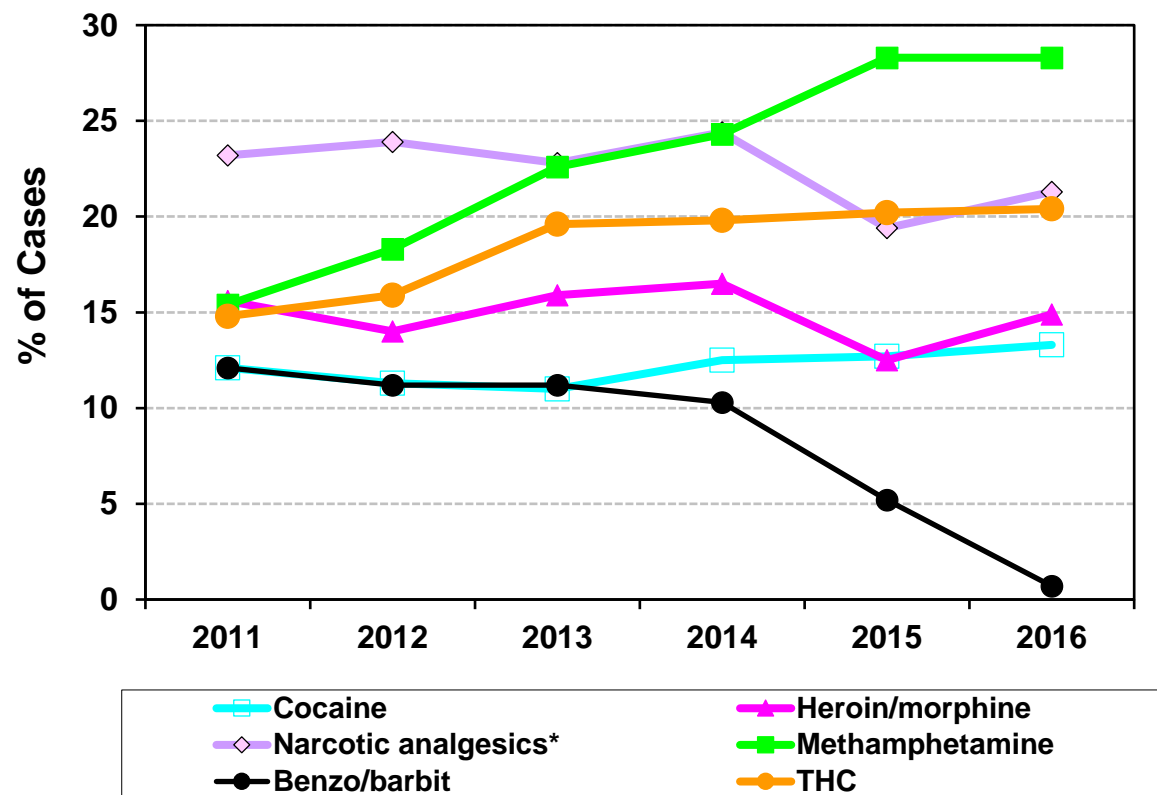
Exhibit 3. Percentage of Reports to California Poison Control Center for Selected “Illicit” Drugs, Los Angeles County, 2010–2016¹



¹Reports for illicit drugs or for cases (for other drugs) with “intentional/suspected suicide, misuse, abuse, unknown,” “contamination/tampering,” or “malicious” reasons.

Source: California Poison Control System (2/20/17) 2016 data, *N* = 4,014 total drug reports.

Exhibit 4. Percentage of Medical Examiner Toxicology Cases with Drugs Detected, Los Angeles County, 2010–2016



*narc. analgesics and narc-like analgesics (other than heroin/morphine) include codeine, hydrocodone, hydromorphone, oxycodone, oxymorphone, methadone, fentanyl, other narcotics, and tramadol.

Number of toxicology cases: 2011 *N* = 2,866, 2012 *N* = 3,068, 2013 *N* = 3,109, 2014 *N* = 3,038, 2015 *N* = 3,024, 2016 *N* = 3,031 (2016 total was estimated, see data source notes).

Source: Data for analysis from Los Angeles County Medical Examiner 4/4/17 and supplemental methamphetamine data 7/20/17.

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.

Table 1: Demographic and Socioeconomic Characteristics*Los Angeles County, California*

2011–2015 ACS 5-Year Estimates

	Estimate	Margin of Error
Total Population (#)	10,038,388	**
Age		
18 years and over (%)	76.9%	**
21 years and over (%)	72.4%	+/-0.1
65 years and over (%)	11.9%	**
Median Age (years)	35.6	+/-0.1
Race (%)		
White, Not Hisp.	26.9%	+/-0.1
Black/African American, Not Hisp.	8.0%	+/-0.1
Hispanic/Latino (of any race)	48.2%	**
American Indian/Alaska Native, Not Hisp.	0.2%	+/-0.1
Asian, Not Hisp.	14.0%	+/-0.1
Native Hawaiian/Pacific Islander, Not Hisp.	0.2%	+/-0.1
Some Other Race	0.3%	+/-0.1
Two or More Races	2.2%	+/-0.1
Sex (%)		
Male	49.3%	**
Female	50.7%	**
Educational Attainment (Among Population Aged 25+ Years) (%)		
High School Graduate or Higher	77.3%	+/-0.1
Bachelor's Degree or Higher	30.3%	+/-0.1
Unemployment (Among Civilian Labor Force Population Aged 16+ Years) (%)		
Unemployment Rate	10.0%	+/-0.1
Income (\$)		
Median Household Income (in 2015 inflation-adjusted dollars)	\$56,196	+/-270
Health Insurance Coverage (Among Civilian Noninstitutionalized Population) (%)		
No Health Insurance Coverage	18.4%	+/-0.1
Poverty (%)		
All People Whose Income in Past 12 Months Is Below Poverty Level	18.2%	+/-0.1

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 Los Angeles[^], 2012–2014
 Estimated Percent, 95% Confidence Interval, and Estimated Number*
 Annual Averages Based on Combined 2012 to 2014 NSDUH Data

Substance Use Behaviors	Substate Region: Los Angeles [^]	
	Estimated % (95% CI)*	Estimated #*
Used in Past Month		
Alcohol	47.64 (45.55 – 49.73)	3,976,548
Binge Alcohol**	21.76 (20.32 – 23.27)	1,816,788
Marijuana	8.44 (7.55 – 9.43)	704,921
Use of Illicit Drug Other Than Marijuana	4.02 (3.44 – 4.69)	335,308
Used in Past Year		
Cocaine	2.17 (1.77 – 2.65)	180,827
Nonmedical Use of Pain Relievers	4.72 (4.15 – 5.35)	393,692
Substance Use Disorders in Past Year***		
Illicit Drugs or Alcohol	8.42 (7.68 – 9.22)	702,746
Alcohol	6.90 (6.21 – 7.67)	576,254
Illicit Drugs	2.78 (2.43 – 3.19)	232,426

NOTES:

[^]**Los Angeles:** NSDUH Substate Region 11 which comprises Los Angeles County.

***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 (8,347,839) 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 *Los Angeles*,^ 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	Substate Region: Los Angeles ^					
	12–17		18–25		26+	
	Estimated Percent (95% CI)*		Estimated Percent (95% CI)*		Estimated Percent (95% CI)*	
Used in Past Month						
Binge Alcohol**	6.27	(5.39 – 7.28)	34.73	(32.17 – 37.38)	21.27	(19.58 – 23.07)
Marijuana	8.04	(6.95 – 9.29)	19.95	(18.02 – 22.03)	6.34	(5.36 – 7.49)
Use of Illicit Drug Other Than Marijuana	3.76	(3.07 – 4.59)	6.26	(5.23 – 7.49)	3.63	(2.96 – 4.44)
Used in Past Year						
Cocaine	0.92	(0.64 – 1.32)	5.96	(4.86 – 7.28)	1.61	(1.20 – 2.17)
Nonmedical Use of Pain Relievers	4.70	(3.88 – 5.70)	8.34	(7.26 – 9.56)	4.04	(3.40 – 4.80)
Substance Use Disorder in Past Year***						
Illicit Drugs or Alcohol	5.88	(5.03 – 6.87)	18.01	(16.20 – 19.98)	6.94	(6.11 – 7.87)
Alcohol	2.96	(2.38 – 3.67)	13.19	(11.66 – 14.90)	6.22	(5.42 – 7.12)
Illicit Drugs	4.17	(3.44 – 5.05)	8.02	(6.86 – 9.36)	1.63	(1.28 – 2.07)

NOTES:

^**Los Angeles:** NSDUH Substate Region 11 which comprises Los Angeles County.

***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 Behaviors Among Los Angeles ^ 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)	p value	Male Estimate (95% CI)	Female Estimate (95% CI)	p value	White Estimate (95% CI)	Black Estimate (95% CI)	Hispanic Estimate (95% CI)	Asian Estimate (95% CI)
Used in Past Month										
Alcohol	21.7 (18.0 - 26.0)	27.6 (24.4 - 31.1)	0.02	20.0 (14.6 - 26.7)	23.4 (20.4 - 26.6)	0.18	28.1 (18.5 - 40.2)	16.1 (11.4 - 22.2)	22.4 (18.6 - 26.7)	12.8 (7.8 - 20.1)
Binge Alcohol**	10.2 (8.0 - 12.9)	13.3 (11.2 - 15.7)	0.06	9.7 (6.5 - 14.3)	10.6 (8.2 - 13.5)	0.70	11.8 (6.2 - 21.3)	2.3 (1.0 - 5.0)	11.2 (8.7 - 14.3)	3.8 (2.3 - 6.4)
Marijuana	16.6 (14.1 - 19.4)	20.3 (16.1 - 25.3)	0.14	17.4 (13.5 - 21.9)	15.9 (12.4 - 20.1)	0.63	18.2 (11.4 - 27.9)	22.8 (18.1 - 28.3)	15.8 (13.1 - 18.9)	9.8 (6.8 - 14.1)
Ever Used in Lifetime										
Alcohol	53.0 (47.8 - 58.2)	59.9 (56.4 - 63.4)	0.03	50.2 (44.0 - 56.4)	55.7 (50.7 - 60.6)	0.00	55.5 (43.7 - 66.7)	50.1 (40.2 - 60.0)	55.0 (49.0 - 60.8)	30.6 (23.8 - 38.4)
Marijuana	34.7 (30.5 - 39.2)	39.3 (34.2 - 44.7)	0.16	32.7 (27.8 - 38.1)	36.5 (31.6 - 41.8)	0.15	28.5 (18.7 - 40.9)	43.4 (35.2 - 52.0)	35.6 (30.8 - 40.6)	14.2 (9.8 - 20.3)
Cocaine	5.0 (3.9 - 6.5)	6.5 (5.3 - 7.8)	0.10	5.8 (4.5 - 7.5)	4.2 (2.8 - 6.3)	0.11	4.4 (2.1 - 8.7)	4.0 (1.2 - 12.5)	5.2 (3.9 - 6.8)	2.3 (0.5 - 10.2)
Hallucinogenic Drugs	—	—	~	—	—	~	—	—	—	—
Synthetic Marijuana	6.5 (5.5 - 7.7)	—	~	6.4 (4.9 - 8.2)	6.4 (5.1 - 8.1)	0.96	8.8 (4.5 - 16.6)	4.8 (2.1 - 10.3)	6.3 (5.6 - 7.0)	6.7 (3.3 - 13.0)
Inhalants	7.2 (6.0 - 8.6)	10.5 (8.7 - 12.7)	0.00	6.4 (4.9 - 8.3)	8.0 (6.0 - 10.5)	0.29	6.9 (4.3 - 10.8)	7.8 (3.8 - 15.3)	7.6 (6.1 - 9.5)	4.2 (1.8 - 9.3)
Ecstasy also called "MDMA"	4.5 (3.3 - 6.2)	10.9 (8.5 - 13.8)	0.00	5.1 (3.9 - 6.5)	3.9 (2.4 - 6.2)	0.14	9.1 (6.3 - 13.2)	2.3 (0.7 - 7.9)	4.1 (3.1 - 5.5)	1.4 (0.4 - 5.0)
Heroin	2.0 (1.1 - 3.7)	3.0 (2.1 - 4.3)	0.23	2.8 (1.4 - 5.5)	1.1 (0.6 - 2.1)	0.02	5.1 (2.3 - 10.8)	2.8 (0.8 - 9.0)	1.3 (0.7 - 2.4)	2.3 (0.5 - 10.1)
Methamphetamine	3.4 (2.1 - 5.5)	5.1 (3.6 - 7.3)	0.14	4.6 (2.9 - 7.3)	2.2 (1.1 - 4.1)	0.00	7.4 (3.9 - 13.7)	3.2 (1.1 - 9.5)	2.9 (1.7 - 4.8)	3.4 (0.9 - 11.9)
Rx Drugs without a Doctor's Prescription	9.5 (7.8 - 11.6)	10.6 (8.1 - 13.8)	0.50	10.7 (8.7 - 13.2)	8.4 (6.5 - 10.8)	0.03	11.7 (6.7 - 19.6)	12.1 (8.5 - 16.9)	8.7 (7.0 - 10.7)	9.4 (5.6 - 15.6)
Injected Any Illegal Drug	1.9 (1.2 - 3.2)	2.1 (1.4 - 3.2)	0.83	2.6 (1.4 - 4.7)	1.3 (0.7 - 2.2)	0.08	2.9 (1.1 - 7.7)	3.9 (1.4 - 10.0)	1.3 (0.7 - 2.5)	4.4 (2.0 - 9.7)

NOTES:

^**Los Angeles:** Weighted data were available for Los Angeles 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 1,619 with an overall response rate of 84%; the 2015 sample size was 2,336 with an 81% 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 [7/5/2016].

Table 4a: Trends in Admissions* to Programs Treating Substance Use Disorders, Los Angeles County, 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	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	45,612	100%	39,790	100%	32,826	100%	30,083	100%	26,446	100%
Primary Substance of Abuse (%)										
Alcohol	10,496	23.0%	8,216	20.6%	5,253	16.0%	5,103	17.0%	4,474	16.9%
Cocaine/Crack	3,416	7.5%	2,654	6.7%	1,909	5.8%	1,332	4.4%	1,086	4.1%
Heroin	9,256	20.3%	8,900	22.4%	9,866	30.1%	9,392	31.2%	7,626	28.8%
Prescription Opioids**	1,402	3.1%	1,307	3.3%	1,331	4.1%	1,189	4.0%	1,056	4.0%
Methamphetamine	7,710	16.9%	8,012	20.1%	8,070	24.6%	7,626	25.3%	7,659	29.0%
Marijuana	12,256	26.9%	9,851	24.8%	5,752	17.5%	4,835	16.1%	3,943	14.9%
Benzodiazepines	199	0.4%	199	0.5%	139	0.4%	148	0.5%	188	0.7%
MDMA	83	0.2%	57	0.1%	27	<0.1%	27	<0.1%	31	0.1%
Synthetic Stimulants	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Other Drugs/Unknown	794	1.7%	594	1.5%	479	1.5%	431	1.4%	383	1.4%

NOTES:

***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; 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."

unavail: Data not available.

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).

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

	Primary Substance																	
	Alcohol		Cocaine/Crack		Heroin		Prescription Opioids**		Methamphetamine		Marijuana		Benzo-diazepines		Synthetic Stimulants		Synthetic Cannabinoids	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Number of Admissions (#)	4,474	100%	1,086	100%	7,626	100%	1,056	100%	7,659	100%	3,943	100%	188	100%	unavail	unavail	unavail	unavail
Sex (%)																		
Male	2,712	60.6%	685	63.1%	5,457	71.6%	563	53.3%	4,106	53.6%	2,590	65.7%	104	55.3%	unavail	unavail	unavail	unavail
Female	1,761	39.4%	399	36.7%	2,163	28.4%	493	46.7%	3,543	46.3%	1,352	34.3%	84	44.7%	unavail	unavail	unavail	unavail
Race/Ethnicity (%)																		
White, Non-Hisp.	1,569	35.1%	111	10.2%	3,832	50.2%	571	54.1%	1,729	22.6%	406	10.3%	unavail	unavail	unavail	unavail	unavail	unavail
African-Am/Black, Non-Hisp	763	17.1%	677	62.3%	469	6.2%	118	11.2%	650	8.5%	985	25.0%	unavail	unavail	unavail	unavail	unavail	unavail
Hispanic/Latino	1,927	43.1%	251	23.1%	2,901	38.0%	313	29.6%	4,876	63.7%	2,375	60.2%	unavail	unavail	unavail	unavail	unavail	unavail
Asian	62	1.4%	17	1.6%	124	1.6%	17	1.6%	186	2.4%	51	1.3%	unavail	unavail	unavail	unavail	unavail	unavail
Other	153	3.4%	30	2.8%	300	3.9%	37	3.5%	218	2.8%	126	3.2%	unavail	unavail	unavail	unavail	unavail	unavail
Age Group (%)																		
Under 18	141	3.2%	15	1.4%	24	0.3%	10	0.9%	222	2.9%	1,686	42.8%	28	14.9%	unavail	unavail	unavail	unavail
18-25	519	11.6%	88	8.1%	1,283	16.8%	93	8.8%	1,701	22.2%	935	23.7%	51	27.1%	unavail	unavail	unavail	unavail
26-45	2,238	50.0%	398	36.6%	3,737	49.0%	570	54.0%	4,897	63.9%	1,127	28.6%	60	31.9%	unavail	unavail	unavail	unavail
46+	1,576	35.2%	585	53.9%	2,582	33.9%	383	36.3%	839	11.0%	195	4.9%	49	26.1%	unavail	unavail	unavail	unavail
Route of Administration (%)																		
Smoked	0	0.0%	810	74.6%	1,572	20.6%	23	2.2%	5,835	76.2%	3,863	98.0%	3	1.6%	unavail	unavail	unavail	unavail
Inhaled	0	0.0%	224	20.6%	251	3.3%	19	1.8%	847	11.1%	7	0.2%	0	0.0%	unavail	unavail	unavail	unavail
Injected	0	0.0%	8	0.7%	5,650	74.1%	17	1.6%	744	9.7%	1	<0.1%	2	1.1%	unavail	unavail	unavail	unavail
Oral/Other/Unknown	4,474	100.0%	44	4.1%	153	2.0%	997	94.4%	233	3.0%	72	1.8%	183	97.3%	unavail	unavail	unavail	unavail
Secondary Substance (%)																		
None	2,407	53.8%	391	36.0%	3,696	48.5%	554	52.5%	3,285	42.9%	1,904	48.3%	54	28.7%	unavail	unavail	unavail	unavail
Alcohol	0	0.0%	327	30.1%	418	5.5%	69	6.5%	1,540	20.1%	1,040	26.4%	31	16.5%	unavail	unavail	unavail	unavail
Cocaine/Crack	285	6.4%	0	0.0%	431	5.7%	39	3.7%	248	3.2%	137	3.5%	10	5.3%	unavail	unavail	unavail	unavail
Heroin	47	1.1%	28	2.6%	0	0.0%	47	4.5%	264	3.4%	18	0.5%	5	2.7%	unavail	unavail	unavail	unavail
Prescription Opioids**	90	2.0%	11	1.0%	304	4.0%	30	2.8%	60	0.8%	25	0.6%	38	20.2%	unavail	unavail	unavail	unavail
Methamphetamine	685	15.3%	89	8.2%	1,941	25.5%	62	5.9%	0	0.0%	639	16.2%	14	7.4%	unavail	unavail	unavail	unavail
Marijuana	754	16.9%	212	19.5%	433	5.7%	75	7.1%	2,077	27.1%	0	0.0%	27	14.4%	unavail	unavail	unavail	unavail
Benzodiazepines	109	2.4%	8	0.7%	218	2.9%	95	9.0%	52	0.7%	49	1.2%	0	0.0%	unavail	unavail	unavail	unavail
Synthetic Stimulants (NA)	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Cannabinoids (NA)	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail

NOTES:

***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; 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." Admissions with one opioid subcategory as primary drug could have had the other subcategory as secondary.

unavail: Data not available; **Percentages** may not sum to 100 due to either rounding, missing data 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 Los Angeles NDEWS SCE by the California Department of Health Care Services, Mental Health Services Division, Office of Applied Research and Analysis, CalOMS.

Table 5: Drug Poisoning Deaths*, by Drug and Year, Los Angeles ^, 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
Drug Poisoning Deaths	684	6.9	6.7	682	6.8	6.6	815	8.1	7.8	735	7.3	6.9	732	7.2	6.9
Opioids[‡]	249	2.5	2.4	239	2.4	2.3	299	3.0	2.8	291	2.9	2.7	288	2.8	2.7
Heroin	141	1.4	1.4	112	1.1	1.1	156	1.6	1.5	131	1.3	1.2	126	1.2	1.2
Natural Opioid Analgesics	161	1.6	1.5	130	1.3	1.3	174	1.7	1.6	166	1.6	1.5	168	1.7	1.6
Methadone	19	UNR	UNR	35	0.4	0.3	37	0.4	0.3	32	0.3	0.3	26	0.3	0.2
Synthetic Opioid Analgesics	11	UNR	UNR	10	UNR	UNR	18	UNR	UNR	24	0.2	0.2	20	0.2	0.2
Benzodiazepines	20	0.2	0.2	21	0.2	0.2	35	0.3	0.3	46	0.5	0.5	44	0.4	0.4
Benzodiazepines AND Any Opioids	SUP	SUP	SUP	16	UNR	UNR	19	UNR	UNR	37	0.4	0.4	30	0.3	0.3
Benzodiazepines AND Heroin	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	10	UNR	UNR	SUP	SUP	SUP
Psychostimulants															
Cocaine	60	0.6	0.6	51	0.5	0.5	73	0.7	0.7	81	0.8	0.8	92	0.9	0.9
Psychostimulants with Abuse Potential	88	0.9	0.9	114	1.1	1.1	160	1.6	1.5	161	1.6	1.5	213	2.1	2.0
Cannabis (derivatives)	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP	SUP
Percent with Drugs Specified[‡]	61.7%			60.1%			69.1%			70.9%			78.1%		

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.

^Los Angeles: Comprised of Los Angeles County.

*****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 Los Angeles County 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* (%)
Total Drug Reports	27,672	100.0%
METHAMPHETAMINE	11,369	41.1%
CANNABIS	7,177	25.9%
COCAINE	3,445	12.4%
HEROIN	1,969	7.1%
ALPRAZOLAM	709	2.6%
3,4-METHYLENEDIOXYMETHAMPHETAMINE (MDMA)	325	1.2%
3,4-METHYLENEDIOXYAMPHETAMINE (MDA)	245	0.9%
NEGATIVE RESULTS - TESTED FOR SPECIFIC DRUGS	235	0.8%
NO CONTROLLED DRUG IDENTIFIED	220	0.8%
PHENCYCLIDINE	191	0.7%
HYDROCODONE	161	0.6%
OXYCODONE	111	0.4%
TRAMADOL	77	0.3%
AMPHETAMINE	73	0.3%
PSILOCYBIN/PSILOCYN	68	0.2%
FENTANYL	66	0.2%
CARISOPRODOL	63	0.2%
CODEINE	56	0.2%
GAMMA HYDROXY BUTYL LACTONE	54	0.2%
CLONAZEPAM	52	0.2%
KETAMINE	49	0.2%
PHENYLIMIDOTHIAZOLE ISOMER UNDETERMINED	48	0.2%
LYSERGIC ACID DIETHYLAMIDE (LYSERGIDE)	38	0.1%
QUETIAPINE	36	0.1%
TESTOSTERONE	33	0.1%
METHADONE	27	< 0.1%
LORAZEPAM	25	< 0.1%
MORPHINE	25	< 0.1%
BUPRENORPHINE	23	< 0.1%
DIAZEPAM	22	< 0.1%
TRAZODONE	22	< 0.1%
GAMMA HYDROXY BUTYRATE	20	< 0.1%
IBUPROFEN	19	< 0.1%
PSILOCIN	19	< 0.1%
SILDENAFIL CITRATE (VIAGRA)	19	< 0.1%
ACETAMINOPHEN	18	< 0.1%
OPIUM	18	< 0.1%
CYCLOBENZAPRINE	15	< 0.1%
BUSPIRONE	14	< 0.1%
TADALAFIL	13	< 0.1%
ZOLPIDEM	13	< 0.1%
CATHINONE	12	< 0.1%
DIMETHYLSULFONE	12	< 0.1%
GABAPENTIN	12	< 0.1%
NAPROXEN	10	< 0.1%
CAFFEINE	9	< 0.1%
LACTOSE	9	< 0.1%
METHOCARBAMOL	9	< 0.1%
NOSCAPINE	9	< 0.1%
SYNTHETIC CANNABINOID	9	< 0.1%
3,4-METHYLENEDIOXYETHYL CATHINONE (ETHYLONE)	8	< 0.1%
DIPHENHYDRAMINE	8	< 0.1%
FUROSEMIDE	8	< 0.1%
OXYMETHOLONE	8	< 0.1%
TRENBOLONE	8	< 0.1%
BACLOFEN	7	< 0.1%
DIMETHYLTRYPTAMINE (DMT)	7	< 0.1%
METHYLPHENIDATE	7	< 0.1%
CONTROLLED SUBSTANCE	6	< 0.1%
HYDROMORPHONE	6	< 0.1%
LIDOCAINE	6	< 0.1%
N-METHYL-3,4-METHYLENEDIOXYCATHINONE (METHYLONE)	6	< 0.1%

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

Drug Identified	Number (#)	Percent of Total Drug Reports* (#)
PHTERMINE	6	< 0.1%
RISPERIDONE	6	< 0.1%
TEMAZEPAM	6	< 0.1%
AMLODIPINE	5	< 0.1%
ASPIRIN	5	< 0.1%
BUPROPION	5	< 0.1%
HYDROXYZINE	5	< 0.1%
MIRTAZAPINE	5	< 0.1%
NALOXONE	5	< 0.1%
OXANDROLONE	5	< 0.1%
SERTRALINE	5	< 0.1%
STANZOLOL	5	< 0.1%
AMITRIPTYLINE	4	< 0.1%
AMOXICILLIN	4	< 0.1%
BUTYLONE (β-KETO-N-METHYLBENZO-DIOXYLPROPYLAMINE)	4	< 0.1%
CEPHALEXIN	4	< 0.1%
DEXTROMETHORPHAN	4	< 0.1%
ESCITALOPRAM	4	< 0.1%
FLUOXETINE	4	< 0.1%
LISINOPRIL	4	< 0.1%
MELOXICAM	4	< 0.1%
METHORPHAN	4	< 0.1%
OMEPRAZOLE	4	< 0.1%
PAROXETINE	4	< 0.1%
PROPRANOLOL	4	< 0.1%
SULFAMETHOXAZOLE	4	< 0.1%
TRIMETHOPRIM	4	< 0.1%
1,4-BUTANEDIOL	3	< 0.1%
ATORVASTATIN	3	< 0.1%
BOLDENONE	3	< 0.1%
CANNABICHROMENE	3	< 0.1%
HYDROCHLOROTHIAZIDE	3	< 0.1%
MDMB-FUBINACA	3	< 0.1%
METHANDROSTENOLONE (METHANDIENONE)	3	< 0.1%
METHAQUALONE	3	< 0.1%
MODAFINIL	3	< 0.1%
OLANZAPINE	3	< 0.1%
PHENACETIN	3	< 0.1%
PROMETHAZINE	3	< 0.1%
STEROIDS	3	< 0.1%
SYNTHETIC ANTICHOLINERGICS	3	< 0.1%
TIZANIDINE	3	< 0.1%
1-PIPERIDINOCYCLOHEXANECARBONITRILE	2	< 0.1%
4-CHLOROMETHCATHINONE (4-CMC; CLEPHEDRONE)	2	< 0.1%
5-FLUORO AMB	2	< 0.1%
6-MONOACETYLMORPHINE	2	< 0.1%
ACYCLOVIR	2	< 0.1%
ANABOLIC STEROIDS	2	< 0.1%
ANASTROZOLE	2	< 0.1%
ARIPIRAZOLE	2	< 0.1%
ATENOLOL	2	< 0.1%
BENZOCAINE	2	< 0.1%
CANNABINOL	2	< 0.1%
CARBAMAZEPINE	2	< 0.1%
CITALOPRAM	2	< 0.1%
DROSTANOLONE	2	< 0.1%
KETOROLAC	2	< 0.1%
LAMOTRIGINE	2	< 0.1%
LEVETIRACETAM	2	< 0.1%
LITHIUM CARBONATE	2	< 0.1%
MECLIZINE	2	< 0.1%
METFORMIN	2	< 0.1%
METHENOLONE	2	< 0.1%
NORTESTOSTERONE DECANOATE	2	< 0.1%
NORTRIPTYLINE	2	< 0.1%

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

Drug Identified	Number (#)	Percent of Total Drug Reports* (#)
ORPHENADRINE	2	< 0.1%
OXCARBAZEPINE	2	< 0.1%
PHENYTOIN	2	< 0.1%
PREGABALIN	2	< 0.1%
RANITIDINE	2	< 0.1%
SOME OTHER SUBSTANCE	2	< 0.1%
SUCROSE	2	< 0.1%
TAMOXIFEN	2	< 0.1%
1-(3-TRIFLUOROMETHYL)PHENYL-PIPERAZINE (TFMPP)	1	< 0.1%
2-(4-BROMO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-B-NBOMe)	1	< 0.1%
3,4-METHYLENEDIOXY-N-ETHYLAMPHETAMINE (MDEA)	1	< 0.1%
4-BROMO-2,5-DIMETHOXYPHENETHYLAMINE (2C-B)	1	< 0.1%
5-FLUORO SDB-005	1	< 0.1%
AB-FUBINACA	1	< 0.1%
ACETAZOLAMIDE	1	< 0.1%
ACETYLFENTANYL	1	< 0.1%
ALBUTEROL	1	< 0.1%
AZITHROMYCIN	1	< 0.1%
BENAZEPRIL	1	< 0.1%
BUTALBITAL	1	< 0.1%
CANNABIDIOL	1	< 0.1%
CATHINE	1	< 0.1%
CELECOXIB	1	< 0.1%
CHLORDIAZEPOXIDE	1	< 0.1%
CIPROFLOXACIN	1	< 0.1%
CLINDAMYCIN	1	< 0.1%
CLOMIPHENE	1	< 0.1%
CLOMIPHENE CITRATE	1	< 0.1%
CLONIDINE	1	< 0.1%
DEHYDROCHLORMETHYLTESTOSTERONE	1	< 0.1%
DEXAMETHASONE	1	< 0.1%
DIACETAMIDE	1	< 0.1%
DICYCLOMINE	1	< 0.1%
DIETHYLPROPION	1	< 0.1%
DIPYRONE	1	< 0.1%
DIVALPROEX SODIUM	1	< 0.1%
DOXAZOSIN MESYLATE	1	< 0.1%
DOXYCYCLINE	1	< 0.1%
DRONABINOL	1	< 0.1%
DULOXETINE	1	< 0.1%
EFAVIRENZ	1	< 0.1%
ESTROGEN	1	< 0.1%
FAMOTIDINE	1	< 0.1%
FINASTERIDE	1	< 0.1%
FLUOXYMESTERONE	1	< 0.1%
FLURAZEPAM	1	< 0.1%
FUB-AMB	1	< 0.1%
GUANFACINE	1	< 0.1%
INSULIN	1	< 0.1%
LETROZOLE	1	< 0.1%
LISDEXAMFETAMINE	1	< 0.1%
LOSARTAN POTASSIUM	1	< 0.1%
LURASIDONE	1	< 0.1%
MELATONIN	1	< 0.1%
MEPIVACAINE	1	< 0.1%
MESTEROLONE	1	< 0.1%
METHASTERONE	1	< 0.1%
METOCLOPRAMIDE	1	< 0.1%
METRONIDAZOLE	1	< 0.1%
MONOACETYLMORPHINE	1	< 0.1%
NABUMETONE	1	< 0.1%
NALTREXONE	1	< 0.1%
NANDROLONE	1	< 0.1%
NIMETAZEPAM	1	< 0.1%

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

Drug Identified	Number (#)	Percent of Total Drug Reports* (#)
NITROGLYCERINE	1	< 0.1%
ONDANSETRON	1	< 0.1%
OXIRACETAM	1	< 0.1%
PENICILLIN	1	< 0.1%
PENTYLONE (β-KETO-METHYLBENZODIOXYLPENTANAMINE)	1	< 0.1%
PHENOBARBITAL	1	< 0.1%
PHENYLEPHRINE	1	< 0.1%
PHENYTOIN SODIUM	1	< 0.1%
PREDNISONE	1	< 0.1%
PROCAINE	1	< 0.1%
PROCHLORPERAZINE	1	< 0.1%
PROPOXYPHENE	1	< 0.1%
PROTONIX (PANTOPRAZOLE)	1	< 0.1%
PSEUDOEPHEDRINE	1	< 0.1%
PSILOCYBINE	1	< 0.1%
PYRILAMINE	1	< 0.1%
SOMATROPIN	1	< 0.1%
SUMATRIPTAN	1	< 0.1%
TAMSULOSIN	1	< 0.1%
TAPENTADOL	1	< 0.1%
TENAFOVIR DISOPROXIL	1	< 0.1%
THEBAINE	1	< 0.1%
TRIPROLIDINE	1	< 0.1%
VALSARTAN	1	< 0.1%
VARDENAFIL	1	< 0.1%
XLR-11 (1-(5-FLUOROPENTYL-1H-3-YL)(2,2,3,3-TETRAMETHYLCYCLOPROPYL)METHANONE)	1	< 0.1%
XYLAZINE	1	< 0.1%
ZIPRASIDONE	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 Los Angeles County 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 (%)
Total Drug Reports*	27,672	100.0%	100.0%
Opioids Category	2,564	100.0%	9.3%
Heroin	1,969	76.8%	7.1%
Narcotic Analgesics	573	22.3%	2.1%
HYDROCODONE	161	6.3%	0.6%
OXYCODONE	111	4.3%	0.4%
TRAMADOL	77	3.0%	0.3%
FENTANYL	66	2.6%	0.2%
CODEINE	56	2.2%	0.2%
METHADONE	27	1.1%	< 0.1%
MORPHINE	25	1.0%	< 0.1%
BUPRENORPHINE	23	0.9%	< 0.1%
OPIUM	18	0.7%	< 0.1%
HYDROMORPHONE	6	0.2%	< 0.1%
ACETYLFENTANYL	1	< 0.1%	< 0.1%
PROPOXYPHENE	1	< 0.1%	< 0.1%
THEBAINE	1	< 0.1%	< 0.1%
Narcotics	22	0.9%	< 0.1%
NOSCAPINE	9	0.4%	< 0.1%
NALOXONE	5	0.2%	< 0.1%
METHORPHAN	4	0.2%	< 0.1%
6-MONOACETYLMORPHINE	2	< 0.1%	< 0.1%
MONOACETYLMORPHINE	1	< 0.1%	< 0.1%
NALTREXONE	1	< 0.1%	< 0.1%
Synthetic Cathinones Category	21	100.0%	< 0.1%
Synthetic Cathinones	15	71.4%	< 0.1%
3,4-METHYLENEDIOXYETHYLCATHINONE (ETHYLONE)	8	38.1%	< 0.1%
BUTYLONE (ß-KETO-N-METHYLBENZO-DIOXYLPROPYLAMINE)	4	19.0%	< 0.1%
4-CHLOROMETHCATHINONE (4-CMC; CLEPHEDRONE)	2	9.5%	< 0.1%
PENTYLONE (ß-KETO-METHYLBENZODIOXYLYLPENTANAMINE)	1	4.8%	< 0.1%
Synthetic Cathinones (Hallucinogen)	6	28.6%	< 0.1%
N-METHYL-3,4-METHYLENEDIOXYCATHINONE (METHYLONE)	6	28.6%	< 0.1%
Synthetic Cannabinoids Category	18	100.0%	< 0.1%
SYNTHETIC CANNABINOID	9	50.0%	< 0.1%
MDMB-FUBINACA	3	16.7%	< 0.1%
5-FLUORO AMB	2	11.1%	< 0.1%
5-FLUORO SDB-005	1	5.6%	< 0.1%
AB-FUBINACA	1	5.6%	< 0.1%
FUB-AMB	1	5.6%	< 0.1%
XLR-11 (1-(5-FLUOROPENTYL-1H-3-YL)(2,2,3,3-TETRAMETHYLCYCLOPROPYL)METHANONE)	1	5.6%	< 0.1%
Tryptamines Category	7	100.0%	< 0.1%
DIMETHYLTRYPTAMINE (DMT)	7	100.0%	< 0.1%
Phenethylamines (2C Series) (H) Category	2	100.0%	< 0.1%
2-(4-BROMO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-B-NBOMe)	1	50.0%	< 0.1%
4-BROMO-2,5-DIMETHOXYPHENETHYLAMINE (2C-B)	1	50.0%	< 0.1%
Piperazines Category	1	100.0%	< 0.1%
Piperazines (Hallucinogen)	1	100.0%	< 0.1%
1-(3-TRIFLUOROMETHYL)PHENYL-PIPERAZINE (TFMPP)	1	100.0%	< 0.1%

**Table 6b (cont'd): Drug Reports* for Items Seized by Law Enforcement in Los Angeles County in 2016
DEA National Forensic Laboratory Information System (NFLIS)**

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.^a

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.^a

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: ^aAdapted 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.^a

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.^a

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.^a

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: ^aAdapted 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.^a 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.^a 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.^a 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.^a

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.^b 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.^b 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.^c 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.^d

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.^e

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:

^aBrener 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].

^bKann 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].

^cStark 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>

^dCDC. Health risk behaviors among adolescents who do and do not attend school—United States, 1992. MMWR 1994;43(08):129–32.

^eEaton 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.^a 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.^b

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:

^aNational Institute on Drug Abuse; National Institutes of Health; U.S. Department of Health and Human Services, *Assessing Drug Abuse Within and Across Communities, 2nd Edition*. 2006. Available at:

<https://www.drugabuse.gov/publications/assessing-drug-abuse-within-across-communities>

^bNational 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.¹ ([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)² and are identified by using the World Health Organization's (WHO's) *International classification of diseases, 10th Revision* (ICD-10)³ **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)^a 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-

^a 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](#))⁴

Warner et al.⁵ 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.⁵ 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*.”⁵ 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.⁵ 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*³ ([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*³

([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:

¹Center 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>

²Goldberger, 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.

³World 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>

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

⁵Warner, 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.^a

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.^a

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).^a 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.^a 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."^a

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.^a (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 Fentanyls 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: ^aAdapted 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>