## NDEWS National Drug Early Warning System

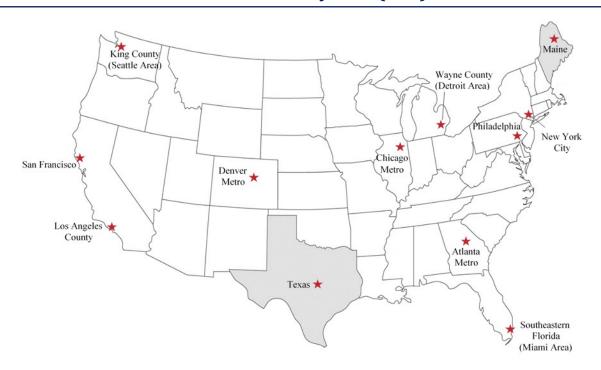
Funded at the Center for Substance Abuse Research by the National Institute on Drug Abuse

## Texas Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2016

October 2016

**NDEWS Coordinating Center** 

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## National Drug Early Warning System (NDEWS) Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2016

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.

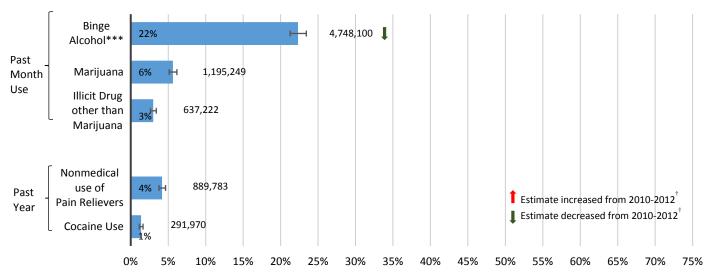
### **Texas SCS Snapshot, 2016**

#### **Substance Use**

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

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

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



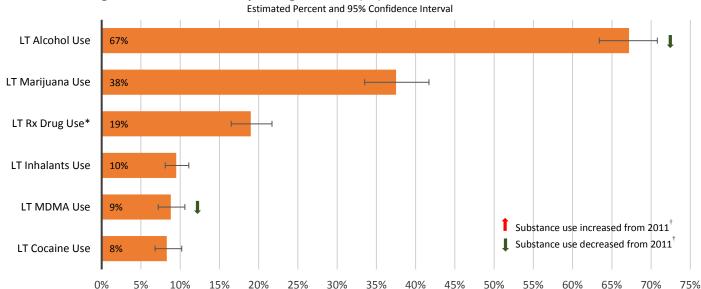
<sup>\*</sup>U.S. Population: U.S. civilian non-institutionalized population. \*\*Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (21,255,571) from Table C1 of the NSDUH Report. \*\*\*Binge Alcohol: Defined as drinking five or more drinks 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, Texas, 2013<sup>1</sup>



<sup>&</sup>lt;sup>1</sup>2013: 2015 YRBS data not available for Texas so 2013 YRBS data are presented.

Source: Adapted by the NDEWS Coordinating Center from data provided by CDC, 2001-2013 high school YRBS data.

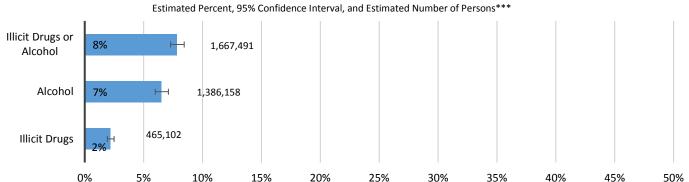
<sup>\*</sup>LT Rx Drug Use: Defined as ever took prescription drugs without a doctor's prescription.

<sup>†</sup>Statistically significant change: p<0.05 by t-test.

#### **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, Texas, 2012-2014

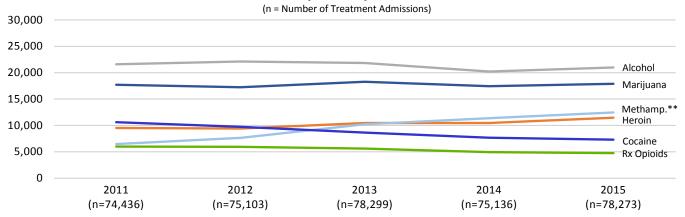


<sup>\*</sup>U.S. Population: U.S. civilian non-institutionalized population. \*\*Substance Use Disorders in Past Year: Persons are classified as having a substance use disorder in the past 12 months based on responses to questions that meet the criteria specified in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). \*\*\*Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (21,255,571) from Table C1 of the NSDUH Report.

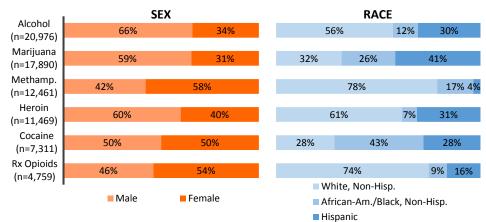
Source: Adapted by the NDEWS Coordinating Center from data provided by SAMHSA, NSDUH. Annual averages based on combined 2012 to 2014 NSDUH data.

#### Treatment Admissions Data from Local Sources

#### Trends in Treatment Admissions\*, by Primary Substance of Abuse, Texas, 2011-2015



#### Demographic Characteristics of Treatment Admissions\*, Texas, 2015



<sup>\*</sup>Treatment Admissions: Includes all admissions reported to the Clinical Management for Behavioral Health Services (CMBHS) of the Department of State Health Services (DSHS). \*\*Methamphetamine: Includes amphetamines and methamphetamine. 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.

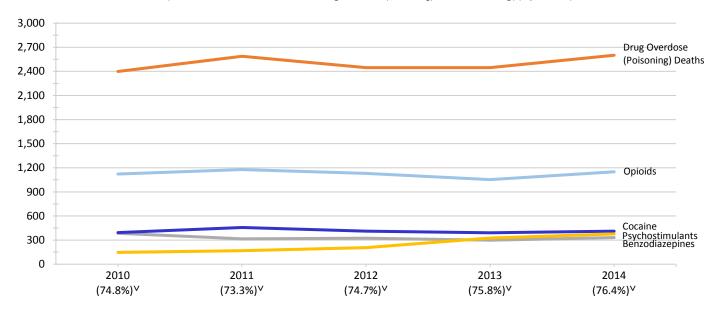
Source: Data provided by the Texas NDEWS SCE and the Texas Department of State Health Services (DSHS).

#### **Drug Overdose (Poisoning) Deaths**

#### National Vital Statistics System (NVSS) via CDC WONDER

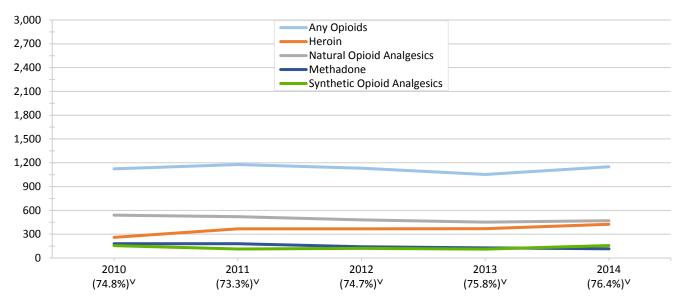
#### Trends in Drug Overdose (Poisoning) Deaths\*, by Drug\*\*, Texas, 2010–2014

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



#### Trends in Opioid Overdose (Poisoning) Deaths\*, by Opioid, Texas, 2010–2014

(Number of Deaths, by Drug\*\* and Percent of Drug Overdose (Poisoning) Deaths with Drug(s) SpecifiedV)



\*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). 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 1999-2014, available on the CDC WONDER Online Database, released 2015. Data compiled in the Multiple cause of death 1999-2014 were provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved between December 2015 - May 2016, from http://wonder.cdc.gov/mcd-icd10.html

#### **Law Enforcement Drug Seizures**

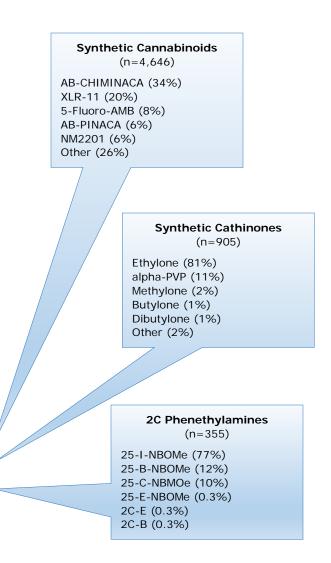
#### National Forensic Laboratory Information System (NFLIS)

### Drug Reports\* for Items Seized by Law Enforcement in Texas^ in 2015 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	99,720	100%
Top 10 Drug Reports		
Methamphetamine	32,290	32.4%
Cannabis	19,551	19.6%
Cocaine	18,466	18.5%
Heroin	3,947	4.0%
No Controlled Drug Specified	3,338	3.3%
Alprazolam	3,281	3.3%
Hydrocodone	1,584	1.6%
AB-CHMINACA	1,573	1.6%
Phenylimidothiazole Isomer Undetermined	1,118	1.1%
XLR-11	935	0.9%
Top 10 Total	86,083	86.3%
Selected Drugs/Drug Categories		
Opioids	7,491	7.5%
Fentanyl	43	<0.1%
Other Fentanyls***	14	<0.1%
Synthetic Cannabinoids	4,646	4.7%
Synthetic Cathinones	905	0.9%
2C Phenethylamines	355	0.4%
Piperazines	81	<0.1%
Tryptamines	40	<0.1%

Top 5 Drugs, by Selected Drug Category (% of Category)\*\*



<sup>\*</sup>Drug Reports: 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.

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 18, 2016.

<sup>^</sup>The Austin Police Department laboratory closed and no data were provided for 2015. The Houston Forensic Science Government Corporation (formerly Houston Police Department Crime Lab) lab was added in April 2014 and has been reporting data since then.

<sup>\*\*</sup>Percentages may not sum to 100 due to rounding. \*\*\*Other Fentanyls are substances that are structurally related to fentanyl (e.g., acetylfentanyl and butyrl fentanyl). See *Notes About Data Terms* in *Overview and Limitations* section for full list of Other Fentanyls that were reported to NFLIS during the January to December 2015 timeframe. See *Sentinel Community Site (SCS) Data Tables* and *Overview & Limitations* for more information regarding the data.

## 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:

- ♦ SCS Highlights
- ♦ Changes in Legislation
- ♦ Substance Use Patterns and Trends
- ♦ Local Research Highlights (if available)
- ♦ Infectious Diseases Related to Substance Use (if available)

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) Texas Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2016: SCE Narrative

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#### **Highlights**

- Methamphetamine indicators are higher than before the pseudoephedrine ban in 2007–2008. The DEA El Paso Intelligence Center (EPIC) reported seizures of methamphetamine increased by 37% between 2013 and 2015 and it is ranked as the #1 drug threat in the DEA Dallas area and #2 in Houston. The methamphetamine made in Mexico using the P2P process is increasingly pure and more potent with more reports by Texas outreach workers of use by men who have sex with men and high-risk heterosexuals with increases in HIV and syphilis. The HIV mode of exposure among men who have sex with men is at the same level in 2015 (70% of all cases) as it was in 1988 when data on mode of exposure were first collected in Texas.
- Cocaine indicators, which had been trending downward, are changing. Availability is high, but the source
  has been unstable as a result of cartel wars, with the amounts seized at the Texas–Mexico border down
  17% between 2013 and 2015. However, UNODC has reported an increase of almost 40% in the
  Colombian coca crop acreage between 2014 and 2015. The Houston DEA Field Division reported that the
  flow of cocaine appeared to be rising at the end of 2015. Street outreach workers reported increased
  popularity of powder cocaine.
- Heroin users are younger and less likely to be people of color. Indicators of deaths and poison center
  calls continued to rise, but seizures along the Texas–Mexico border decreased 10%. Nevertheless, the
  DEA reported Mexican opium production is increasing to sustain the increasingly high levels of demand
  in the United States.
- The **cannabis** situation has been influenced by both supply and demand. Supply from Mexico has decreased, with increases instead occurring in the use of home-grown and hydroponic methods and the availability of high-quality cannabis from Colorado. The demand for the drug has been influenced by changes in patterns of use with blunts and now electronic cigarettes and the "vaping" of hash oil and "shatter."

- Indicators for "other opioids", which excludes heroin but includes drugs such as methadone and codeine, are trending downward as a result of rescheduling of hydrocodone. Oxycodone is less of a problem than hydrocodone and it has remained stable, as have buprenorphine and methadone numbers. Oxycodone numbers are not as consistent in terms of trending, but its use is much lower than for hydrocodone. Fentanyl abuse and misuse in Texas traditionally involved the transdermal patches, but new rogue fentanyl powder began appearing in spring 2016. New synthetic opioids such as UR-47700 also began appearing.
- The novel psychoactive substances/synthetics situation is mixed, marked by sporadic clusters of overdoses, which may be a result of amateur chemists mixing the drugs or bad batches of precursor chemicals. The number of poison calls for synthetic cannabinoids and cathinones peaked in 2014. The chemical ingredients of cannabinoids have changed from JWH varieties to AB-CHMINACA and XLR-11. The number of phenethylamines identified continues to increase. The primary synthetic cathinone in 2015 was ethylone. There is a growing problem with PCP-like reactions to the synthetic drugs; the analog producing these reactions has not yet been identified.
- PCP remains as a problem. The number of PCP items identified by forensic labs peaked in 2014 at 1,052 and dropped to 766 in 2015, which may be because many individuals who needed hospital care had taken "K-2" OR "Spice" and they exhibited the classic PCP signs, but the forensic tests did not indicate the presence of PCP. Some N-BOMe analogs that have not been identified may be mimicking the PCP behaviors.
- **Benzodiazepine** indicators have remained fairly stable, but the number of deaths has increased. Alprazolam is the most abused benzodiazepine.

#### **Changes in Legislation**

Several changes to Texas laws in 2015 pertained to controlled substances. New substances were added to the penalty groups under the Controlled Substances Act, specifically Senate bills 172 and 173. Senate Bill 195 transferred prescription drug monitoring from the Texas Department of Public Safety to the Texas Board of Pharmacy, and it authorized the Board to enter into an interoperability agreement with one or more states. Senate Bill 195 eliminated the requirement to obtain a state-controlled substances registration. In lieu of a state registration, a person or firm is required to have a federal Drug Enforcement Administration (DEA) registration. Senate Bill 339, titled the "Texas Compassionate Use Act," allowed for the dispensing of low-THC (tetrahydrocannabinol) cannabis compounds for use in treating intractable epilepsy.

#### **Substance Use Patterns and Trends**

#### BENZODIAZEPINES

• Benzodiazepine indicators have remained fairly stable, but the number of deaths has increased. Alprazolam is the most abused benzodiazepine.

Benzodiazepines include diazepam (Valium®), alprazolam (Xanax®), flunitrazepam (Rohypnol®), clonazepam (Klonopin® or Rivotril®), flurazepam (Dalmane®), lorazepam (Ativan®), and chlordiazepoxide (Librium® and Librax®).

Exhibit 1. Benzodiazepines as Percent of All Items Identified by Tox Labs,

Number of Benzodiazepine Deaths, & Alprazolam Cases Admitted to Treatment: 1998-2015 8.0% 1,400 7.0% 1,200 6.0% # Deaths & Treatmer 1,000 Tox Lab Cases Alprazolam 5.0% 800 Diazepam 4.0% 600 Clonazepam 3.0% 400 Deaths 2.0% Alprazolam Tmt 200 1.0% 0.0% 2002 2003 2004 2005 2006 2007 2008 2010 2011 2012 2013 2013 Source: NFLIS & DSHS

Exhibit 1, with data retrieved from the National Forensic Laboratory Information System (NFLIS) and the Texas Poison Center Network, shows the most popular benzodiazepine items identified in forensic laboratories in Texas, as well as the number of deaths and number of treatment admissions for alprazolam. Alprazolam is the most abused benzodiazepine in terms of calls to poison control centers.

Counterfeit alprazolam from China and India was found by DEA in the Houston area in 2015. Diphenhydramine or etizolam had been put through pill presses to produce tablets that resembled alprazolam.

#### **COCAINE**

• Cocaine indicators, which had been trending downward, are changing. Availability is high, but the source has been unstable as a result of cartel wars, with the amounts seized at the Texas–Mexico border down 17% between 2013 and 2015. However, UNODC has reported an increase of almost 40% in the Colombian coca crop acreage between 2014 and 2015. The Houston DEA Field Division reported that the flow of cocaine appeared to be rising at the end of 2015. Street outreach workers reported increased popularity of powder cocaine.

Cocaine indicators are changing (Exhibit 2); outreach workers reported increased use of powdered cocaine among populations who think there is less stigma attached to inhaling powder rather than to smoking crack cocaine.

There has been a 17% decrease in kilograms of cocaine seized on the Texas–Mexico border from 2010 to 2015, according to the El Paso Intelligence Center (EPIC). Texas Poison Center Network abuse and misuse calls involving the use of cocaine peaked at 1,410 in 2006 and then declined to 504 in 2015 (Exhibit 2).

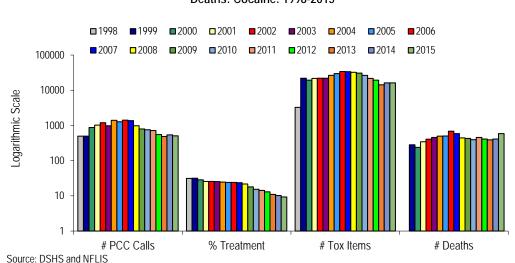


Exhibit 2. Texas Poison Control, Treatment Admissions, Tox Lab Exhibits, & Deaths: Cocaine: 1998-2015

Cocaine (both crack and powder) represented 9% of all admissions to DSHS-funded treatment programs in 2015, which is down from a high of 32% in 1999. In 2015, 70% of the powder cocaine treatment admissions inhaled the drug, 28% smoked it, and 6% injected it. Among those admitted for problems with crack cocaine, 98% smoked it.

A gram of powder cocaine costs between \$20 and \$100, and an ounce costs between \$300 and \$1,500. A rock of crack cocaine costs between \$10 and \$50, and an ounce costs between \$400 and \$1,000.

#### **MARIJUANA**

The cannabis situation has been influenced by both supply and demand. Supply from Mexico
has decreased, with increases instead occurring in the use of home-grown and hydroponic
methods and the availability of high-quality cannabis from Colorado. The demand for the drug
has been influenced by changes in patterns of use with blunts and now electronic cigarettes and
the "vaping" of hash oil and "shatter."

Cannabis indicators remained mixed (Exhibit 3), but there have been important changes in the source and methods of using the drug. Since 2012, supplies from Mexico have decreased as a result of a drought in Mexico, gang warfare, and increased border security, which resulted in a 46% decrease in kilograms seized in Texas, according to the U.S. El Paso Intelligence Center (EPIC). According to DEA field divisions, in the second half of 2015, DEA field divisions reported the drug was readily available and stable.

With the decrease in Mexican imports, there has been an increase in indoor and hydroponic growing in the state, and the National Institute on Drug Abuse (NIDA) Potency Monitoring Project has reported delta-9-THC potency in combined U.S. marijuana and sinsemilla samples has increased from 3.06% in 1995 to 11.8% in 2014. DEA in 2015 noted an increase in high-grade marijuana imported into Texas from Colorado,

and intelligence reports indicated the cartels that used to traffic in cannabis seem to be shifting toward more profitable drugs such as methamphetamine and heroin.

The use of blunt cigars (cheap cigars split open with cannabis replacing the tobacco), flavored "wrapping papers," and "cones" have driven the increase in the use of cannabis among secondary school students. Terms used in the poison center reports included "hash oil," "wax," "shatter," "dabs," or "budder," which are more recent ways of using marijuana, as well as older terms such as "wet" or "fry," which describe dipping the joint in formaldehyde with or without PCP.

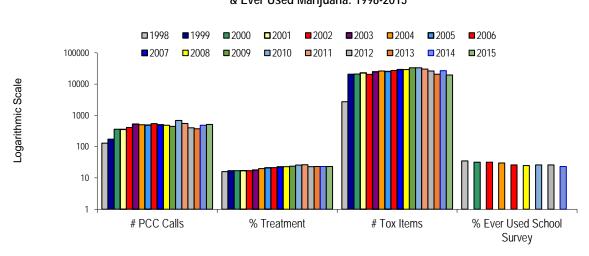


Exhibit 3. Texas Poison Control Calls, Treatment Admissions, Tox Lab Exhibits & Ever Used Marijuana: 1998-2015

The cannabis indicators peaked in 2010–2011 and have varied little since then.

Domestic cannabis in 2015 cost between \$225 and \$300 per ounce, whereas Mexican cannabis cost between \$20 and \$50. Hydroponic from California or Colorado cost between \$2,500 and \$3,200 per pound. High-grade "popcorn" sells for double the price of regular commercial-grade cannabis.

#### **METHAMPHETAMINE**

• Methamphetamine indicators are higher than before the pseudoephedrine ban in 2007–2008. The DEA El Paso Intelligence Center (EPIC) reported seizures of methamphetamine increased by 37% between 2013 and 2015 and it is ranked as the #1 drug threat in the DEA Dallas are and #2 in Houston. The methamphetamine made in Mexico using the P2P process is increasingly pure and more potent with more reports by Texas outreach workers of use by men who have sex with men and high-risk heterosexuals with increases in HIV and syphilis. The HIV mode of exposure among men who have sex with men is at the same level in 2015 (70% of all cases) as it was in 1988 when data on mode of exposure were first collected.

Methamphetamine and amphetamine indicators in 2015 were far higher than the highest levels seen before the pseudoephedrine precursor regulations enacted in 2005–2006 (Exhibit 4). Local "cooking" of ice using over-the-counter pseudoephedrine (PSE), which is available only in limited amounts with the

"one pot" or "shake and bake" method, is used to produce very small amounts of methamphetamine. As of the first half of 2016, samples using ephedrine and pseudoephedrine reactions had disappeared from DEA's Methamphetamine Profiling Program data set. Methamphetamine is now produced from the phenyl-2-propanone (P2P) method, which is used in Mexico where it is a legal chemical. A new subcategory using a nitrostyrene method has been identified and is being used by DEA to identify and track methamphetamine.

The kilograms of methamphetamine seized on the Texas–Mexico border increased 37% between 2010 and 2015, according to EPIC.

Methamphetamine has two isomers: the l and d forms. The d form is a more powerful psychostimulant, with 3 to 5 times the central nervous system activity as the l form. Meth made with PSE never had more than 50% d form (50% potent), but when made with P2P, the d form or potency is over 90%.

Methamphetamine was ranked the #1 drug threat in the Dallas DEA area and the #2 in the Houston DEA area, according to their Trends in Trafficking Reports. Poison control calls about methamphetamine exposure in 2015 were higher than they have ever been at 601 calls. Methamphetamine/amphetamine admissions to treatment programs increased from 3% of all admissions in 1995 to 11% in 2007, dropped to 8% in 2009, and then rose to 16% of admissions in 2015 (Exhibit 4). Route of administration was smoking (55%), injecting (34%), and inhaling (9%).

010 011 012 013 Logarithmic Scale # PCC Calls % Tmt Admits # Deaths % Tox Lab Items

Exhibit 4. Texas Poison Control, Treatment Admissions, Tox Lab Exhibits, & Deaths: Methamphetamine: 1998-2015

Sources: Texas Poison Centers, Texas Department of State Health Services, NFLIS

Methamphetamine represented 21% of all items analyzed by Texas forensic laboratories in 2005; in 2015, it comprised 34% of all the cases examined in Texas forensic laboratories. Amphetamine was present in less than 1% of the drug reports of items examined in 2015.

HIV outreach workers in the state reported methamphetamine use was "spiking" among men who have sex with men (MSM) and by high-risk heterosexuals along the entire Texas–Mexico border, with

increases in "slamming" or injecting. It has become the major drug problem in some areas that previously were dominated by heroin. There were also reports of increasing syphilis cases among those using crystal methamphetamine, especially in social circles that engage in risky sex. Global positioning systems (GPS) such as "Grindr," "Scruff," and "Jack'd" were being used to meet anonymous partners; HIV outreach staff were also using these "apps" to find HIV clients at risk and to offer testing for HIV. DSHS reported that the proportion of men who have sex with men and met partners via phone applications increased from 23% in 2013 to 39% in 2014.

The CDC triennial HIV survey of users in Dallas found that the proportion of men who reported non-injection use of meth in the past year went from 9% in 2008 to 45% in 2014, and statewide, the case rate for early latent syphilis (infected within last year) for MSM went from 79.0 in 2007 to 210.1 in 2015.

Clandestine cartel laboratories on the U.S. side of the border are used to convert imported liquid methamphetamine back into crystal rocks that are then distributed throughout the Midwest and Northeast, including major metropolitan areas such as Atlanta. The liquid methamphetamine looks like an icy sludge concealed in windshield wiper reservoirs, gas tanks, or within commercial product packaging such as shampoo bottles, beer bottles, or other liquid containers.

In 2015, ice cost \$400–\$1,600 per ounce and a kilogram cost \$6,000–\$17,000. Powder meth cost \$8,000–\$14,400 a pound.

#### **NEW PSYCHOACTIVE SUBSTANCES (OTHER THAN OPIOIDS)**

• The novel psychoactive substances/synthetics situation is mixed, marked by sporadic clusters of overdoses, which may be a result of amateur chemists mixing the drugs or bad batches of precursor chemicals. The number of poison calls for synthetic cannabinoids and cathinones peaked in 2014. The chemical ingredients of cannabinoids have changed from JWH varieties to AB-CHMINACA and XLR-11. The number of phenethylamines identified continues to increase. The primary synthetic cathinone in 2015 was ethylone. There is a growing problem with PCP-like reactions to the synthetic drugs; the analog producing these reactions has not yet been identified.

#### **Synthetic Cannabinoids**

Synthetic cannabinoids are compounds that mimic delta-9-THC but with different chemical structures that cannot be identified in standard commercial drug tests.

The compounds had been developed by researchers to investigate the part of the brain responsible for hunger, memory, and temperature control. The products are known and sold under a wide variety of names, such as "K2," "K2 Summit," "Spice," and "Spice Gold." They had been available through gas stations and "head shops," but since they have been more tightly controlled, the most common source is now street dealers.

The 2014 Texas School Survey of Drug and Alcohol Use reported 41% of the students in grades 7–12 had never heard of synthetic cannabinoids, only 25% thought it would be impossible to obtain, and 10% thought it would be very easy to obtain. Some 7% of students had used it.

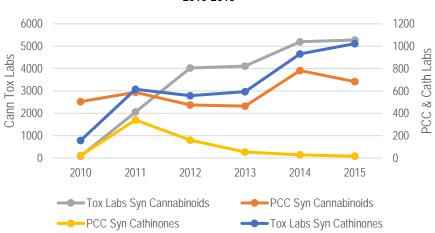


Exhibit 5. Texas Poison Control Center (PCC) Cases and Toxicology Laboratory Items identified as Synthetic Cannabis and Cathinones: 2010-2015

From 2010 through June 2016, the Texas Poison Center Network received 3,653 calls involving human exposures to synthetic cannabinoids. Of the calls to the Texas poison centers, the age range was between 1 and 75 years; 45% were younger than 20 years of age; 77% were male; and 85% had either misused or abused the substance. Of these calls, 10% resulted in "major" or life-threatening conditions; five deaths from synthetic cannabinoids were reported to the Texas poison control centers between 2010 and April 2016.

The variation in the number of cases reported by the poison centers may be a result of local "recipes" for mixing the raw ingredients that produce serious side effects or mislabeled or unknown precursor chemicals imported into the United States. The raw chemicals are shipped in from China or other countries and then mixed and placed in the little bags locally for sale.

In 2015, 720 persons with a primary problem with "other cannabinoids" entered Texas treatment programs as compared with 412 in 2014 The average age was 24 years old, 45% were White, and 42% were Hispanic. Seventy percent were male, and 41% used the substance daily.

Exhibit 5 shows the number of synthetic cannabinoid items seized and analyzed between 2010 and 2015. The number of different types of these synthetics increased from 6 in 2010 to 33 in 2015. In addition, the varieties of the drugs changed each year. In 2010, 99% of the exhibits were JWH varieties but less than 1% were JWH in 2015 when the most common varieties were - AB-CHMINACA and XLR-11.

The surge in emergency department cases in Austin reporting smoking "Spice" or "K-2" in the summer of 2016 in Austin produced effects that resembled PCP but could not be verified by toxicology tests. HIV outreach workers reported increasing use of "Spice," including mentions of the use of embalming fluid laced with synthetic cannabinoids. No information was reported as to whether the embalming fluid contained PCP or another synthetic substance. Street outreach workers reported NBOMe being sold in

small bottles with droppers or on blotters, so the liquid dropped on the synthetic joints that is causing the problematic behaviors could be PCP or NBOMe.

#### Phenethylamines (2 C-xx)

A broad range of abused compounds share a common phenylethan-2-amine structure. Some are naturally occurring neurotransmitters (dopamine and epinephrine), whereas others are psychoactive stimulants (amphetamine, including MDA), entactogens (MDMA), or hallucinogens (the 2 C-xx series of compounds).

Common street names for 2 C-B include "Nexus," "Bees," "Venus," "Bromo Mescaline," and BDM-PEA. It is known for having a strong physical component to its effects and a moderate duration. Other phenethylamines include 2 C drugs with a third letter of E, C, I, P, and T.

Forensic laboratories reported that in Texas in 2015, there were 532 reports of 2 C-xx drugs, as compared with 24 in 2012, and 382 2 C-NBOME items as compared with 75 in 2012.

#### **Synthetic Cathinones**

Emerging psychoactive substances include the substituted or synthetic cathinones such as ethylone, 4methyl-N-ethylcathinone (4-MEC), alpha-pyrrolidinopentiophenone (alpha-PVP), and penterone, as well as hallucinogenic cathinones such as mephedrone, methylenedioxypyrovalerone (MDPV), methynone, and methylone. They are synthetic derivatives from the khat plant and are part of the phenethylamine structural class.

These drugs are usually supplied as white crystalline powders, although they also are available in tablet form. They are sold over the Internet and rescheduling has decreased sales through "head shops" and convenience stores, with street dealers now being the primary source of the drugs.

The Texas Poison Center Network data show the number of human exposures to synthetic cathinones peaked in 2011 (Exhibit 5). Between 2010 and 2015, 15% of the cases were younger than 20 years old, with an age range of 12–67 years. Three quarters were male; 87% intended to abuse or misuse the drug; 43% inhaled it; 31% swallowed it; and common symptoms included tachycardia, hypertension, agitation, confusion, and hallucinations. For 48% of the cases, a moderate effect was reported (patient returns to preexposure state). For 12% of the cases, there was a "major" effect that was life-threatening or caused significant residual disability. Four deaths were reported by the Texas poison control centers between 2010 and 2015.

The forensic laboratories in Texas identified 156 drug items that were synthetic cathinones in 2010 and 1023 in 2015 (Exhibit 5). In 2010, there were 5 different variations of the cathinones compared with 15 varieties in 2011, 28 in 2012, 15 in 2013, 19 in 2014, and 18 in 2015. Ethylone was the most common cathinone identified in 2015. Ethylone costs \$700 per ounce, and bags containing 3 grams sell for \$3.50—\$10.

#### **OPIOIDS**

- Heroin users are younger and less likely to be people of color. Indicators of deaths and poison center calls continued to rise, but seizures along the Texas–Mexico border decreased 10%.
   Nevertheless, the DEA reported Mexican opium production is increasing to sustain the increasingly high levels of demand in the United States.
- Indicators for "other opioids", which excludes heroin but includes drugs such as methadone and codeine, are trending downward as a result of rescheduling of hydrocodone. Oxycodone is less of a problem than hydrocodone and it has remained stable, as have buprenorphine and methadone numbers. Oxycodone numbers are not as consistent in terms of trending, but its use is much lower than for hydrocodone. Fentanyl abuse and misuse in Texas traditionally involved the transdermal patches, but new rogue fentanyl powder began appearing in spring 2016. New synthetic opioids such as UR-47700 also began appearing.

#### Heroin

*Heroin*. This increase in younger users was first documented with the powdered "cheese heroin" mixture of heroin and Tylenol® 2 in Dallas in the mid-2000s, but heroin use indicators by youth and young adults are now increasing statewide. Outreach workers in Laredo have reported use of "Mexican Queso," which is heroin, Xanax®, and Excedrin® PM.

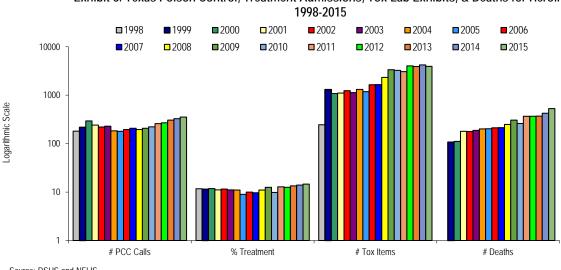


Exhibit 6. Texas Poison Control, Treatment Admissions, Tox Lab Exhibits, & Deaths for Heroin:

Source: DSHS and NFLIS

The primary types of heroin in Texas are Mexican black tar and powdered brown, which is black tar turned into a powder by combining it with diphenhydramine or other ingredients. Mixing fentanyl with black tar is rare, but outreach workers have reported former pain pill users are experimenting with heroin or cutting heroin with fentanyl. EPIC reported a 10% decrease in kilograms of heroin seized on

the Texas—Mexico border in 2015. Some of the creamy white heroin produced in Mexico, which has lower potency than the white South American, transits through Texas on its way to the markets in the Northeast. The Houston DEA field division reports heroin is moderately available and is stable.

Calls to the Texas Poison Center Network involving exposures to heroin and treatment admissions both peaked in 2015 (Exhibit 6). The proportion of White treatment admissions has increased from 40% in 1974 to 61% in 2015. The average age of those seeking treatment in 2015 was 34 years old, and 60% were male. The average age of those who died from heroin declined from 40 years old in 2008 to 36 years old in 2015.

Eighty-one percent of heroin addicts entering treatment injected the drug; smoking black tar heroin is rare in Texas because the chemical composition tends to flare and burn rather than to smolder, but street outreach workers have reported seeing users smoking heroin on foil.

A gram of black tar heroin costs \$100–\$225; a kilogram costs \$18,000–\$44,000. Powdered brown heroin costs \$100–\$140 per gram and \$800–\$1,600 per ounce. Heroin that has an "undetermined" footprint (not black tar nor brown powder) costs \$900–\$1,200 per ounce.

#### **Other Opioids**

The "other opioids" group excludes heroin but includes drugs such as methadone and codeine. The indicators are trending downward as a result of rescheduling of hydrocodone. Oxycodone is less of a problem than hydrocodone and it has remained stable, as have buprenorphine and methadone numbers. Oxycodone numbers are not as consistent in terms of trending, but its use is much lower than for hydrocodone. Fentanyl abuse and misuse in Texas traditionally involved the transdermal patches, but new rogue fentanyl powder began appearing in spring 2016. New synthetic opioids such as UR-47700 also began appearing.

The term "synthetic narcotic" refers to drugs such as fentanyl and Dilaudid® that are not made from natural materials but from chemicals. NFLIS shows the primary opioid of abuse in Texas is hydrocodone. In the spring 2016, first reports of the synthetic opiate UR49000 were received from forensic laboratories and poison centers in Texas.

Exhibit 7. Indicators of Abuse of Opiates in Texas: 1999–2015

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Poison Control Center Case	s of Abu	se and N	lisuse														
Buprenorphine		4	0	2	12	12	27	33	61	83	109	130	138	116	303	269	216
Fentanyl		9	1	3	11	17	11	139	155	120	143	109	132	110	98	120	100
Hydrocodone		236	123	348	465	747	431	657	703	723	748	838	869	814	645	530	351
Methadone		81	96	138	141	199	233	216	246	218	187	214	159	174	151	168	153
Oxycodone		62	99	68	67	112	50	68	67	81	74	101	95	129	74	63	82
DSHS Treatment Admission	S																
Methadone <sup>a</sup>	69	44	52	75	86	63	91	101	113	160	145	132	180	193	170	178	167
"Other Opiates" <sup>a</sup>	815	890	1,386	2084	2794	3433	3482	3903	4529	5221	5844	2679	2047	1851	1972	1923	1685
Codeine <sup>à</sup>													109	102	81	99	110
Hydrocodone <sup>a</sup>													3102	3277	2972	2583	2272
Hydrom orphone <sup>a</sup>													222	275	211	188	195
Oxycodone													342	323	326	323	282
Deaths with Mention of Sub	stance (I	OSHS) <sup>D</sup>			`												
Other Opioids	123	164	228	322	374	371	412	585	533	462	559	564	540	504	483	494	482
Synthetic Narcotics	49	46	77	117	76	94	86	111	118	86	166	156	114	121	112	157	148
Methadone	24	50	89	136	155	160	199	223	195	173	177	180	179	142	128	116	194
Drug Exhibits Identified by	Forensic	Toxicol	ogy Labo	ratories	(NFLIS)												
Buprenorphine	9	12	6	10	11	6	6	13	25	43	89	137	133	89	73	96	87
Hydrocodone	530	661	1,010	1162	1701	2038	2166	3201	3835	3663	4242	5358	4939	4026	2682	2997	1580
Methadone	20	23	52	62	79	150	184	204	251	302	288	288	318	321	266	225	212
Oxycodone	41	77	150	164	232	309	339	335	333	397	456	528	458	452	371	426	420
Tramadol	16	20	43	31	61	81	96	106	118	144	178	240	244	264	196	276	219
Distribution of Controlled S	ubstance	s by Ma	nufactur	er (ARCC	S)-Dosa	ge/100K	Texas Po	pulation	1								
Buprenorphine								62	102	176	231	230	274	315	360	379	393
Hydrocodone								14694	17670	17861	19290	16887	18695	17835	12889	16001	12140
Oxycodone								4423	5536	4935	5107	4464	4669	4739	4660	4757	5177
Methadone								2530	2677	2700	2743	2373	2272	2108	2378	2385	2401

a "Other Opiates" refers to all other opioids until 2010; starting in 2011 specific opioids are reported

In Texas, fentanyl abuse and misuse has usually involved the transdermal patches, not rogue fentanyl powder, which was being mixed with the white South American heroin on the East Coast. Nevertheless, street outreach workers have now reported that heroin is "very strong" and may be cut with fentanyl and deaths involving abuse of fentanyl powder have been reported in 2016.

Exhibit 7 shows the indicators in the use of various opioids. Hydrocodone calls to the poison control centers continue to drop after the drug became Schedule II, and methadone cases have dropped after the 35-mg diskette was limited to narcotic treatment programs.

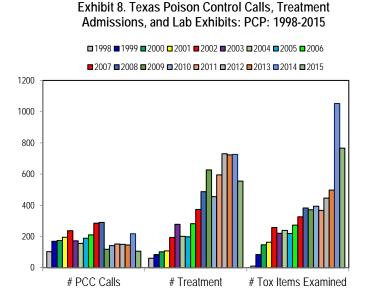
Treatment admissions for other opioids have decreased from their high points in 2008–2009, and the number of opioid items seized and identified in forensic laboratories has fallen. Data from DEA's ARCOS system shows the amount of controlled substances distributed from the manufacturer to pharmacies. The increases in buprenorphine reflect increased use of the drug for narcotic treatment in the state.

Besides rescheduling, the number of reports of opioids from items analyzed by forensic laboratories has decreased over time because of the introduction of abuse-resistant tablets to deter crushing and inhaling, public information campaigns about abuse of prescription drugs, education for prescribers, legislation to decrease pill mills, and new legislation strengthening use of the Prescription Drug Monitoring Program (PDMP) by prescribers. In addition, the amount of tramadol being identified in NFLIS points to a need to monitor this Schedule IV substance (Exhibit 7).

#### **PCP**

PCP remains as a problem. The number of PCP items identified by forensic labs peaked in 2014 at 1,052 and dropped to 766 in 2015, which may be because many individuals who needed hospital care had taken "K-2" OR "Spice" and they exhibited the classic PCP signs, but the forensic tests did not indicate the presence of PCP. Some N-BOMe analogs that have not been identified may be mimicking the PCP behaviors.

Exhibit 8. Texas Poison Control Calls, Treatment Admissions, and Lab Exhibits for PCP: 1998-2015



Sources: Texas Poison Center, DSHS & NFLIS

Phencyclidine is known as "Wet," "Wack," "PCP," or formaldehyde. Often, marijuana joints are dipped in formaldehyde that contains PCP or PCP is sprinkled on the joint or cigarette. Although PCP is not usually associated with the use of the new unknown psychoactive drugs, it is included in this report section that there have been serious reactions from unknown synthetic drugs that mimic the symptoms of PCP use, such as out-of-body strength, excited delirium, and nakedness. Similar symptoms may also be seen with NBOMe and some synthetic cathinones, but because of the difficulty in quickly identifying the substance, there may be confusion as to which drug is being seen on the street.

As Exhibit 8 shows, abuse of PCP is growing. In addition, the characteristics of the users have changed: In 2001, 73% were male, but in 2015, only 36% were male. Of the 2015 admissions, 85% were Black and average age was 32 years old.

The number of PCP items identified by forensic laboratories peaked at 1052 in 2014 before decreasing to 766 in 2015.

#### Abuse Patterns on the Texas-Mexico Border

Different patterns were also seen in border and nonborder admissions to DSHS-funded treatment in 2015 (Exhibits 9 and 10). Border clients were more likely to report problems with cannabis, cocaine, and heroin. Nonborder clients were more likely to report more use of methamphetamine.

Exhibit 9. Admissions to Texas DSHS-Funded Treatment: Border 1996-2015

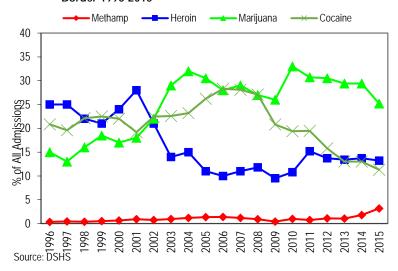
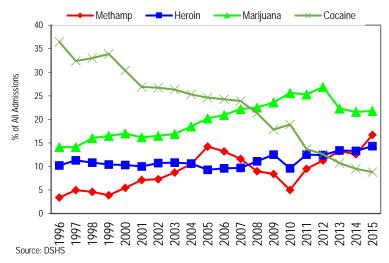


Exhibit 10. Admissions to Texas DSHS-Funded Treatment: Nonborder 1996-2015



#### **Infectious Diseases Related to Substance Use**

#### **Hepatitis C**

Since 2005, Texas has reported less than 100 cases of acute hepatitis C each year, with a historic low of 28 cases reported in 2013. Acute hepatitis C is primarily a disease of adults in Texas, but it affects adults of all ages. Only acute hepatitis C is reportable in Texas. In 2014, the HCV incidence rates per 100,000 Texans was highest for those ages 19–29 years old, at 0.3.

#### **Sexually Transmitted Diseases**

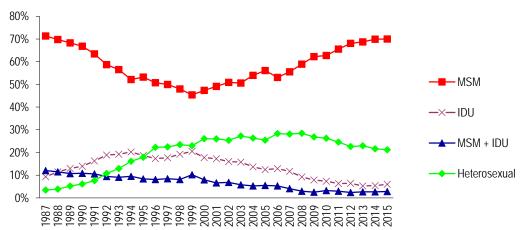
Street outreach workers were reporting increasing numbers of syphilis cases among young men who have sex with men, along with reports of both males and females engaging in transactional sex for drugs or to obtain money. There were more reports of people using the Internet and classified ads to market their service, such as through the use of smart phone applications, like Grindr and Jack'd. DSHS reported that the proportion of men who have sex with men and met partners via phone applications increased from 23% in 2013 to 39% in 2014.

The 2015 case rates statewide for chlamydia increased from 364.1 in 2007 to 487.3 in 2015. They were higher for females than for males, highest for persons between 20 and 24 years of age, and highest for Blacks in 2015. The case rates for gonorrhea increased from 134.8 in 2007 to 136.7 in 2015 and they were highest for females and for those between 20 and 24 years of age. The case rates for syphilis were higher for males, for Blacks, and for those between 20–24 and 25–29 years of age. The case rate per 100,000 for early latent syphilis increased from 4.9 in 2007 to 6.2 in 2015. Men who reported having sexual contact with other men comprised 53% of all persons diagnosed with "early latent" syphilis, which is infection within the last 12 months.

#### **HIV Cases**

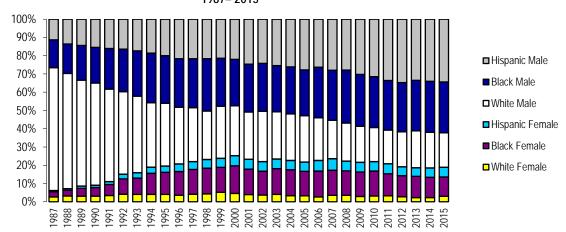
The proportion of new HIV diagnoses among men who have sex with men (MSM) decreased from 71% in 1987 to 45% in 1999 before returning to 70% in 2015 (Exhibit 11). Of cases diagnosed in 2015 cases, 21% reported heterosexual mode of exposure and 6% reported intravenous drug use (IDU). The proportions of new HIV diagnoses involving IDUs or IDUs/MSM have decreased over time, and the proportion of IDUs entering DSHS-funded treatment programs has also decreased, from 32% in 1988 to 18% in 2015. Persons diagnosed with HIV were increasingly likely to be people of color. Of the HIV cases in 2015, 39% were Black, 39% were Hispanic, and 22% were White (Exhibit 12).

Exhibit 11. New HIV Cases in Texas by Mode of Exposure: 1987–2015



Source: DSHS

Exhibit 12. New Texas HIV Diagnoses by Sex and Race/Ethnicity: 1987– 2015



Source: DSHS

### **Appendix Table**

**Characteristics of Clients at Admission to Texas DSHS-Funded Treatment Programs: 2015** 

Primary Substance	Total	% of All Admissions	Average Age	Yrs Lag to Admit	% Black	% White	% Hispanic	% Male	% Inject	% Use Daily	% Work Full Time	% No Legal Problems	Av. Yrs. Education
Aerosols	22	0.0	29.0	5.5		0.0	47.8	68.2		18.2		50.0	11.6
Alcohol	20230	27.0	39.1	23.3	12.3	56.2	30.1	66.5	0.0	40.0	22.3	49.1	12.0
Amphetamine	2519	3.4	33.0	11.1	3.9	78.2	16.8	45.1	34.8	29.4	13.9	44.2	11.5
Ativan (Lorazepam)	11	0.0	36.7	5.8		90.9		27.3		81.8		72.7	14.0
Barbiturate Sedatives	12	0.0	30.8	6.7		66.6	33.3	25.0				41.7	12.2
Benadryl (Diphenhydramine)	5	0.0	25.2	5.0		100.0		20.0		100.0		100.0	11.8
Benzodiazepines	81	0.1	30.7	9.8	4.2	69.1	25.5	37.0		43.2	12.3	45.7	11.4
Buprenorphine	65	0.1	33.5	4.6	7.7	76.9	15.4	46.2		75.4	15.4	75.4	12.3
Cocaine	3650	4.9	35.3	13.4	34.1	26.5	38.5	50.4	5.2	18.2	18.1	44.2	11.3
Codeine	101	0.1	31.7	11.9	44.5	30.0	22.7	78.2		22.8	14.9	29.7	11.7
Cough Syrup	43	0.1	27.4	6.1	12.5	62.5	16.7	69.8			11.6	62.8	12.0
Crack	3313	4.4	43.7	18.6	53.2	31.0	15.0	49.6	0.4	37.9	7.5	59.8	11.4
Demerol (Meperidine Hcl)	5	0.0	35.8	8.6		100.0		20.0					13.6
Dilaudid (Hydromorphone)	192	0.3	36.5	8.8		94.9	3.6	43.2	77.6	59.9	6.8	68.2	12.2
Ephedrine/Psuedoephedrine	8	0.0	26.3	7.3		77.7		62.5					10.9
GHB/GBL (GammaHydroxybutyrate, Gamma-Butyrolactone)	19	0.0	37.7	6.3		94.7		47.4		47.4	26.3	36.8	11.7
Hallucinogens	96	0.1	29.8	9.4	30.5	44.8	22.9	69.8		32.3	12.5	45.8	10.9
Heroin	10989	14.6	33.7	11.6	7.3	61.3	30.7	60.5	81.2	78.2	7.1	68.1	11.5
Inhalants	20	0.0	31.3	14.4		60.0	32.0	60.0		30.0		35.0	10.0
Klonopin (Clonazepam)	67	0.1	35.5	8.1	8.6	80.0	10.0	25.4		61.2	6.0	58.2	11.7
LSD	47	0.1	21.7	5.6	8.0	80.0	12.0	63.8		23.4		53.2	11.2

#### Characteristics of Clients at Admission to Texas DSHS-Funded Treatment Programs: 2015 (continued)

Primary Substance	Total	% of All Admissions	Average Age	Yrs Lag to Admit	% Black	% White	% Hispanic	% Male	% Inject	% Use Daily	% Work Full Time	% No Legal Problems	Av. Yrs. Education
MDMA/Ecstasy (Methylenedioxy- metamphetamine)	99	30.6	16.2	6.7	52.3	30.6	16.2	51.5		14.1	13.1	32.3	11.4
Marijuana/Hashish	16988	22.6	23.7	9.5	25.9	32.1	40.9	69.0	0.0	20.7	17.5	27.0	10.6
Mescaline	4	0.0	17.3	3.8		100.0		100.0					9.8
Methadone (Non- Prescription)	162	0.2	35.4	7.8		76.6	21.0	45.7	3.7	77.2	10.5	77.2	11.8
Methamphetamine	9476	12.6	32.5	10.7	3.3	77.8	17.3	41.8	34.1	30.0	12.4	48.2	11.5
Opiates and Synthetics	1563	2.1	35.0	12.3	8.8	74.1	15.9	46.1	27.3	52.4	12.9	64.4	12.2
Other Cannabinoids	687	0.9	24.3	3.6	12.1	45.4	42.2	70.9		40.3	8.4	39.3	10.6
Other Drugs	175	0.2	30.0	5.3	11.2	41.9	46.9	62.3		62.9	8.0	58.9	11.5
Other Sedatives	12	0.0	31.7	9.8		73,3		58.3		33.3	58.3		12.8
Over-the-counter	9	0.0	25.2	2.9		70.0		22.2		77.8		66.7	10.8
Oxycodone	269	0.4	33.4	10.0	3.5	82.6	11.3	52.0	6.3	49.4	12.6	64.3	12.5
PCP (Phencyclidine)	534	0.7	32.1	11.0	84.9	9.5	5.6	36.1		19.3	15.5	41.0	11.0
Psilocybin Mushrooms	6	0.0	25.3	8.8		100.0		83.3					10.8
Rohypnol (Flunitrazepam)	9	0.0	15.0	1.6		66.7							7.9
Sedatives	22	0.0	33.3	9.2	22.7	63.6		45.5		27.3	18.2	40.9	12.1
Solvents (Paint Thinner, Gasoline, Glue)	9	0.0	26.1	7.3			55.6	44.4		44.4		66.7	11.1
Special K (Ketamine)	23	0.0	26.9	3.7	21.7	60.9	17.4	65.2		56.5		47.8	11.0
Stimulants	25	0.0	32.1	13.5	14.8	66.7	18.5	56.0	24.0	48.0		48.0	12.1
Ultram (Tramadol)	65	0.1	38.1	8.3	17.9	64.2	17.9	26.2		66.2	9.2	73.8	12.4
Valium (Diazepam)	20	0.0	41.5	7.5		65.0	35.0	35.0		70.0	20.0	50.0	11.8
Vicodin (Hydrocodone)	2205	2.9	34.9	10.8	9.2	71.2	18.5	34.6	0.4	63.7	11.0	66.8	12.0
Xanax (Alprazolam)	1143	1.5	28.0	8.9	15.0	55.8	27.7	37.3		43.3	9.5	46.3	11.4

Note: The table was updated on 7/25/2016 and may not match numbers on other tables created earlier.

#### **Data Sources**

Data for this report were drawn from the following sources:

Student substance use data for 2014 came from reports on the Texas School Survey of Drug and Alcohol

Use: Grades 7–12, 2014, which was provided by Abigail Cameron of the Department of State Health Services (DSHS). For 2013, the data for high school students in grades 9–12 came from the Youth Risk Behavior Survey (YRBS)—United States, 2013, MMWR Surveillance System, downloaded at <a href="http://apps.nccd.cdc.gov/youthonline/App/Default.aspx?SID=HS">http://apps.nccd.cdc.gov/youthonline/App/Default.aspx?SID=HS</a>.

**Data on drug use** by Texans age 12 and older came from the Substance Abuse and Mental Health Services Administration's National Surveys on Drug Use and Health (NSDUH). The statewide estimates are from the 2012–2013 NSDUH.

**Poison control center data** came from the Texas Poison Center Network, DSHS, for 1998 through 2015, courtesy of Mathias Forrester.

**Treatment data** were provided by the DSHS data system on clients admitted to treatment in DSHS-funded facilities from January 1, 1987, through December 31, 2015. Analysis of the 2015 data was conducted by Lesli San Jose of the DSHS Decision Support Program and by the author.

**Information on drug mortality** through 2015 came from the Bureau of Vital Statistics, DSHS, courtesy of Lyudmila Baskin, as well as from CDC Wonder. These data are classified as "provisional," meaning the 2015 data are not final but subject to revision as more reports are received. The final 2015 numbers will be available on CDC Wonder in January, 2017.

**Information on seized drugs identified by laboratory tests** came from forensic laboratories in Texas, which reported results from analyses of substances for 1998 through 2015 to the National Forensic Laboratory Information System (NFLIS) of the Drug Enforcement Administration (DEA). The drugs reported include not only the first drug reported in a case of multiple substances but also the second and third drugs in any combination.

**Information on methamphetamine purity and potency** through the first half of 2016 came from the Methamphetamine Profiling Program of DEA.

**Price, trafficking, distribution, and supply information** was gathered from 2015 reports on Trends in the Traffic Report System from the Dallas and Houston Field Divisions (FDs) of the DEA.

**Reports by users and street outreach workers** on drug trends for the first quarter of 2016 were reported to DSHS by workers at local HIV (human immunodeficiency virus) counseling and testing programs across the State.

**Sexually transmitted disease and AIDS** (acquired immunodeficiency syndrome) data through 2015 were provided by Emily Rowlinson of DSHS.

**Data on kilograms seized on the Southwest Texas–Mexico border** between 2013 and 2015 came from reports from the El Paso Intelligence Center (EPIC).

**Potency of cannabis** came from the Marijuana Potency Monitoring Project, University of Mississippi, National Center for Natural Products Research, Research Institute of Pharmaceutical Sciences. Quarterly Report #124, Potency Monitoring Program (March 21, 2014) for data from 1995 to 2013; Quarterly Report 107 (January 12, 2010) for data from 1985 to 1994.

For additional information about the drugs and drug use patterns discussed in this report, please contact Jane C. Maxwell, Ph.D., Research Professor, School of Social Work, The University of Texas at Austin, Suite 335, 1717 West 6th Street, Austin, TX 78703, Phone: 512–656-3361, E-mail: jcmaxwell@austin.utexas.edu.

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

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

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

The SCS Data Tables for each of the 12 Sentinel Community Sites and detailed information about NDEWS can be found on the NDEWS website at www.ndews.org.

### Table 1: Demographic and Socioeconomic Characteristics State of Texas

2010-2014 ACS 5-Year Estimates

	Estimate	Margin of Error
Total Population (#)	26,092,033	**
Age		
18 years and over (%)	73.2%	+/-0.1
21 years and over (%)	68.7%	+/-0.1
65 years and over (%)	10.9%	+/-0.1
Median Age	33	3.9
Race (%)		
White, Not Hisp.	44.3%	+/-0.1
Black/African American, Not Hisp.	11.6%	+/-0.1
Hispanic/Latino (of any race)	38.2%	**
American Indian/Alaska Native	0.3%	+/-0.1
Asian	4.0%	+/-0.1
Native Hawaiian/Pacific Islander	0.1%	+/-0.1
Some Other Race	0.1%	+/-0.1
Two or More Races	1.5%	+/-0.1
Sex (%)		
Male	49.6%	+/-0.1
Female	50.4%	+/-0.1
Educational Attainment (Among Population Aged 25+ Year	rs) (%)	
High School Graduate or Higher	81.6%	+/-0.1
Bachelor's Degree or Higher	27.1%	+/-0.1
Unemployment (Among Civilian Labor Force Population Ag	ed 16+ Years)	(%)
Percent Unemployed	7.7%	+/-0.1
Income (\$)		
Median Household Income (in 2014 inflation-adjusted dollars)	\$52,576	+/-147
Health Insurance Coverage (Among Civilian Noninstitution	alized Population	on) (%)
No Health Insurance Coverage	21.9%	+/-0.1
Poverty (%)		
All People Whose Income in Past Year Is Below Poverty Level	17.7%	+/-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.

**SOURCE:** Adapted by the NDEWS Coordinating Center from data provided by the U.S. Census Bureau, 2010–2014 American Community Survey (ACS) 5-Year Estimates.

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

#### Table 2a: Self-Reported Substance Use Behaviors Among Persons 12+ Years in Texas, 2012–2014

Estimated Percent, 95% Confidence Interval, and Estimated Number\* Annual Averages Based on Combined 2012 to 2014 NSDUH Data

		Texas	
Substance Use Behaviors	Estimated	d % (95% CI)*	Estimated #*
Used in Past Month			
Alcohol	47.21	(45.92 – 48.50)	10,034,155
Binge Alcohol**	22.34	(21.28 – 23.44)	4,748,100
Marijuana	5.62	(5.13 – 6.16)	1,195,249
Use of Illicit Drug Other Than Marijuana	3.00	(2.63 – 3.41)	637,222
Used in Past Year			
Cocaine	1.37	(1.15 – 1.64)	291,970
Nonmedical Use of Pain Relievers	4.19	(3.77 – 4.64)	889,783
Dependence or Abuse in Past Year***			
Illicit Drugs or Alcohol	7.84	(7.28 – 8.45)	1,667,491
Alcohol	6.52	(5.98 – 7.10)	1,386,158
Illicit Drugs	2.19	(1.92 – 2.49)	465,102

#### NOTES:

- \*Estimated %: Substate estimates are based on a small area estimation methodology in which 2012–2014 substate level NSDUH data are combined with county and census block group/tract-level data from the state; 95% Confidence Interval (CI): Provides a measure of the accuracy of the estimate. It defines the range within which the true value can be expected to fall 95 percent of the time; Estimated #: The estimated number of persons aged 12 or older who used the specified drug or are dependent/abuse a substance was calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (21,255,571) 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 reponses 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 *Texas*, by Age Group, 2012–2014 Estimated Percent and 95% Confidence Interval (CI)\*, Annual Averages Based on Combined 2012 to 2014 NSDUH Data

				Texas		
		12–17		18–25		26+
Substance Use Behaviors		ated Percent 95% CI)*		nated Percent 95% CI)*		nated Percent 95% CI)*
Used in Past Month						
Binge Alcohol**	6.03	(5.30 – 6.86)	34.89	(33.16 – 36.65)	22.35	(21.03 – 23.73)
Marijuana	6.21	(5.46 – 7.06)	14.53	(13.32 – 15.84)	3.87	(3.32 – 4.51)
Use of Illicit Drug Other Than Marijuana	3.94	(3.33 – 4.66)	5.73	(4.97 – 6.59)	2.35	(1.94 – 2.84)
Used in Past Year						
Cocaine	0.75	(0.54 – 1.04)	3.88	(3.25 – 4.62)	1.00	(0.75 – 1.32)
Nonmedical Use of Pain Relievers	5.01	(4.35 – 5.76)	8.55	(7.61 – 9.59)	3.25	(2.79 – 3.79)
Substance Use Disorder in Past Year***						
Illicit Drugs or Alcohol	5.52	(4.81 – 6.34)	15.82	(14.55 – 17.18)	6.69	(6.02 – 7.42)
Alcohol	3.07	(2.60 – 3.63)	12.58	(11.49 – 13.76)	5.89	(5.24 – 6.60)
Illicit Drugs	3.57	(2.97 – 4.27)	5.52	(4.77 – 6.37)	1.36	(1.08 – 1.72)

#### NOTES:

**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

<sup>\*</sup>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.

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

<sup>\*\*\*</sup>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)*.

#### Table 3: Self-Reported Substance Use-Related Behaviors Among Texas ^ Public High School Students, 20131

Estimated Percent and 95% Confidence Interval (CI) 2011 and 2013 YRBS\*

	201	.3 vs 2011		20:	13 by Sex			2013 by Race	
	2013	2011		Male	Female		White	Black	Hispanic
Substance Use	Perd	cent	p-	Perd	cent	p-		Percent	
Behaviors	Estimate (95% CI)	Estimate (95% CI)	value	Estimate (95% CI)	Estimate (95% CI)	value	Estimate (95% CI)	Estimate (95% CI)	Estimate (95% CI)
Used in Past Month									
Alcohol	36.1 (32.5 - 39.9)	39.7 (37.4 - 42.2)	0.09	35.9 (30.8 -41.4)	36.2 (33.1 -39.6)	0.90	43.3 (38.7 -48.0)	24.8 (20.4 -29.9)	34.3 (30.1 -38.8)
Binge Alcohol**	21.0 (17.5 - 25.0)	23.5 (21.1 - 26.0)	0.25	22.2 (17.5 -27.7)	19.9 (16.9 -23.2)	0.25	27.5 (23.1 -32.4)	10.3 (7.1 - 14.7)	19.6 (16.3 -23.4)
Marijuana	20.5 (17.9 - 23.2)	20.8 (18.2 - 23.6)	0.87	22.0 (19.0 -25.3)	18.9 (16.2 -21.9)	0.03	18.5 (14.6 -23.0)	22.5 (17.6 -28.3)	21.5 (17.6 -25.9)
Ever Used in Lifetim	e								
Alcohol	67.2 (63.4 - 70.8)	72.7 (69.9 - 75.4)	0.02	64.8 (58.9 -70.2)	69.7 (66.0 -73.2)	0.11	72.9 (68.9 -76.5)	60.3 (51.1 -68.9)	65.6 (61.2 -69.7)
Marijuana	37.5 (33.5 - 41.7)	40.5 (36.8 - 44.3)	0.27	40.0 (35.5 -44.6)	35.1 (30.7 -39.8)	0.02	34.3 (29.0 -40.1)	40.3 (34.0 -46.9)	39.8 (33.8 -46.1)
Cocaine	8.3 (6.8 - 10.2)	9.4 (8.1 - 11.0)	0.29	11.2 (8.8 - 14.2)	5.3 (4.2 - 6.7)	0.00	5.8 (4.2 - 8.0)	5.7 (2.9 - 10.7)	10.2 (8.3 - 12.5)
Hallucinogenic Drugs	_	-	~	_	_	~	_	_	_
Inhalants	9.5 (8.1 - 11.1)	11.4 (10.1 - 12.9)	0.05	9.5 (7.4 - 12.0)	9.5 (7.7 - 11.6)	1.00	8.4 (6.6 - 10.6)	9.1 (5.9 - 13.7)	10.0 (8.3 - 12.1)
Ecstasy also called "MDMA"	8.8 (7.2 - 10.6)	11.9 (10.0 - 14.1)	0.02	10.1 (8.3 - 12.2)	7.5 (5.7 - 9.7)	0.02	7.8 (6.0 - 10.2)	7.9 (4.0 - 15.0)	9.4 (7.0 - 12.6)
Heroin	3.8 (2.5 - 5.7)	3.3 (2.6 - 4.1)	0.57	5.5 (3.5 - 8.6)	1.9 (1.0 - 3.4)	0.00	2.1 (1.3 - 3.5)	5.0 (2.1 - 11.5)	3.7 (2.4 - 5.7)
Methamphetamine	4.8 (3.5 - 6.6)	5.0 (4.3 - 5.9)	0.80	6.4 (4.5 - 9.0)	3.2 (2.1 - 5.0)	0.01	3.8 (2.8 - 5.2)	7.5 (3.5 - 15.4)	4.1 (2.6 - 6.5)
Rx Drugs without a Doctors Prescription	19.0 (16.5 - 21.7)	22.1 (19.7 - 24.7)	0.08	20.8 (17.9 -24.1)	17.0 (14.1 -20.4)	0.03	20.6 (17.0 -24.8)	17.5 (12.9 -23.4)	17.8 (14.3 -22.0)
Injected Any Illegal Drug	2.9 (1.9 - 4.3)	3.1 (2.5 - 3.9)	0.71	3.9 (2.5 - 6.0)	1.8 (1.0 - 3.5)	0.03	2.3 (1.3 - 3.9)	2.4 (1.1 - 5.1)	3.0 (1.9 - 4.7)

#### NOTES:

**Source:** Adapted by the NDEWS Coordinating Center from data provided by the Centers for Disease Control and Prevention (CDC), 1991-2013 High School Youth Risk Behavior Survey Data. Available at http://nccd.cdc.gov/youthonline/. Accessed on [3/12/2015].

<sup>12013: 2015</sup> YRBS data not available for Texas so 2013 data is presented.

<sup>&#</sup>x27;-' = Data not available;  $\sim$  = P-value not available; N/A = < 100 respondents for the subgroup.

**<sup>^</sup>Texas:** weighted data were available for Texas in 2011 and 2013; 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.

<sup>\*</sup>Sample Frame for the 2011 and 2013 YRBS: sampling frame consisted of public schools with students in at least one of grades 9-12. The sample size for 2011 was 4,209 with an overall response rate of 72%; the 2013 sample size was 3,181 with a 61% overall response rate.

<sup>\*\*</sup>Binge Alcohol: defined as 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.

#### Table 4a: Trends in Admissions\* to Programs Treating Substance Use Disorders, Texas Residents, 2011-2015

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

					Calend	ar Year				
	20	11	20	2012 2013			20	14	20	15
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	74,436	100%	75,103	100%	78,299	100%	75,136	100%	78,273	100%
Primary Substance of Ab	use (%)									
Alcohol	21,596	29.0%	22,117	29.4%	21,846	27.9%	20,217	26.9%	20,976	26.8%
Cocaine/Crack	10,622	14.3%	9,735	13.0%	8,641	11.0%	7,691	10.2%	7,311	9.3%
Heroin	9,542	12.8%	9,416	12.5%	10,459	13.4%	10,461	13.9%	11,469	14.7%
Prescription Opioids	6,002	8.1%	5,956	7.9%	5,625	7.2%	4,954	6.6%	4,759	6.1%
Methamphetamine**	6,479	8.7%	7,649	10.2%	10,217	13.0%	11,388	15.2%	12,461	15.9%
Marijuana	17,723	23.8%	17,241	23.0%	18,278	23.3%	17,426	23.2%	17,890	22.9%
Benzodiazepines	1,105	1.5%	1,482	2.0%	1,340	1.7%	1,259	1.7%	1,444	1.8%
MDMA	137	0.2%	100	0.1%	92	0.1%	90	0.1%	111	0.1%
Synthetic Stimulants	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	412	0.5%	491	0.7%	720	0.9%
Other Drugs/Unknown	1,230	1.7%	1,407	1.9%	1,389	1.8%	1,159	1.5%	1,132	1.4%

#### NOTES:

unavail: Data not available.

**SOURCE**: Data provided to the Texas NDEWS SCE by the Texas Department of State Health Services (DSHS).

<sup>\*</sup>Admissions: Includes all admissions reported to the Clinical Management for Behavioral Health Services (CMBHS) of the Department of State Health Services (DSHS). Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

<sup>\*\*</sup>Methamphetamine: Includes amphetamines and methamphetamine.

#### Table 4b: Demographic and Drug Use Characteristics of Primary Treament Admissions\* for Select Substances of Abuse, *Texas* Residents, 2015 Number of Admissions, by Primary Substance of Abuse and Percentage of Admissions with Selected Demographic and Drug Use Characteristics

	Primary Substance of Abuse															
	Alco	ohol	Cocaine	e/Crack	Her	oin	Prescription	on Opioids	Met ampheta		Mariji	uana		nzo- pines	Synt Cannabii	hetic noids***
	#	%		%	#	%	#	%	#	%	#	%	#	%	#	%
Number of Admissions (#)	20,976	100%	7,311	100%	11,469	100%	4,759	100%	12,461	100%	17,890	100%	1,444	100%	720	100%
Sex (%)																
Male		66.0%		50.0%		60.0%		46.0%		42.0%		59.0%		34.0%		70.0%
Female <sup>±</sup>		34.0%		50.0%		40.0%		54.0%		58.0%		31.0%		66.0%		30.0%
Race/Ethnicity (%)																
White, Non-Hisp.		56.0%		28.3%		61.0%		73.7%		77.6%		31.7%		69.5%		45.3%
African-Am/Black, Non-Hisp		12.0%		43.2%		7.3%		8.8%		17.4%		25.9%		4.2%		42.4%
Hispanic/Latino		30.0%		27.6%		30.8%		16.3%		3.5%		41.3%		26.3%		12.1%
Asian	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Other	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Age Group (%)																
18-25	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
26-44	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
45+	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Average Age	3	9	3	19	3	4	3	5	3:	3	2	4	3	0	2	4
Route of Administration (%	)															
Smoked		0.0%		57.3%		1.7%		1.9%		54.6%		98.0%		0.0%		0.0%
Inhaled		0.0%		38.3%		16.1%		0.0%		8.5%		0.0%		0.0%		0.0%
Injected		0.0%		3.3%		81.0%		27.0%		34.0%		0.0%		0.0%		0.0%
Oral/Other/Unknown		100.0%		1.1%		1.2%		66.0%		2.9%		2.0%		100.0%		98.0%
Secondary Substance (%)																
None	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Alcohol	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Cocaine/Crack	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Heroin	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Prescription Opioids	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Methamphetamine**	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Marijuana	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Benzodiazepines	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail

#### NOTES:

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.

SOURCE: Data provided to the Texas NDEWS SCE by the Texas Department of State Health Services (DSHS).

<sup>\*</sup>Admissions: Includes all admissions reported to the Clinical Management for Behavioral Health Services (CMBHS) of the Department of State Health Services (DSHS). Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

<sup>\*\*</sup>Methamphetamine: Includes amphetamines and methamphetamine.

<sup>\*\*\*</sup>DSHS collects data on "Other Cannabinoids", which may not include all the synthetic cannabinoids.

<sup>\*</sup>Female: Calculated using formula "1 minus Male %".

#### Table 5: Drug Overdose (Poisoning) Deaths\*, by Drug\*\* and Year, Texas, 2010-2014

Number, Crude Rate, and Age-Adjusted Rate\*\*\* (per 100,000 population)

		2010			2011			2012			2013			2014	
	Number (#)	Crude Rate	Age- Adjusted Rate												
Drug Overdose (Poisoning) Deaths	2,399	9.5	9.6	2,589	10.1	10.1	2,447	9.4	9.4	2,446	9.2	9.3	2,601	9.6	9.7
Opioids <sup>±</sup>	1,123	4.5	4.4	1,178	4.6	4.6	1,131	4.3	4.4	1,053	4.0	4.0	1,151	4.3	4.3
Heroin	260	1.0	1.0	368	1.4	1.4	367	1.4	1.4	369	1.4	1.4	425	1.6	1.6
Natural Opioid Analgesics	540	2.1	2.2	521	2.0	2.0	480	1.8	1.8	452	1.7	1.7	471	1.7	1.7
Methadone	180	0.7	0.7	179	0.7	0.7	142	0.5	0.6	128	0.5	0.5	116	0.4	0.4
Synthetic Opioid Analgesics	156	0.6	0.6	114	0.4	0.5	121	0.5	0.5	112	0.4	0.4	157	0.6	0.6
Benzodiazepines	385	1.5	1.5	315	1.2	1.2	323	1.2	1.2	299	1.1	1.1	331	1.2	1.2
Benzodiazepines <b>AND</b> Any Opioids	321	1.3	1.3	254	1.0	1.0	264	1.0	1.0	234	0.9	0.9	248	0.9	0.9
Benzodiazepines AND Heroin	29	0.1	0.1	36	0.1	0.1	42	0.2	0.2	27	0.1	0.1	43	0.2	0.2
Psychostimulants															
Cocaine	393	1.6	1.6	457	1.8	1.8	412	1.6	1.6	391	1.5	1.5	411	1.5	1.5
Psychostimulants with Abuse Potential	147	0.6	0.6	169	0.7	0.7	207	0.8	0.8	326	1.2	1.2	377	1.4	1.4
Cannabis (derivatives)	SUP	SUP	SUP	11	UNR	UNR									
Percent with Drugs Specified <sup>‡</sup>		74.8%			73.3%			74.7%			75.8%			76.4%	

#### NOTES:

<sup>†</sup>Opioids: Includes any of these MCOD codes T40.0-T40.4, or T40.6

Opium (T40.0); Heroin (T40.1); Natural Opioid Analgesics (T40.2)—may include morphine, codeine, and semi-synthetic opioid analgesics, such as oxycodone, hydrocodone, hydrocod

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 [excluding cocaine] (T43.6) (e.g., amphetamines, caffeine, MDMA, methamphetamine, and methylphenidate)

Cannabis (derivatives): (T40.7)

\*Percent of Drug Overdose (Poisoning) Deaths with Drug(s) Specified: Among drug overdose (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 1999-2014, available on the CDC WONDER Online Database, released 2015. Data compiled in the Multiple cause of death 1999-2014 were provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved between December 2015 - May 2016, from <a href="http://wonder.cdc.gov/mcd-icd10.html">http://wonder.cdc.gov/mcd-icd10.html</a>

<sup>\*</sup>Drug Overdose (Poisoning) Deaths: 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.

<sup>\*\*</sup>Drug Overdose (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. This is not a complete list of all drugs that may have been involved with these drug poisoning deaths.

<sup>\*\*\*</sup>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 <a href="http://wonder.cdc.gov/wonder/help/mcd.html">http://wonder.cdc.gov/wonder/help/mcd.html</a> for more information.

# Table 6a: Drug Reports\* for I tems Seized by Law Enforcement in *Texas* in 2015 **DEA National Forensic Laboratory Information System (NFLIS)**Number of Drug-Specific Reports and Percent of Total Analyzed Drug Reports

		Percent of
Drug Identified	Number (#)	Total Drug Reports* (#)
Total Drug Reports*	99,720	100.0%
METHAMPHETAMINE	32,290	32.4%
CANNABIS	19,551	19.6%
COCAINE	18,466	18.5%
HEROIN	3,947	4.0%
NO CONTROLLED DRUG IDENTIFIED	3,338	3.3%
ALPRAZOLAM	3,281	3.3%
HYDROCODONE	1,584	1.6%
AB-CHMINACA (N-[(1S)-1-(AMINOCARBONYL)-2-METHYLPROPYL]-1- (CYCLOHEXYLMETHYL)-1H-INDAZOLE-3-CARBOXAMIDE)	1,573	1.6%
PHENYLIMIDOTHIAZOLE ISOMER UNDETERMINED	1,118	1.1%
XLR-11 (1-(5-FLUOROPENTYL-1H-3-YL)(2,2,3,3-	935	0.9%
TETRAMETHYLCYCLOPROPYL)METHANONE)		
PHENCYCLIDINE	762	0.8%
3,4-METHYLENEDIOXYETHYLCATHINONE (ETHYLONE)	736	0.7%
AMPHETAMINE	729	0.7%
PROMETHAZINE	662	0.7%
CAFFEINE	643	0.6%
ACETAMINOPHEN	558	0.6%
CODEINE	489	0.5%
OXYCODONE	421	0.4%
5-FLUORO AMB	385	0.4%
UNKNOWN	327	0.3%
DIMETHYLSULFONE	296	0.3%
AB-PINACA	295	0.3%
CLONAZEPAM	283	0.3%
CARISOPRODOL	277	0.3%
2-(4-IODO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-I-NBOME)	273	0.3%
NM2201 (NAPHTHALEN-1-YL 1-(5-FLUOROPENTYL)-1H-INDOLE-3-CARBOXYLATE)	265	0.3%
5-FLUORO-ADB	248	0.2%
LIDOCAINE	232	0.2%
AB-FUBINACA	223	0.2%
TRAMADOL	213	0.2%
METHADONE	212	0.2%
MORPHINE	209	0.2%
PSILOCIN	188	0.2%
LISDEXAMFETAMINE	186	0.2%
3,4-METHYLENEDIOXYMETHAMPHETAMINE (MDMA)	179	0.2%
ETIZOLAM	169	0.2%
MAB-CHMINACA (ADB-CHMINACA)	150	0.2%
DIAZEPAM	134	0.1%
DIPHENHYDRAMINE	123	0.1%
BENZOCAINE	122	0.1%
TESTOSTERONE	118	0.1%
HYDROMORPHONE	113	0.1%
ALPHA-PYRROLIDINOPENTIOPHENONE (ALPHA-PVP)	103	0.1%

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Drug Identified	Number (#)	Percent of Total Drug Reports* (#)
3,4-METHYLENEDIOXYAMPHETAMINE (MDA)	102	0.1%
PB-22 (1-PENTYL-1H-INDOLE-3-CARBOXYLIC ACID 8-QUINOLINYL ESTER)	92	< 0.1%
5F-AB-PINACA	89	< 0.1%
GAMMA HYDROXY BUTYRATE	88	< 0.1%
BUPRENORPHINE	87	< 0.1%
METHYLPHENIDATE	83	< 0.1%
TRAZODONE	82	< 0.1%
CYCLOBENZAPRINE	79	< 0.1%
1-(3-TRIFLUOROMETHYL)PHENYL-PIPERAZINE (TFMPP)	69	< 0.1%
5F-PB-22 (1-(5-FLUOROPENTYL)-1H-INDOLE-3-CARBOXYLIC ACID 8-QUINOLINYL ESTER)	69	< 0.1%
NICOTINE	67	< 0.1%
QUETIAPINE	66	< 0.1%
IBUPROFEN	61	< 0.1%
ZOLPIDEM	59	< 0.1%
LORAZEPAM	55	< 0.1%
MDMB-FUBINACA	54	< 0.1%
GABAPENTIN	44	< 0.1%
BUSPIRONE	43	< 0.1%
FENTANYL	43	< 0.1%
2-(4-BROMO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-B-NBOMe)	42	< 0.1%
NALOXONE	42	< 0.1%
NAPROXEN	42	< 0.1%
SILDENAFIL CITRATE (VIAGRA)	42	< 0.1%
6-MONOACETYLMORPHINE	39	< 0.1%
AKB48 N-(5-FLUOROPENTYL)	39	< 0.1%
2-(4-CHLORO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-C-NBOME)	37	< 0.1%
GUAIFENESIN	36	< 0.1%
LYSERGIC ACID DIETHYLAMIDE (LYSERGIDE)	35	< 0.1%
METHOCARBAMOL	35	< 0.1%
DIMETHYLTRYPTAMINE (DMT)	34	< 0.1%
HYDROXYZINE	34	< 0.1%
4-CHLORO-2,5-DIMETHOXYAMPHETAMINE (DOC)	31	< 0.1%
TOLUENE	29	< 0.1%
FUB-PB-22 (QUINOLIN-8-YL-1-(4-FLUOROBENZYL)-1H-INDOLE-3-CARBOXYLATE)	28	< 0.1%
SDB-005	28	< 0.1%
PHENTERMINE	27	< 0.1%
UR-144 ((1-PENTYLINDOL-3-YL)-(2,2,3,3- TETRAMETHYLCYCLOPROPYL)METHANONE)	27	< 0.1%
KETAMINE	26	< 0.1%
DEXTROMETHORPHAN	25	< 0.1%
MELATONIN	25	< 0.1%
TIZANIDINE	24	< 0.1%
TEMAZEPAM	23	< 0.1%
NICOTINAMIDE	22	< 0.1%
TETRAHYDROCANNABINOLS	22	< 0.1%
AMITRIPTYLINE	21	< 0.1%
AMOXICILLIN	21	< 0.1%
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Drug I dentified	Number (#)	Percent of Total Drug Reports* (#)
FDU-PB-22 (NAPHTHALEN-1-YL 1-(4-FLUOROBENZYL)-1H-INDOLE-3- CARBOXYLATE)	21	< 0.1%
METHORPHAN	21	< 0.1%
ZOPICLONE	21	< 0.1%
SERTRALINE	20	< 0.1%
ASPIRIN	19	< 0.1%
5F-MDMB-PINACA	18	< 0.1%
N-METHYL-3,4-METHYLENEDIOXYCATHINONE (METHYLONE)	18	< 0.1%
TRENBOLONE	17	< 0.1%
AKB48 (N-(1-ADAMANTYL)-1-PENTYL-1H-INDAZOLE-3-CARBOXAMIDE)	16	< 0.1%
LACTOSE	16	< 0.1%
MITRAGYNINE	16	< 0.1%
NANDROLONE	16	< 0.1%
BARBITAL	15	< 0.1%
THJ 2201(1-(5-FLUOROPENTYL)-1H-INDAZOL-3-YL)(NAPHTHALEN-1-YL)METHANONE	15	< 0.1%
CANNABIDIOL	14	< 0.1%
FLUOXETINE	14	< 0.1%
HYDROCHLOROTHIAZIDE	14	< 0.1%
MDMB-CHMICA (MMB-CHMINACA)	14	< 0.1%
METHANDROSTENOLONE (METHANDIENONE)	14	< 0.1%
STANOZOLOL	14	< 0.1%
BUTYLONE (B-KETO-N-METHYLBENZO-DIOXYLPROPYLAMINE)	13	< 0.1%
DIBUTYLONE (BETA-KETO-N,N-DIMETHYL-1,3-BENZODIOXOLYLBUTANAMINE; BK-DMBDB)	13	< 0.1%
SYNTHETIC CANNABINOID	13	< 0.1%
TADALAFIL	13	< 0.1%
1,4-BUTANEDIOL	12	< 0.1%
CITALOPRAM	12	< 0.1%
OXYMORPHONE	12	< 0.1%
ACETYLFENTANYL	11	< 0.1%
BUTALBITAL	11	< 0.1%
METOPROLOL	11	< 0.1%
N-BENZYLPIPERAZINE (BZP)	11	< 0.1%
PHENACETIN	11	< 0.1%
PHENAZEPAM	11	< 0.1%
2-MAPB (N,A-DIMETHYL-2-BENZOFURANETHANAMINE)	10	< 0.1%
5-FLUORO NPB-22	10	< 0.1%
5-MAPB (1-(BENZOFURAN-5-YL)-N-METHYLPROPAN-2-AMINE)	10	< 0.1%
CLINDAMYCIN	10	< 0.1%
CLONIDINE	10	< 0.1%
MIRTAZAPINE	10	< 0.1%
NEGATIVE RESULTS - TESTED FOR SPECIFIC DRUGS	10	< 0.1%
PSEUDOEPHEDRINE CERUAL EVIAL	10	< 0.1%
CEPHALEXIN	9	< 0.1%
METFORMIN	9	< 0.1%
PSILOCYBINE	9	< 0.1%
CLONAZOLAM	8	< 0.1%
CLONAZOLAM	8	< 0.1%
MELOXICAM	8	< 0.1%
PHOSPHATE	8	< 0.1%

Drug I dentified	Number (#)	Percent of Total Drug Reports* (#)
PSILOCYBIN/PSILOCYN	8	< 0.1%
6-MAPB (1-(BENZOFURAN-6-YL)-N-METHYLPROPAN-2-AMINE)	7	< 0.1%
AMLODIPINE	7	< 0.1%
BACLOFEN	7	< 0.1%
BUPROPION	7	< 0.1%
CIPROFLOXACIN	7	< 0.1%
DEXMETHYLPHENIDATE	7	< 0.1%
FUB-144 ((1-(4-FLUOROBENZYL)-1H-INDOL-3-YL)(2,2,3,3- TETRAMETHYLCYCLOPROPYL)METHANONE)	7	< 0.1%
FUROSEMIDE	7	< 0.1%
MAM-2201 (1-(5-FLUOROPENTYL)-3-(4-METHYL-1-NAPHTHOYL)INDOLE)	7	< 0.1%
METHYLENEDIOXYPYROVALERONE (MDPV)	7	< 0.1%
PREDNISONE	7	< 0.1%
DROSTANOLONE	6	< 0.1%
ESCITALOPRAM	6	< 0.1%
LEVETIRACETAM	6	< 0.1%
LISINOPRIL	6	< 0.1%
MEPERIDINE	6	< 0.1%
OXANDROLONE	6	< 0.1%
AKB48 N-(4-FLUOROBENZYL)	5	< 0.1%
ALPHA-BENZYL-N-METHYLPHENETHYLAMINE (BNMPA)	5	< 0.1%
AM-2201 (1-(5-FLUOROPENTYL)-3-(1-NAPHTHOYL)INDOLE)	5	< 0.1%
ARIPIPRAZOLE	5	< 0.1%
BOLDENONE	5	< 0.1%
OLANZAPINE	5	< 0.1%
OPIUM	5	< 0.1%
PENICILLIN	5	< 0.1%
RANITIDINE	5	< 0.1%
RISPERIDONE (RISPERDAL)	5	< 0.1%
SULFAMETHOXAZOLE	5	< 0.1%
TRIMETHOPRIM	5	< 0.1%
4-METHYL-N-ETHYLCATHINONE (4-MEC)	4	< 0.1%
5-APDB (5-(2-AMINOPROPYL)-2,3-DIHYDROBENZOFURAN)	4	< 0.1%
DICYCLOMINE	4	< 0.1%
DIPHYLLINE	4	< 0.1%
DIPYRONE	4	< 0.1%
DOXEPIN	4	< 0.1%
ETHANOL	4	< 0.1%
ISOBUTYL NITRITE	4	< 0.1%
JWH-018 (1-PENTYL-3-(1-NAPHTHOYL)INDOLE)	4	< 0.1%
LAMOTRIGINE	4	< 0.1%
NIACINAMIDE	4	< 0.1%
NORTRIPTYLINE	4	< 0.1%
OXCARBAZEPINE	4	< 0.1%
PEYOTE	4	< 0.1%
PHENYLPROPANOLAMINE	4	< 0.1%
PREGABALIN	4	< 0.1%
TAPENTADOL	4	< 0.1%
4-HYDROXY-N-METHYL-N-ISOPROPYLTRYPTAMINE (4-OH-MIPT)	3	< 0.1%
ADD'L SUBSTAN.BELVD.PRESNT-NOT IDEN	3	< 0.1%
ADD E GODDININDEEVEN RECITI NOT IDEN		\$ 0.170

		Percent of
		Total Drug
Drug Identified	Number (#)	Reports* (#)
ALPHA-PYRROLIDINOHEXANOPHENONE (ALPHA-PHP)	3	< 0.1%
ANASTROZOLE	3	< 0.1%
ATOMOXETINE	3	< 0.1%
BENZODIAZEPINE	3	< 0.1%
BUTYRYL FENTANYL	3	< 0.1%
CARBAMAZEPINE	3	< 0.1%
CETIRIZINE	3	< 0.1%
CYPROHEPTADINE	3	< 0.1%
DICLOFENAC	3	< 0.1%
DOXYCYCLINE	3	< 0.1%
DOXYLAMINE	3	< 0.1%
ETODOLAC	3	< 0.1%
FLUCONAZOLE	3	< 0.1%
FUB-AMB	3	< 0.1%
LEVOCETIRIZINE	3	< 0.1%
MANNITOL	3	< 0.1%
METHOXETAMINE (MXE; 2-(3-METHOXYPHENYL)-2- (ETHYLAMINO)CYCLOHEXANONE)	3	< 0.1%
METRONIDAZOLE	3	< 0.1%
MONOACETYLMORPHINE	3	< 0.1%
MONTELUKAST SODIUM	3	< 0.1%
OMEPRAZOLE	3	< 0.1%
ONDANSETRON	3	< 0.1%
PAPAVERINE	3	< 0.1%
PHENYLEPHRINE HCL	3	< 0.1%
PROPOXYPHENE	3	< 0.1%
SUCRALFATE	3	< 0.1%
SYNTHETIC ANTICHOLINERGICS	3	< 0.1%
TAMOXIFEN	3	< 0.1%
VENLAFAXINE	3	< 0.1%
1,1-DIFLUOROETHANE	2	< 0.1%
2,5-DIMETHOXY-4-METHYLAMPHETAMINE (DOM)	2	< 0.1%
2,6-DIISOPROPOPYLPHENOL (PROPOFOL)	2	< 0.1%
2-FLUOROAMPHETAMINE (2-FA)	2	< 0.1%
AM2201 BENZIMIDAZOLE ANALOG	2	< 0.1%
AMANTADINE	2	< 0.1%
AMPICILLIN	2	< 0.1%
BARBITURIC ACID	2	< 0.1%
BENZPHETAMINE	2	< 0.1%
BROMPHENIRAMINE	2	< 0.1%
CEFDINIR	2	< 0.1%
CLEMASTINE FUMARATE	2	< 0.1%
CLOBENZOREX	2	< 0.1%
CLOMIPHENE	2	< 0.1%
DEXTROPROPOXYPHENE	2	< 0.1%
DIETHYLPROPION	2	< 0.1%
DILTIAZEM	2	< 0.1%
DIVALPROEX SODIUM	2	< 0.1%
FLUNITRAZEPAM	2	< 0.1%
GAMMA HYDROXY BUTYL LACTONE		
GAIVIIVIA TIDROAT DUTTE LACTUNE	2	< 0.1%

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		Percent of
		Total Drug
Drug Identified	Number (#)	Reports* (#)
GLIPIZIDE	2	< 0.1%
INDOMETHACIN	2	< 0.1%
INOSITOL	2	< 0.1%
JWH-250 (1-PENTYL-3-(2-METHOXYPHENYLACETYL)INDOLE)	2	< 0.1%
LORATADINE	2	< 0.1%
METHYLPREDNISOLONE	2	< 0.1%
METOCLOPRAMIDE	2	< 0.1%
NAXALONE	2	< 0.1%
OXYMETHOLONE	2	< 0.1%
PENTAZOCINE	2	< 0.1%
PENTYLONE (B-KETO-METHYLBENZODIOXOLYLPENTANAMINE)	2	< 0.1%
PHENAZOPYRIDINE	2	< 0.1%
PHENOBARBITAL	2	< 0.1%
PHENYTOIN	2	< 0.1%
PIPERINE	2	< 0.1%
RISPERDONE	2	< 0.1%
ROPINIROLE	2	< 0.1%
SALICYLIC ACID	2	< 0.1%
SIMVASTATIN	2	< 0.1%
SOLIFENACIN SUCCINATE	2	< 0.1%
1-PIPERIDINOCYCLOHEXANECARBONITRILE	1	< 0.1%
2-(4-ETHYL-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-E-		
NBOME)	1	< 0.1%
2,5-DIMETHOXY-4-ETHYLPHENETHYLAMINE (2C-E)	1	< 0.1%
4-BROMO-2,5-DIMETHOXYPHENETHYLAMINE (2C-B)	1	< 0.1%
5-EAPB (1-(BENZOFURAN-5-YL)-N-ETHYLPROPAN-2-AMINE)	1	< 0.1%
5-FLUORO ABICA	1	< 0.1%
5-METHOXY-N,N-DIMETHYLTRYPTAMINE (5-MEO-DMT)	1	< 0.1%
ADB-FUBINACA (N-(1-AMINO-3,3-DIMETHYL-1-OXOBUTAN-2-YL)-1-(4-	1	< 0.1%
FLUOROBENZYL)-1H-INDAZOLE-3-CARBOXAMIDE) ALPHA-PYRROLIDINOBUTIOPHENONE (ALPHA-PBP)	1	< 0.1%
ALPHA-PYRROLIDINOHEPTAPHENONE (PV8)	1	< 0.1%
ALPHA-PYRROLIDINOPENTIOTHIOPHENONE (ALPHA-PVT)	1	< 0.1%
ATENOLOL  ATENOLOL	1	< 0.1%
ATROPINE		
	1	< 0.1%
BORIC ACID  PREDICEDIONE (4 PROMOMETHICATHINIONE) (4 PMC)	1	< 0.1%
BREPHEDRONE (4-BROMOMETHCATHINONE) (4-BMC)		< 0.1%
BUFOTENINE	1	< 0.1%
BUPIVACAINE	1	< 0.1%
CANNABICHROMENE	1	< 0.1%
CANNABINOL	1	< 0.1%
CATHINONE	1	< 0.1%
CELECOXIB	1	< 0.1%
CETIRIZINE HCL	1	< 0.1%
CHLORZOXAZONE	1	< 0.1%
CITRIC ACID	1	< 0.1%
DEHYDROCHLORMETHYLTESTOSTERONE	1	< 0.1%
DEHYDROEPIANDROSTERONE	1	< 0.1%
DEXAMETHASONE	1	< 0.1%
DIACETAMIDE	1	< 0.1%

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		Percent of
Down Libraries of	November 200	Total Drug
Drug Identified	Number (#)	Reports* (#)
DIHYDROCODEINE  DIMETUW ONE (O. 4. METUW ENERGY ONE UNIONE LILL MERMA)	1	< 0.1%
DIMETHYLONE (3,4-METHYLENEDIOXYDIMETHYLCATHINONE; bk-MDDMA)	1	< 0.1%
DIPHENOXYLATE	1	< 0.1%
DIVALPROEX	1	< 0.1%
DRONABINOL	1	< 0.1%
DULOXETINE	1	< 0.1%
EFAVIRENZ	1	< 0.1%
ENALAPRIL	1	< 0.1%
EPHEDRINE	1	< 0.1%
ERYTHROMYCIN	1	< 0.1%
ESOMEPRAZOLE	1	< 0.1%
EXEMESTANE	1	< 0.1%
FLECAINIDE	1	< 0.1%
FLUOROAMPHETAMINE	1	< 0.1%
GLAUCINE	1	< 0.1%
HALOPERIDOL	1	< 0.1%
HYDRALAZINE	1	< 0.1%
HYDROCHLORIC ACID	1	< 0.1%
IMIPRAMINE	1	< 0.1%
ISONIAZID	1	< 0.1%
LITHIUM	1	< 0.1%
LITHIUM CARBONATE	1	< 0.1%
LOSARTAN POTASSIUM	1	< 0.1%
MECLIZINE	1	< 0.1%
MEDAZEPAM	1	< 0.1%
MENTHOL	1	< 0.1%
MEPIVACAINE	1	< 0.1%
MESCALINE	1	< 0.1%
META-CHLORPHENYLPIPERAZINE (MCPP)	1	< 0.1%
METAXALONE	1	< 0.1%
METHAQUALONE	1	< 0.1%
METHENOLONE	1	< 0.1%
METHIOPROPAMINE	1	< 0.1%
MINOCYCLINE	1	< 0.1%
MMB2201	1	< 0.1%
N,N-DIALLYL-5-METHOXYTRYPTAMINE (5-MEO-DALT)	1	< 0.1%
NABUMETONE	1	< 0.1%
NAPHAZOLINE	1	< 0.1%
N-ETHYLBUPHEDRONE	1	< 0.1%
NICOTINIC ACID	1	< 0.1%
NIMETAZEPAM	1	< 0.1%
NITRAZEPAM	1	< 0.1%
NITROGLYCERINE	1	< 0.1%
NOSCAPINE	1	< 0.1%
OXYMETAZOLINE	1	< 0.1%
PAROXETINE	1	< 0.1%
PERPHENAZINE	1	< 0.1%
PETHIDINE	1	< 0.1%
PHENDIMETRAZINE	1	< 0.1%
THENVINIETIME		V 0.170

Drug Identified	Number (#)	Percent of Total Drug Reports* (#)
POTASSIUM CHLORIDE	1	< 0.1%
PRASTERONE	1	< 0.1%
PROCAINE	1	< 0.1%
PROMAZINE	1	< 0.1%
PROPRANOLOL	1	< 0.1%
PROTONIX (PANTOPRAZOLE)	1	< 0.1%
PX 1 ((S)-N-(1-AMINO-1-OXO-3-PHENYLPROPAN-2-YL)-1-(5-FLUOROPENTYL)-1H-INDOLE-3-CARBOXAMIDE)	1	< 0.1%
SIBUTRAMINE	1	< 0.1%
SITAGLIPTIN	1	< 0.1%
SODIUM CHLORIDE	1	< 0.1%
SPIRONOLACTONE	1	< 0.1%
SUMATRIPTAN	1	< 0.1%
TETRAHYDROZOLINE	1	< 0.1%
THEBAINE	1	< 0.1%
TILETAMINE	1	< 0.1%
TOPIRAMATE	1	< 0.1%
TROPACOCAINE	1	< 0.1%
VALPROIC ACID	1	< 0.1%
VENLAFAXINE HCL	1	< 0.1%
ZOLAZEPAM	1	< 0.1%
ZONISAMIDE	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 to December 2015.

Additional Note About Reporting Labs: The Austin Police Department laboratory closed and no data were provided for 2015. The Houston Forensic Science Government Corporation (formerly Houston Police Department Crime Lab) lab was added in April 2014 and has been reporting data since then.

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 18, 2016.

# Table 6b: Drug Reports\* for Items Seized by Law Enforcement in *Texas* in 2015 DEA National Forensic Laboratory Information System (NFLIS)

Drug Reports\* by Select Drug Categories of Interest

Number of Drug-Specific Reports, Percent of Analyzed Drug Category Reports\*\*, & Percent of Total Analyzed Drug Reports

NPS Category Drug Identified	Number (#)	Percent of Drug Category** (%)	Percent of Total Reports (%)
Total Drug Reports*	99,720	100.0%	100.0%
Opioids Category	7,491	100.0%	7.5%
Heroin	3,947	52.7%	4.0%
Narcotic Analgesics	3,434	45.8%	3.4%
HYDROCODONE	1,584	21.1%	1.6%
CODEINE	489	6.5%	0.5%
OXYCODONE	421	5.6%	0.4%
TRAMADOL	213	2.8%	0.2%
METHADONE	212	2.8%	0.2%
MORPHINE	209	2.8%	0.2%
HYDROMORPHONE	113	1.5%	0.1%
BUPRENORPHINE	87	1.2%	< 0.1%
FENTANYL	43	0.6%	< 0.1%
MITRAGYNINE	16	0.2%	< 0.1%
OXYMORPHONE	12	0.2%	< 0.1%
ACETYLFENTANYL	11	0.1%	< 0.1%
MEPERIDINE	6	< 0.1%	< 0.1%
OPIUM	5	< 0.1%	< 0.1%
BUTYRYL FENTANYL	3	< 0.1%	< 0.1%
PROPOXYPHENE	3	< 0.1%	< 0.1%
DEXTROPROPOXYPHENE	2	< 0.1%	< 0.1%
PENTAZOCINE	2	< 0.1%	< 0.1%
DIHYDROCODEINE	1	< 0.1%	< 0.1%
PETHIDINE	1	< 0.1%	< 0.1%
THEBAINE	1	< 0.1%	< 0.1%
Narcotics	110	1.5%	0.1%
NALOXONE	42	0.6%	< 0.1%
6-MONOACETYLMORPHINE	39	0.5%	< 0.1%
METHORPHAN	21	0.3%	< 0.1%
MONOACETYLMORPHINE	3	< 0.1%	< 0.1%
PAPAVERINE	3	< 0.1%	< 0.1%
DIPHENOXYLATE	1	< 0.1%	< 0.1%
NOSCAPINE	1	< 0.1%	< 0.1%
Synthetic Cannabinoids Category	4,646	100.0%	4.7%
AB-CHMINACA (N-[(1S)-1-(AMINOCARBONYL)-2-METHYLPROPYL]-1- (CYCLOHEXYLMETHYL)-1H-INDAZOLE-3-CARBOXAMIDE)	1,573	33.9%	1.6%
XLR-11 (1-(5-FLUOROPENTYL-1H-3-YL)(2,2,3,3- TETRAMETHYLCYCLOPROPYL)METHANONE)	935	20.1%	0.9%
5-FLUORO AMB	385	8.3%	0.4%
AB-PINACA	295	6.3%	0.3%
NM2201 (NAPHTHALEN-1-YL 1-(5-FLUOROPENTYL)-1H-INDOLE-3- CARBOXYLATE)	265	5.7%	0.3%
5-FLUORO-ADB	248	5.3%	0.2%
AB-FUBINACA	223	4.8%	0.2%
MAB-CHMINACA (ADB-CHMINACA)	150	3.2%	0.2%
PB-22 (1-PENTYL-1H-INDOLE-3-CARBOXYLIC ACID 8-QUINOLINYL ESTER)	92	2.0%	< 0.1%
5F-AB-PINACA	89	1.9%	< 0.1%

NPS Category Drug Identified	Number (#)	Percent of Drug Category** (%)	Percent of Total Reports (%)
5F-PB-22 (1-(5-FLUOROPENTYL)-1H-INDOLE-3-CARBOXYLIC ACID 8- QUINOLINYL ESTER)	69	1.5%	< 0.1%
MDMB-FUBINACA	54	1.2%	< 0.1%
AKB48 N-(5-FLUOROPENTYL)	39	0.8%	< 0.1%
FUB-PB-22 (QUINOLIN-8-YL-1-(4-FLUOROBENZYL)-1H-INDOLE-3- CARBOXYLATE)	28	0.6%	< 0.1%
SDB-005	28	0.6%	< 0.1%
UR-144 ((1-PENTYLINDOL-3-YL)-(2,2,3,3- TETRAMETHYLCYCLOPROPYL)METHANONE)	27	0.6%	< 0.1%
FDU-PB-22 (NAPHTHALEN-1-YL 1-(4-FLUOROBENZYL)-1H-INDOLE-3- CARBOXYLATE)	21	0.5%	< 0.1%
5F-MDMB-PINACA	18	0.4%	< 0.1%
AKB48 (N-(1-ADAMANTYL)-1-PENTYL-1H-INDAZOLE-3-CARBOXAMIDE)	16	0.3%	< 0.1%
THJ 2201(1-(5-FLUOROPENTYL)-1H-INDAZOL-3-YL)(NAPHTHALEN-1- YL)METHANONE	15	0.3%	< 0.1%
MDMB-CHMICA (MMB-CHMINACA)	14	0.3%	< 0.1%
SYNTHETIC CANNABINOID	13	0.3%	< 0.1%
5-FLUORO NPB-22	10	0.2%	< 0.1%
FUB-144 ((1-(4-FLUOROBENZYL)-1H-INDOL-3-YL)(2,2,3,3- TETRAMETHYLCYCLOPROPYL)METHANONE)	7	0.2%	< 0.1%
MAM-2201 (1-(5-FLUOROPENTYL)-3-(4-METHYL-1-NAPHTHOYL)INDOLE)	7	0.2%	< 0.1%
AKB48 N-(4-FLUOROBENZYL)	5	0.1%	< 0.1%
AM-2201 (1-(5-FLUOROPENTYL)-3-(1-NAPHTHOYL)INDOLE)	5	0.1%	< 0.1%
JWH-018 (1-PENTYL-3-(1-NAPHTHOYL)INDOLE)	4	< 0.1%	< 0.1%
FUB-AMB	3	< 0.1%	< 0.1%
AM2201 BENZIMIDAZOLE ANALOG	2	< 0.1%	< 0.1%
JWH-250 (1-PENTYL-3-(2-METHOXYPHENYLACETYL)INDOLE)	2	< 0.1%	< 0.1%
5-FLUORO ABICA	1	< 0.1%	< 0.1%
ADB-FUBINACA (N-(1-AMINO-3,3-DIMETHYL-1-OXOBUTAN-2-YL)-1-(4- FLUOROBENZYL)-1H-INDAZOLE-3-CARBOXAMIDE)	1	< 0.1%	< 0.1%
MMB2201	1	< 0.1%	< 0.1%
PX 1 ((S)-N-(1-AMINO-1-OXO-3-PHENYLPROPAN-2-YL)-1-(5-FLUOROPENTYL)-1H-INDOLE-3-CARBOXAMIDE)	1	< 0.1%	< 0.1%
Synthetic Cathinones Category	905	100.0%	0.9%
Synthetic Cathinones	880	97.2%	0.9%
3,4-METHYLENEDIOXYETHYLCATHINONE (ETHYLONE)	736	81.3%	0.7%
ALPHA-PYRROLIDINOPENTIOPHENONE (ALPHA-PVP)	103	11.4%	0.1%
BUTYLONE (B-KETO-N-METHYLBENZO-DIOXYLPROPYLAMINE)	13	1.4%	< 0.1%
DIBUTYLONE (BETA-KETO-N,N-DIMETHYL-1,3-	13	1.4%	< 0.1%
BENZODIOXOLYLBUTANAMINE; BK-DMBDB)  4-METHYL-N-ETHYLCATHINONE (4-MEC)	4	0.4%	< 0.1%
ALPHA-PYRROLIDINOHEXANOPHENONE (ALPHA-PHP)	3	0.3%	< 0.1%
PENTYLONE (B-KETO-METHYLBENZODIOXOLYLPENTANAMINE)	2	0.3%	< 0.1%
ALPHA-PYRROLIDINOBUTIOPHENONE (ALPHA-PBP)	1	0.1%	< 0.1%
ALPHA-PYRROLIDINOHEPTAPHENONE (PV8)	1	0.1%	< 0.1%
ALPHA-PYRROLIDINOPENTIOTHIOPHENONE (ALPHA-PVT)	1	0.1%	< 0.1%
BREPHEDRONE (4-BROMOMETHCATHINONE) (4-BMC)	1	0.1%	< 0.1%
DIMETHYLONE (3,4-METHYLENEDIOXYDIMETHYLCATHINONE; bk-MDDMA)	1	0.1%	< 0.1%
N-ETHYLBUPHEDRONE	1	0.1%	< 0.1%
Synthetic Cathinones (Hallucinogen)	25	2.8%	< 0.1%
N-METHYL-3,4-METHYLENEDIOXYCATHINONE (METHYLONE)	18	2.0%	< 0.1%
METHYLENEDIOXYPYROVALERONE (MDPV)	7	0.8%	< 0.1%

NPS Category Drug Identified	Number (#)	Percent of Drug Category** (%)	Percent of Total Reports (%)
Phenethylamines (2C Series) (H) Category	355	100.0%	0.4%
2-(4-IODO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-I-NBOME)	273	76.9%	0.3%
2-(4-BROMO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-B-NBOMe)	42	11.8%	< 0.1%
2-(4-CHLORO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-C-NBOME)	37	10.4%	< 0.1%
2-(4-ETHYL-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (25-E-NBOME)	1	0.3%	< 0.1%
2,5-DIMETHOXY-4-ETHYLPHENETHYLAMINE (2C-E)	1	0.3%	< 0.1%
4-BROMO-2,5-DIMETHOXYPHENETHYLAMINE (2C-B)	1	0.3%	< 0.1%
Piperazines Category	81	100.0%	< 0.1%
Piperazines (Hallucinogen)	70	86.4%	< 0.1%
1-(3-TRIFLUOROMETHYL)PHENYL-PIPERAZINE (TFMPP)	69	85.2%	< 0.1%
META-CHLORPHENYLPIPERAZINE (MCPP)	1	1.2%	< 0.1%
Piperazines (Stimulant)	11	13.6%	< 0.1%
N-BENZYLPIPERAZINE (BZP)	11	13.6%	< 0.1%
Tryptamines Category	40	100.0%	< 0.1%
DIMETHYLTRYPTAMINE (DMT)	34	85.0%	< 0.1%
4-HYDROXY-N-METHYL-N-ISOPROPYLTRYPTAMINE (4-OH-MIPT)	3	7.5%	< 0.1%
5-METHOXY-N,N-DIMETHYLTRYPTAMINE (5-MEO-DMT)	1	2.5%	< 0.1%
BUFOTENINE	1	2.5%	< 0.1%
N,N-DIALLYL-5-METHOXYTRYPTAMINE (5-MEO-DALT)	1	2.5%	< 0.1%

#### NOTES:

Additional Note about Reporting Labs: The Austin Police Department laboratory closed and no data were provided for 2015. The Houston Forensic Science Government Corporation (formerly Houston Police Department Crime Lab) lab was added in April 2014 and has been reporting data since then.

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 18, 2016.

<sup>\*</sup>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 to December 2015.

<sup>\*\*</sup>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.

# National Drug Early Warning System (NDEWS) Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2016: 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.

# **Area Description Indicators**

American Community Survey (ACS): Population Estimates, by Demographic and Socioeconomic Characteristics

# **Overview and Limitations**

Data on demographic, social, and economic characteristics are based on 2010–2014 American Community Survey (ACS) 5-Year Estimates. The U.S. Census Bureau's ACS is a nationwide survey designed to provide communities with reliable and timely demographic, social, economic, and housing data on an annual basis. Although the main function of the decennial census is to provide counts of people for the purpose of congressional apportionment and legislative redistricting, the primary purpose of the ACS is to measure the changing social and economic characteristics of the U.S. population. As a result, the ACS does not provide official counts of the population in between censuses. Instead, the Census Bureau's Population Estimates Program will continue to be the official source for annual population totals, by age, race, Hispanic origin, and sex.<sup>a</sup>

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

## Sources

**Data Sources:** Adapted by the NDEWS Coordinating Center from data from the American Community Survey; 2010–2014 American Community Survey 5-Year Estimates; Tables DP02, DP03, and DP05; using American FactFinder; http://factfinder2.census.gov; Accessed on [5/24/2016]; U.S. Census Bureau.

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

# **Substance Use Indicators**

National Survey on Drug Use and Health (NSDUH): Substance Use Among Population 12 Years or Older

# **Overview and Limitations**

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

The **substate estimates** are derived from a hierarchical Bayes model-based small area estimation 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 to provide more precise estimates of substance use and mental health outcomes. [See 2012–2014 NSDUH Methods Report for more information about the methodolgy used to generate substate estimates]. Comparable estimates derived from the small area estimation procedure were also produced for the 50 states and the District of Columbia. We present these estimates for Maine and Texas. Because these data are based on 3 consecutive years of data, they are not directly comparable with the annually published state estimates that are based on only 2 consecutive years of NSDUH data.<sup>a</sup>

**Substate regions** 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 but 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 SCS are defined in the Notes sections of Tables 2a and 2b.<sup>a</sup>

# **Notes about Data Terms**

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

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

**Estimated #** is the estimated number of persons aged 12 years or older 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: <a href="http://www.samhsa.gov/data/population-data-nsduh/reports?tab=38">http://www.samhsa.gov/data/population-data-nsduh/reports?tab=38</a>; Accessed on [8/5/2016].

Overview/Methods/Limitations Sources: <sup>a</sup>Adapted by the NDEWS Coordinating Center from Substance Abuse and Mental Health Services Administration (SAMHSA), 2012–2014 National Surveys on Drug Use and Health: Guide to Substate Tables and Summary of Small Area Estimation Methodology. Rockville, MD 2016. Available at:

http://www.samhsa.gov/data/sites/default/files/NSDUHsubstateMethodology2014/NSDUHsubstateMethodology2014.html; Accessed on [8/5/2016].

# Youth Risk Behavioral Survey (YRBS): Substance Use Among Student Populations

# **Overview and Limitations**

The Youth Risk Behavior Surveillance System (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. YRBSS also was developed to provide comparable national, State, territorial, and large urban school district data as well as comparable data among subpopulations of youths (e.g., racial/ethnic subgroups) and to monitor progress toward achieving national health objectives. The YRBSS monitors six categories of priority health risk behaviors among youth and young adults: 1) behaviors that contribute to unintentional injuries and violence; 2) tobacco use; 3) alcohol and other drug use; 4) sexual behaviors that contribute to unintended pregnancy and sexually transmitted infections; 5) unhealthy dietary behaviors; and 6) physical inactivity. We have included selected drug and alcohol survey questions from the YRBSS.

One component of the Surveillance System is the school-based Youth Risk Behavior Survey (YRBS) which includes representative samples of high school students in the nation, States, tribes, and select large urban school district across the country. The ongoing surveys are conducted biennially; each cycle begins in July of the preceding even-numbered year (e.g., in 2010 for the 2011 cycle) when the questionnaire for the upcoming year is released and continues until the data are published in June of the following even-numbered year (e.g., in 2012 for the 2011 cycle).<sup>3</sup>

For States and large urban school districts, the YRBSs are administered by State and local education or health agencies. Each State, territorial, tribal, and large urban school district YRBS employs a two-stage, cluster sample design to produce a representative sample of students in grades 9–12 in its jurisdiction. All the data presented in these tables area based on weighted data. Weighted results are representative of all students in grades 9–12 attending public schools in each jurisdiction. According to CDC, "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."

**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 2009, approximately 4% of persons aged 16–17 years were not enrolled in a high-school program and had not completed high school.<sup>b</sup> The NHIS and Youth Risk Behavior Supplement conducted in 1992 demonstrated that out-of-school youths are more likely than youths attending school to engage in the majority of health-risk behaviors.<sup>c</sup>

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

# **Notes about Data Terms**

**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), 1991–2013 High School Youth Risk Behavior Survey Data. Available at <a href="http://nccd.cdc.gov/youthonline/">http://nccd.cdc.gov/youthonline/</a>. Accessed on [3/12/2015].

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

<sup>a</sup>Methodology of the Youth Risk Behavior Surveillance System— 2013 Report in the Centers for Disease Control and Prevention (CDC) March 1, 2013 Morbidity and Mortality Weekly Report (MMWR); 62(1). Available at <a href="http://www.cdc.gov/mmwr/pdf/rr/rr6201.pdf">http://www.cdc.gov/mmwr/pdf/rr/rr6201.pdf</a>. Accessed on [4/10/2015].

<sup>b</sup>Chapman C, Laird J, Ifill N, KewalRamani A. Trends in high school dropout and completion rates in the United States: 1972–2009 (NCES 2012–006). Available at <a href="http://nces.ed.gov/pubs2012/2012006.pdf">http://nces.ed.gov/pubs2012/2012006.pdf</a>. Accessed on [2/11/2013].

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

<sup>d</sup>Eaton DK, Lowry R, Brener ND, Grunbaum JA, Kann L. 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.

# **Treatment for Substance Use Disorders**

#### Treatment Admissions Data from Local Data Sources

#### **Overview and Limitations**

Drug treatment admissions data provide indicators of the health consequences of substance misuse and their impact on the treatment system. Treatment admissions 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 also 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.

Treatment admissions data are made available to the NDEWS Coordinating Center by the NDEWS Sentinel Community Epidemiologist for each SCS. Calendar year 2015 treatment admissions data were available for 10 of 12 SCSs. Calendar Year 2015 data were not available for the Chicago Metro SCS; Fiscal Year 2015 for Chicago (not entire Chicago metro area) is provided. No treatment data for the Atlanta Metro SCS was available for 2015. See below for site-specific information about the data.

# Site-Specific Notes about 2015 Treatment Data and Sources of the Data

# Atlanta Metro

Data Availability: Calendar year 2015 treatment data are not available for the Atlanta Metro SCS.

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, Pickents, Pike, Rockdale, Spalding, and Walton counties.

*Notes & Definitions:* 

Admissions: includes admissions to publicly-funded programs.

<u>Marijuana/Synthetic Cannabinoids:</u> 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: Only fiscal year data are available at this time.

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

**Notes & Definitions:** 

<u>Admissions</u>: 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).

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

Source: Data provided to the NDEWS Chicago SCE by the Illinois Department of Substance Use.

#### Denver Metro

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

# Notes & Definitions:

<u>Admissions</u>: Includes admissions 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.

<u>Prescription Opioids</u>: Includes nonprescription methadone and other opiates and synthetic opiates. <u>MDMA</u>: 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:** 

<u>Admissions</u>: Includes admissions to all 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.

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

Source: Data provided to the King County (Seattle Area) NDEWS SCE by the Washington State Department of Social and Health Services (DSHS), Division Behavioral Health and Recovery, Treatment Report and Generation Tool (TARGET).

# 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.

<u>Prescription Opioids</u>: 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 and 2014 data) and the California Department of Drug and Alcohol Programs (2011 and 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:

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

<u>Crisis Admissions</u>: 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.

<u>Prescription Opioids</u>: Includes nonprescription methadone, buprenorphine, other synthetic opiates, and OxyContin.

Benzodiazepines: Includes benzodiazepines, alprazolam, and rohypnol.

<u>Synthetic Stimulants</u>: 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 2016 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 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 4,810 in 2015. However, similar patterns of substance use were observed among those seeking treatment in 2014 and in 2015.

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** 

<u>Admissions</u>: 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, 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:

<u>Admissions</u>: Includes all admissions to programs receiving any public funds. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

<u>2011–2013</u>: Data for Palm Beach County is not available for 2011–2013, therefore, 2011–2013 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 and the Broward Behavioral Health Coalition.

## ❖ Texas

Notes & Definitions:

<u>Admissions</u>: Includes all admissions reported to the Clinical Management for Behavioral Health Services (CMBHS) of the Department of State Health Services (DSHS). 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.

<u>Synthetic Cannabinoids</u>: DSHS collects data on "other Cannabinoids," which may not include all the synthetic cannabinoids.

Females: Calculated using formula "1 minus Male %."

*Source:* Data provided to the Texas NDEWS SCE by the Texas Department of State Health Services (DSHS).

# Wayne County (Detroit Area)

Notes & Definitions:

<u>Admissions</u>: 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. <u>Synthetic Stimulants</u>: Includes amphetamines and synthetic stimulants; data suppressed to protect confidentiality.

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

#### Sources

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

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

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

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

https://www.drugabuse.gov/sites/default/files/cewgjune2014.pdf

# **Consequences of Drug Use Indicators**

# **Drug Overdose (Poisoning) Deaths**

# **Overview and Limitations**

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

The drug-specific poisoning deaths presented in the 2016 National Drug Early Warning System (NDEWS) reports are deaths that have been certified "as due to acute exposure to a drug, either alone or in combination with other drugs or other substances" (Goldberger, Maxwell, Campbell, & Wilford, p. 234)<sup>2</sup> and are identified by using the World Health Organization's (WHO's) *International classification of diseases, 10th Revision* (ICD-10)<sup>3</sup> **underlying cause-of-death** codes X40–X44, X60–X64, X85, and Y10–Y14. Drug-specific poisoning deaths are the subset of drug overdose (poisoning) deaths with drug-specific **multiple cause-of-death** codes (i.e., T-codes). For the definitions of specific ICD-10 codes, see the section titled *Notes About Data Terms*. Each death certificate may contain up to 20 causes of death indicated in the multiple cause-of-death (MCOD) field. Thus, the total count across drugs may exceed the actual number of dead persons in the selected population. Some deaths involve more than one drug; these deaths are included in the rates for each drug category.

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

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

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

Warner et al.<sup>5</sup> found that there was considerable variation in certifying the manner of death and the percentage of drug intoxication deaths with specific drugs identified on death certificates and that these variations across states can lead to misleading cross-state comparisons. Based on 2008–2010 data, Warner et al.<sup>5</sup> found that the percentage of deaths with an "undetermined" manner of death ranged from 1% to 85%. 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." The drug overdose (poisoning) deaths presented in the NDEWS tables include the various manner of death categories: unintentional (X40–X44); suicide (X60–X64); homicide (X85); or undetermined (Y10–Y14).

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

## **Notes About Data Terms**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Heroin (T40.1)

Methadone (T40.3)

Natural Opioid Analgesics (T40.2)

Please note the ICD-10 refers to T40.2 as *Other Opioids*; CDC has revised the wording for clarity: <a href="http://www.cdc.gov/drugoverdose/data/analysis.html">http://www.cdc.gov/drugoverdose/data/analysis.html</a>

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., state, and county resident populations. The year 2010 populations are April 1 modified census counts. The year 2011–2014 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)

5-Year Percent Change: Change in age-adjusted rate between 2010 and 2014.

**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 1999–2014*, available on the CDC WONDER Online Database, released 2015. Data compiled in the *Multiple cause of death 1999–2014* 

were provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved between December 16, 2015 and February 9, 2016, from http://wonder.cdc.gov/mcd-icd10.html

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

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

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

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

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

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

# **Availability Indicators**

# **Drug Reports from the National Forensic Laboratory Information System (NFLIS)**

# **Overview and Limitations**

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 DEA describes NFLIS as:

"a comprehensive information system that includes data from forensic laboratories that handle the Nation's drug analysis cases. The NFLIS participation rate, defined as the percentage of the national drug caseload represented by laboratories that have joined NFLIS, is currently over 97%. Currently, 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.<sup>a</sup>

# **Notes about Reporting Labs**

Reporting anomalies were identified in several NDEWS SCSs in 2015 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 were included in the counts.
- ❖ Texas: The Austin Police Department laboratory closed, and no data were provided for 2015. The Houston Forensic Science Government Corporation (formerly Houston Police Department Crime Lab) lab was added in April 2014 and has been reporting data since then.

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

**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. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

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—December 2015. Data were queried from the DEA's NFLIS Data Query System (DQS) on May 18, 2016 using drug item submission date.

Five new psychoactive substance (NPS) drug categories and Fentanyls 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 butyrl fentanyl).

A complete list of drugs included in the Other Fentanyls category that were reported to NFLIS during the January to December 2015 timeframe includes:

3-METHYLFENTANYL

ACETYL-ALPHA-METHYLFENTANYL

**ACETYLFENTANYL** 

Beta-HYDROXYTHIOFENTANYL

**BUTYRYL FENTANYL** 

P-FLUOROBUTYRYL FENTANYL (P-FBF)

P-FLUOROFENTANYL

# Sources

**Data Sources:** Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from NFLIS Data Query System (DQS) May 18, 2016.

Overview/Methods/Limitations Sources: <sup>a</sup>Adapted by the NDEWS Coordinating Center from U.S. Drug Enforcement Administration (DEA), Office of Diversion Control. (2016) National Forensic Laboratory Information System: Midyear Report 2015. Springfield, VA: U.S. Drug Enforcement Administration. Available at: <a href="https://www.nflis.deadiversion.usdoj.gov/DesktopModules/ReportDownloads/Reports/NFLIS\_MidYear2015.p">https://www.nflis.deadiversion.usdoj.gov/DesktopModules/ReportDownloads/Reports/NFLIS\_MidYear2015.p</a>