SUBSTANCE ABUSE TRENDS IN TEXAS: JUNE 2015
Preliminary

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ABSTRACT

**Methamphetamine** indicators are now as high or higher than they were before the pseudoephedrine ban. Since 2013, methamphetamine has been the drug most commonly reported by forensic laboratories, outranking both cocaine and cannabis. It is ranked by DEA as the #1 threat in the Dallas area, #2 in the Houston area, and #4 in the El Paso area. The P2P methamphetamine made in Mexico is increasingly pure and more potent with more reports by outreach workers of use by men who have sex with men and high-risk heterosexuals which will result in increases in STD and HIV. Customs and Border Patrol reports show the seizures along the Texas border in the western part of the border are up by 260 percent and up by 420 percent on the lower border. Methamphetamine dissolved in water is a method of importation into the U.S., where laboratories on the Texas side convert it back into Ice. The increased availability of the drug has led to a decrease in prices; an eight-ball that cost $400 in the summer of 2014 was selling for $225 in February 2015.

**Heroin** users are becoming younger and less likely to be people of color. Indicators have been rising and the increase of 352 percent in heroin seizures on the western part of the Border may point to a new supply chain to provide heroin to West Texas and New Mexico. The new Mexican “white” heroin transits through Texas to the East but it is not as potent as the South American white.

**Cocaine** indicators are low due to change in the international market with fewer coca bushes being grown in the Andes and more product diverted to Europe, but based on 2013-2014 forensic data showing increased amounts of cocaine being identified along the border, there may be increases in the supply of cocaine in the future.

The **cannabis** situation has been influenced by both supply and demand. Supply has seen market changes due to drought in Mexico, gang warfare, and increased border protection, which limited the availability of the Mexican cannabis. This led to increases in home-grown and hydroponic in Texas and now 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”.

The **synthetic cannabis** situation is marked by sporadic clusters of overdoses which may be due to amateur chemists mixing the drugs or bad batches of precursor chemicals. Given the large number of cases reported along the lower border, importation of chemicals from Mexico may be a factor. The chemical ingredients have changed from JWH varieties to AB-Chminaca, AB-Fubinaca, AB Pinaca, and PB-22, and spikes in overdoses continue with $5 sales by street dealers.
“Other Opiate” indicators are trending downward but pill mills remain a problem. Tramadol is not as abused in Texas as elsewhere, but with the rescheduling of hydrocodone to level II, there is the possibility that use will increase since it is a Schedule IV drug. Likewise, fentanyl abuse and misuse in Texas involves the transdermal patches, not fentanyl powder which is being mixed with the white South American heroin on the east coast.

MDMA/Ecstasy indicators are down but “Molly” has become more potent and dangerous drug with one death at Austin City Limits last fall.

PCP indicators are up, with more use now by females than males. The number of NFLIS toxicology lab items identified between 2006 and 2014 has tripled.

Phenethylamines—the number of 2-C and NBOME items reported by Texas forensic toxicology laboratories has more than tripled since 2012.

Cathinones—Users are shifting from mephedrone, methylone and pentedrone to ethylone.

Tryptamines—Use remains low

Piperazines—TFMPP is trending upward.

The Border—Differences in patterns of use are seen as students on the border report more use of cannabis, cocaine, and heroin while non-border report more use of methamphetamine; the same patterns of drug use are seen in the treatment admission data. Of concern is the finding that 68 percent of the phenethylamines such as MDA identified by laboratories in the state 2014 were found along the southern border.

STD-HIV-AIDS—2014 data are not available until July 1, 2015, but increasing reports from street outreach workers about risky sexual practices while using methamphetamine and reports of “blood shots” (injecting the blood of another user to maximize the amount of drug injected) could lead to future epidemics.

Area Description
The population of Texas in 2010 was 25,639,373 persons; with 45 percent White, 11 percent Black, 38 percent Hispanic, and 5 percent “Other.” The population is evenly divided among males and females, with 81 percent having a high school degree or higher. Unemployment was 5.2 percent, median income on 2013 inflation-adjusted dollars was $51,900, and 18 percent have income in the past year below the poverty level.

Illicit drugs continue to enter from Mexico through cities such as El Paso, Laredo, McAllen, and Brownsville, as well as through smaller towns along the border. The drugs then move northward for distribution through Dallas/Fort Worth and Houston. In addition, drugs move eastward from San Diego through Lubbock and from El Paso to Amarillo and Dallas/Fort Worth.

Data Sources

Data for this report include the following sources:

- Student substance use data for 2014 came from reports on the Texas School Survey of Substance Abuse: Grades 7–12, 2014, which was provided by Abigail

- **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 2014, 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, 2014. Analysis of the 2013 data was by Lesli San Jose of the DSHS Decision Support Program and by the author.
- **Information on drug mortality** through 2013 came from the Bureau of Vital Statistics, DSHS, courtesy of Lyudmila Baskin and Jessica Michael. These deaths are defined as “drug poisoning deaths,” which involve deaths with an underlying cause of poisoning from drug overdose or other misuse of drugs. The preliminary 2014 data will be added when available from DSHS.
- **Information on seized drugs identified by laboratory tests** came from forensic laboratories in Texas, which reported results from analyses of substances for 1998 through 2014 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 fourth quarter 2014 came from the Methamphetamine Profiling Program of DEA.
- **Price, trafficking, distribution, and supply information** was gathered from 2014 reports on Trends in the Traffic Report System from the Dallas, El Paso, and Houston Field Divisions (FDs) of the DEA.
- **Reports by users and street outreach workers** on drug trends for the last quarter of 2014 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 2013 were provided by Nicole Hawkins of DSHS; the 2014 data will be available after July 1, 2015. The June 2015 Current Trends report with final numbers on deaths, and hepatitis C virus (HCV), HIV, and AIDS data will be available at http://www.utexas.edu/research/cswr/gcatc/.
- **Data on kilograms seized on the Southwest Border** between 2010 and 2014 came from reports from the Customs and Border Protection agency of the Department of Homeland Security.
CURRENT AND EMERGING DRUG USE PATTERNS

Alcohol is the primary drug of abuse in Texas. In 2014, 51 percent of Texas secondary school students in grades 7–12 had ever used alcohol, and 25 percent had consumed alcohol in the last month. Of particular concern is heavy consumption of alcohol, or binge drinking, which is defined as drinking five or more drinks at one time. In 2014, 9 percent of all secondary students said that when they drank, they usually drank five or more beers at one time, and 9 percent reported binge drinking of liquor.

The 2013 YRBS reported that 67 percent of Texas high school students in grades 9–12 had ever drunk alcohol; 36 percent had drunk alcohol in the past month; and 21 percent had drunk five or more drinks in a row in the last month. In 2013, 22 percent of females and 25 percent of males reported binge drinking.

The 2012–2013 NSDUH estimated that 46.7 percent of all Texans age 12 and older had drunk alcohol in the past month, compared with 52.1 percent nationally. In 2012–2013, 6.7 percent of Texans age 12 and older were estimated to be alcohol dependent or abusers in the past year.

In 2014, 27 percent of all clients admitted to publicly funded treatment programs in Texas had a primary problem with alcohol (Appendix). The characteristics of alcohol admissions have changed over the years. In 1988, 82 percent of the clients were male, compared with 68 percent in 2013. The average age at admission increased from 33 to 39 year in the same time period.

The survey also found that the proportion of Texas high school seniors who had driven while drunk decreased from 29 percent in 1990 to 10 percent in 2014, but the percent who had driven while “high” from drugs exceeded the number driving drunk in 2012 (16 percent) and 2014 (11 percent).

New methods of using alcohol are being spread through social media, including Inhaling or “smoking” alcohol by pouring it over dry ice and by insertion of alcohol-soaked tampons to achieve a quick intoxication while avoiding calories. No reports of these methods have been received by the Texas poison control centers.

Cannabis indicators remained mixed (exhibit 1), but there have been significant changes in the source and methods of using the drug. Since 2012, supplies from Mexico have decreased due to a drought in Mexico, gang warfare, and increased border security, which resulted in a 19 percent decrease in kilograms seized in the West Texas border area between 2010 and 2014 and a 29 percent decrease on the South Texas border, according to Customs and Border Protection of the Department of Homeland Security.

<table>
<thead>
<tr>
<th># PCC Calls</th>
<th>% Treatment</th>
<th># Tox Items</th>
<th>% Ever Used</th>
<th>School Survey</th>
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With the decrease in Mexican imports, there has been an increase in indoor and
hydroponic grows in the state, and the National Institute on Drug Abuse (NIDA) Potency Monitoring Project has reported delta-9-tetrahydrocannabinol (THC) potency in combined U.S. marijuana and sinsemilla samples has increased from 3.06 percent in 1995 to 11.8 percent in 2014. DEA in 2015 is noting an increase in high-grade marijuana imported into Texas from Colorado.

The use of blunt cigars (cheap cigars split open with cannabis replacing the tobacco), flavored “papers”, and “cones” have driven the increase in the use of cannabis among secondary school students. Exhibit 2 shows the impact of blunt cigars after they appeared in Texas in 1993. Since then, rates have increased for all race/ethnic groups. By 2008, however, the levels for Whites and Hispanics were back to their 1992 levels, while the levels for Black students are still above the rates prior to the introduction of blunts. Use of electronic cigarettes (“vapes”) filled with tobacco or hash oil (“wax”, “shatter”, or “budder”) is popular and in 2014, out of 483 cases of human exposure to cannabis reported by the Texas poison centers, 8 involved exposure to marijuana brownies or cookies and 5 involved exposure to hash oil or “wax”, with 12 reporting use of marijuana dipped in formaldehyde.

The poison centers reported 483 cases involving cannabis, with 67 percent male and average age of 24.

Of the patients entering substance abuse treatment services, average age was 23 years, 68 percent were male, 42 percent were Hispanic, 31 percent were White, and 26 percent Black. Some 16 percent worked full time, 74 percent had legal problems, and they reported using for nine years prior to entering treatment.

Domestic cannabis in 2014 cost between $25 and $40 per ounce while Mexican cannabis cost between $10 and $60, and hydroponic cost between $250 and $2400 per ounce.

**Synthetic Cannabis** (cannabimimetics) are compounds that mimic delta-9-tetrahydrocannabinol (THC) but with different chemical structures, continue to be a problem. Many of the newer varieties cannot be identified in standard drug tests, so they are used by probationers, parolees, or persons required to submit to drug tests. On September 1, 2011, Texas banned many of the synthetic cannabinoids and the U.S. banned more on July 9, 2012.

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 have been available through gas stations and specialized stores, such as “head shops,” and marketed as herbal incense.

The 2014 Texas School Survey reported 41 percent of the students in grades 7-12 had never heard of synthetic marijuana, only 25
percent thought it would be impossible to obtain, and 10 percent thought it would be very easy to obtain. Some 7 percent of students had ever used it.

From 2010 through 2014, the Texas Poison Center Network received 2,995 calls involving human exposures to synthetic cannabis. Of the calls to the Texas poison centers, the age range was between 1 and 75 years; 45 percent were younger than 20 years; 77 percent were male; and 85 percent had either misused or abused the substance. Of these calls, 8 percent resulted in “major” or life-threatening conditions; four deaths from synthetic cannabinoids were reported to the Texas poison control centers between 2010 and 2014.

Symptoms associated with use of the cannabis homologs include tachycardia, respiratory issues, agitation, confusion, drowsiness, hallucinations, delusions, nausea and vomiting, ocular problems, and other problems. The substances may also produce withdrawal and dependence in users.

Based on the number of cases per month over this period, at times there have large spikes in number of cases, which may be due to local “recipes” for mixing the raw ingredients which produce serious side effects or mislabeled or unknown precursor chemicals imported into the U.S. The raw chemicals are shipped in from China or other sources and then mixed and placed in the little bags locally for sale. A recent indictment of a chain of head shops reported there was one “chemist” who was to teach others to mix chemicals, but he left and the owners started mixing them themselves. These “chemistry experiments” could be a factor in the sudden increases in spikes of the more serious cases. In addition, 12 percent of the 2014 items identified were in the South Texas region, which may be an indication of the drugs or the raw chemicals coming in from Mexico.

In 2014, 491 persons with a primary problem with synthetic cannabinoids entered Texas treatment programs, as compared to 156 in 2012. The average age was 24 years; 51 percent were White and 40 percent were Hispanic. Seventy percent were male, and 41 percent used the substance daily.

Exhibit 3 shows the number of synthetic cannabis items seized and analyzed between 2010 and 2014. The number of varieties of these synthetics increased from 6 in 2010 to 30 in 2014. In addition, the varieties of the drugs changed each year. In 2010, 99 percent of the exhibits were JWH varieties but less than 1 percent were JWH in 2014, when the most common varieties were AB-Fubinaca, AB-Pinaca, and PB-22.

HIV outreach workers report increasing use of synthetic cannabis with severe reactions, including psychotic breakdowns.

**Cocaine** indicators have decreased (exhibit 4). The changes are due to increasing demand for cocaine in Europe, production declines in the Andes, and the addition of levamisole, a filler that can increase the
volume and dilute the potency of the cocaine. HIV/AIDS outreach workers report some crack users are transitioning to methamphetamine because it is more available and the “high” lasts longer. However, cocaine no longer dominates the forensic data; it ranked as the #1 drug identified by the laboratories from 1997 to 2008; it now ranks third, behind methamphetamine and cannabis.

There has been a 32 percent decrease in kilograms of cocaine seized on the West Texas Border from 2010 to 2014 and a 33 percent decrease on the South Texas Border, according to Customs and Border Protection. However, in the forensic laboratories which serve the Lower Border (McAllen and Laredo), cocaine was the most common drug identified in 2014. This trend may be an early indication that the supply of cocaine may be increasing with more cocaine items identified although the weight in kilograms has decreased.

Cocaine (both crack and powder) represented 10 percent of all admissions to DSHS-funded treatment programs in 2014, down from 35 percent in 1995. The characteristics of persons admitted to treatment in 2014 are shown in exhibit 5.

Notice crack cocaine smokers are the oldest and most likely to be Black, while cocaine inhalers are the youngest and most likely to be Hispanic.

A gram of powder cocaine cost between $20 and $150 and an ounce cost $300-$1,600 in 2014. A rock of crack cocaine cost $10-$100 and an ounce cost $550-$1,600.

**Heroin** use is growing among teenagers and young adults. This was first noticed 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 now report use of “Mexican Queso” which is heroin, Xanax®, and Excedrin PM®. In addition, the proportion of White treatment admissions has increased from 44 percent in 1986 to 59 percent in 2014. Heroin use is growing among teenagers.
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 extremely rare. Heroin indicators document a 352 percent increase in kilograms of heroin seized on the West Texas Border and a 14 percent decrease on the South Texas Border, according to Customs and Border Protection. 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.

Calls to the Texas Poison Center Network involving exposures to heroin peaked at 327 in 2014 (exhibit 6). The average age of those seeking assistance was 31 years and 70 percent were male.

The characteristics of heroin users in treatment varied by route of administration, as exhibit 7 illustrates. Over time, the proportion of White admissions has increased from 44 percent in 1986 to 59 percent in 2014; 77 percent reported no secondary drug of abuse in 2014. Most heroin addicts entering treatment inject the drug; smoking black tar heroin is very rare in Texas because the chemical composition tends to flare and burn rather than smolder. While the number of individuals who inhale heroin was small, the lag period between first use and seeking treatment for this group was 8 years, compared with 12 years for injectors. This shorter lag period means that, contrary to the street rumors that “sniffing or inhaling is not addictive,” inhalers can become dependent on heroin and enter treatment sooner while still inhaling. Alternatively, they will shift to injecting—increasing their risk of hepatitis C and HIV infection, becoming more impaired, and entering treatment later. The average age of those who died from heroin declined from 40 years in 2008 to 36 years in 2014, which is evidence of the increasing use by young adults. Of the 2014 deaths, 60 percent involved only heroin and 14 percent also involved cocaine; 58 percent were White, 36 percent Hispanic, and 6 percent Black.

A gram of black tar heroin cost $60--$225; a kilogram cost $20,000 to $80,000, and Mexican brown, which is black tar turned into powder, cost $90-100 for a gram and $160-$1600 per ounce in 2014.

**Other Opioids**

The “other opioids” group excludes heroin but includes drugs such as methadone;
codeine; hydrocodone (Vicodin®, Tussionex®); oxycodone (OxyContin®, Percodan®, Percocet-5®, Tylox®); buprenorphine; hydromorphone (Dilaudid®); morphine; meperidine (Demerol®); tramadol (Ultram®); and opium. The term “synthetic narcotic” refers to drugs such as fentanyl and dilaudid that are not made from natural materials but from chemicals.

A 2014 report from the Centers for Disease Control and Prevention compared the rates of prescribing and dispensing opioid pain relievers among the states in 2012. The mean rate for all the states for opioid pain relievers was 83 per 100 persons, as compared to 74 per 100,000 persons in Texas. The rate for prescribing long-acting/extended–release opioid pain relievers, which should be taken only 2 to 3 times a day, was 10 nationally and 4 in Texas. The rate for prescribing high-dose opioid pain relievers which resulted in a total daily dosage of 100 morphine milligram equivalents was 4 nationally and 2 in Texas, and the rate for prescribing benzodiazepines was 38 nationally and 30 in Texas.¹

Abuse of codeine cough syrup sweetened with jelly beans dissolved in a soft drink continues; this phenomenon has been popularized by rap music that celebrates “sippin’ syrup.” The marketing of soft drinks that imitate the codeine cough syrup pattern, such as “Lean” and “Drank,” remained a concern. Codeine is also used to lace synthetic cannabis cigarettes.

Tramadol is not as abused in Texas as elsewhere, but with the rescheduling of hydrocodone to level II, there is the possibility that use of tramadol will increase, since it is more available as a Schedule IV drug. Likewise, fentanyl abuse and misuse involves the transdermal patches, not fentanyl powder which is being mixed with the white South American heroin on the east coast. Exhibit 8 shows the indicators in the use of various opioids. Of the poison center cases, average age of a buprenorphine case was 28 years, for hydrocodone, 36 years, for methadone, 38 years, and for oxycodone, 35 years.

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. Nine percent of all clients who entered publicly funded treatment during 2014 had a primary problem with opioids other than heroin, compared with 1 percent in 1995. The Appendix shows users of these various opioids differed in their characteristics. They tended to be White; between 31 and 35 years of age; and, other than for buprenorphine and codeine, were more likely to be female. Persons younger than 30 years comprise 37 percent of the treatment admissions for other opiates.

Poisoning deaths involving “methadone,” “other opiates,” and “other synthetic narcotics” are classified based on the International Classification of Diseases (ICD) categories and, other than methadone, they do not provide details on the specific opiate drug involved.
The DEA reported prescriptions from Houston pain management clinics were filled in pharmacies as far north as Oklahoma, as far east as Alabama, and as far west as El Paso. Pill crews continued to recruit “patients” to fraudulently obtain multiple prescriptions from pain clinics.

The number of reports of opioids from items analyzed by forensic laboratories has decreased over time due to rescheduling of hydrocodone to Schedule II, creating abuse-resistant tables to deter crushing and inhaling, public information campaigns about abuse of prescription drugs, education for prescribers, and efforts to decrease pill mills (exhibit 8).

**Carisoprodol (Soma®)** is not an opiate but it is often abused in combination with hydrocodone and alprazolam as the “Houston Cocktail” or “Holy Trinity.” Texas poison control centers confirmed that exposure cases of intentional misuse or abuse of this muscle relaxant increased from 83 in 1998 to 114 cases in 2014; the average age was 38 years.

Forensic laboratory exhibits identified as carisoprodol have fluctuated. The numbers of items identified were 1,047 in 2006 and dropped to 556 in 2014.

**Benzodiazepines** include diazepam (Valium®), alprazolam (Xanax®), flunitrazepam (Rohypnol®), clonazepam (Klonopin® or Rivotril®), flurazepam (Dalmane®), lorazepam (Ativan®), and chlordiazepoxide (Librium® and Librax®). Rohypnol® is the benzodiazepine flunitrazepam, which was never approved for use in the United States. The drug is legal...
in Mexico, but since 1996, it has been illegal to bring it into the United States.

Exhibit 9 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.

“Pills” can be pharmaceutical-grade stimulants, such as dextroamphetamine, Dexedrine®, Adder-all®, Concerta®, Vyvanse®, Ritalin® (methylphenidate), or phentermine, or they can be methamphetamine powder that has been pressed into tablets and sold as amphetamines, “Yaba”, ecstasy, or synthetic cathinones. Stimulant pills can be taken orally, crushed for inhalation, or dissolved in water for injection.

Amphetamine-Type Substances and Emerging Psychoactive Substances

Amphetamine-type substances come in different forms and with different names. This section provides the latest Texas data on a range of “speedy-type” substances, including MDMA (3,4-methylenedioxy-methamphetamine, ecstasy); 2 C-xx phenethylamine drugs designed in the 1980s as replacements for MDMA; piperazines such as BZP (1-benzylpiperazine) and TFMPP (1-(3-trifluoro-2methylphenyl) piperazine), which can produce an ecstasy-like effect if taken in combination; synthetic cathinones, which are synthetic versions of the khat plant in Africa; amphetamines; and methamphetamine. Other psychoactive substances, such as phencyclidine (PCP), which often result in similar effects, are also reported in this section.
methamphetamine being imported into the U.S.

Ninety-one percent of the methamphetamine is now produced from the phenyl-2-propanone (P2P) method which is used in Mexico where it is a legal chemical. During this period, the average purity was 96.3 percent, and the average potency was 88.3 percent. According to DEA’s Trends in Trafficking Reports, methamphetamine is the #1 drug threat in the Dallas area, with it being #2 in the Houston district, and #4 in El Paso.

While pharmaceutical-grade amphetamines are quite different from the illegally manufactured methamphetamine, some reporting systems, such as the treatment data system, do not distinguish between them. However, the forensic laboratories reported in 2014 that there were 26,371 reports of methamphetamine among items analyzed in Texas (97 percent), compared with 736 reports for amphetamine (3 percent).

Of the 2014 Texas poison control cases, 366 involved methamphetamine; the average age was 29 years. There were also 172 cases involving pharmaceutical amphetamines or phentermine; the average age was 23 years, which shows the problems with misuse of these drugs by children and youths.

Methamphetamine/amphetamine admissions to treatment programs increased from 3 percent of all admissions in 1995 to 11 percent in 2007, dropped to 8 percent in 2009, and then rose to 15 percent of admissions in 2014 (exhibit 11). Unlike most other drug categories, 59 percent of the clients entering treatment were female. Clients with a primary problem with methamphetamine reported secondary problems with cannabis and alcohol.

27 percent of all items analyzed. In 2013 and 2014, methamphetamine is the drug most often identified in forensic laboratories in the state. Amphetamine was present in less than 1 percent of the drug reports of items examined in 2014.

HIV outreach workers in the state reported methamphetamine use was “spiking” among men who have sex with other men and by high-risk heterosexuals along the entire Texas border, and it had 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” 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.

Laboratories on the U.S. side of the border are used to convert liquid methamphetamine into crystal methamphetamine. Liquid methamphetamine,
which often looks like an icy sludge, can be concealed in a variety of ways, including hidden in windshield wiper reservoirs and gas tanks, or contained within commercial product packaging such as shampoo bottles, beer bottles, or other liquid containers and then distributed throughout the Midwest and Northeast including major metropolitan areas such as Atlanta.

The increased availability of methamphetamine has led to decreased prices. In the summer of 2014, an eight-ball cost $400; in February, 2015, it cost $225. Cost of a gram of powder methamphetamine was $80-$150, and a kilogram cost $350-$2,500. An ounce of ice cost $375 to $1,600 and a kilogram of ice cost $4,300-$20,000.

**MDMA (Ecstasy) and MDA and Molly** are classified as “other phenethylamines” (MDMA - 3,4 Methylene-dioxy-methamphetamine) or “amphetamine phenethylamines” (MDA - 3,4-Methylene-dioxyamphetamine (MDA), 5-APB (5-(2-aminopropyl)benzofuran, etc.) and indicators of use have varied over time, as exhibit 12 shows. After 2009, an ecstasy drought began due to the shortage of the raw ingredient, safrole oil, and the amount of MDMA identified in pills such as “Molly” began dropping. However, the European Monitoring Centre for Drugs and Drug Addiction reported in February 2014 that tablets with “dangerously high” levels of MDMA were appearing in Europe, followed by deaths at music festivals in New York City, Canada, and at Austin City Limits in September 2014.

“Molly” was originally a slang term for a very pure crystalline form of MDMA. Given the shortage of MDMA in 2013, laboratories that test for MDMA report that the drug that is sold as Molly actually contained 4-MEC (4-Methyl-N-Ethylcathinone), cocaine, MDA (3, 4-methylenedioxyamphetamine), mephedrone, or methylone. Molly is often sold in a powder-filled capsule or in an Eppendorf tube, which is a small pipette. Because of the scarcity of MDMA, most Molly capsules contain little MDMA, and research has shown that mephedrone and methylone act on the brain like MDMA.²

The Texas Poison Center Network reported a high of 310 calls in 2009 involving misuse or abuse of ecstasy, compared with 128 in 2014. Of the 2014 MDMA calls, 30 used the term “Molly”. Average age of the 2014 MDMA cases was 23 years.

In 2014, there were 90 MDMA treatment admissions with an average age of 26 years. MDMA is often used in combination with other drugs such as cannabis, alcohol, or cocaine.

Forensic laboratories identified MDMA in 1,626 exhibits in 2006, as compared with 149 in 2014. MDA was identified in 268 exhibits in 2006 and 122 in 2014. Twenty-three percent of the “other phenethylamine” (MDMA) items identified were in the Central Texas (Austin) area and in the Houston area; 7 percent were in the Lower Rio Grande Valley. Of the “amphetamine
phenethylamine” (MDA), 68 percent were identified by laboratories in the Lower Rio Grande Valley. The high prevalence of these cases in the Valley may be an indication of importation of these drugs or their raw chemicals from Mexico.

**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 psychoactive drugs, it is included in this section because the reactions from its use are often compared with the serious reactions to synthetic cathinones. Additionally, because of the difficulty in quickly identifying cathinones, there may be confusion as to which drug is actually being seen on the street, based on reports from street outreach workers and emergency personnel.

As exhibit 13 shows, abuse of PCP is growing and the characteristics of the users have changed: in 2001, 73 percent were male, but in 2014, only 38 percent were male.

The number of poison control center cases involving PCP declined from 290 in 2008 to 217 in 2014; the average age in 2014 was 33 years.

Exhibit 13 shows an increase in the number of clients entering treatment statewide with a primary problem with PCP, from 487 in 2008 to 726 in 2014. Of the clients in 2014, 84 percent were Black; 53 percent were involved in the criminal justice system; and 10 percent were employed full-time (Appendix).

The number of PCP items identified by forensic laboratories tripled from 273 in 2006 to 813 in 2014.

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 2C drugs with a third letter of E, C, I, P, and T.

The Texas Poison Control Network reported 15 cases of a 2C and/or N-BOME drugs in 2014. 2 C-xx can be inhaled or dissolved into a liquid and placed on blotter paper under the tongue. Its effects may last 6–10 hours; onset takes 15–120 minutes. Street outreach workers report the 2-C drugs and DMT (dimethyltryptamine) pose problems because they are white or creamy crystalline in appearance, and it is difficult to tell what the drug is.

### Other Club Drugs and Party Drugs

**Phenethylamines (2 C-xx)** are a broad range of abused compounds that share a common phenylethan-2-amine structure. Some are naturally occurring neurotransmitters (dopamine and epinephrine), while others are psychoactive stimulants (amphetamine, including MDA), entactogens (MDMA), or hallucinogens (the 2 C-xx series of compounds).
Forensic laboratories reported that in Texas in 2014, there were 532 reports of a 2C-xx drugs, as compared to 24 in 2012, and 264 2C-NBOME items as compared to 75 in 2012. Sixty-four percent of the samples were from the Houston region.

**DXM (Dextromethorphan)** products include Robitussin-DM®, Tussin®, and Coricidin Cough and Cold Tablets HBP®, which can be purchased as over-the-counter drugs and can produce hallucinogenic effects if taken in large quantities. Coricidin HBP® pills are known as “Triple C” or “Skittles.”

The 2014 Texas school survey reported that 4 percent of secondary students indicated they had ever used DXM to get high. Highest past-month use was among students in the eighth grade.

The Texas Poison Center Network reported the number of abuse and misuse cases involving DXM increased from 99 in 1998 to 480 in 2014. The average age of these cases was 17. The number of cases involving abuse or misuse of Coricidin HBP® was 288 in 2006 and 178 in 2014; the average age in 2014 was 19 years.

Forensic laboratories analyzed 15 substances in 2006 that were DXM items, as compared with 82 in 2014.

**GHB (Gamma Hydroxy Butyrate), GBL (Gamma Butyrate Lactone), and 1, 4-BD (1-4-Butanediol)** cases of misuse or abuse reported to the Texas Poison Center Network totaled 43 in 2006, 99 in 2009, and 10 in 2014. There were 3 cases involving Xyrem® out of 61 cases classified as GHB in 2013 and 14 Xyrem® out of 40 GHB in 2014. Xyrem®, which is a prescription version of GHB used to treat people who fall asleep frequently during the day, often at unexpected times (narcolepsy).

In 2014, 8 clients were admitted to DSHS-funded treatment with a primary problem with GHB; their average age was 36 years. Some 63 percent were White, and 62 percent were female (Appendix)

There were 97 items identified by forensic laboratories as being GHB, GBL, or 1, 4 Butanediol in 2006, compared with 73 in 2014.

**Ketamine** abuse is low. Three cases of misuse or abuse of ketamine were reported to the Texas Poison Center Network in 2006, compared with 1 each in 2007, 2008, and 2009; 3 in 2010; 7 in 2011; 10 in 2012, 6 in 2013, and 4 in 2014.

In 2006, 161 substances were identified as ketamine by forensic laboratories and 4 in 2014.

**LSD and Other Hallucinogens.** The 2014 Texas secondary school survey showed that use of hallucinogens (defined as LSD, PCP, or mushrooms) continued to decrease. Lifetime use peaked at 7.4 percent in 1996 and dropped to 2.6 percent in 2014.

The Texas Poison Center Network reported 33 mentions of abuse or misuse of LSD in 2006, compared with 88 in 2014. There were 96 cases of human exposure to mushrooms in 2006 and 87 in 2014. The average age in 2014 was 18 years for the LSD cases and 26 years for mushroom cases.

Of the 95 hallucinogen treatment admissions in 2014, the average age was 29 years; 72 percent were male; and 56 percent were involved in the criminal justice system. Another 30 individuals entered treatment with a primary problem with LSD. The average age was 23 years; 77 percent were male; and 63 percent were involved in the criminal justice system. For both groups, marijuana was the second
most common drug of abuse.

Forensic laboratories identified 34 substances as LSD in 2006, compared with 14 in 2014.

**Piperazines**

BZP (1-benzylpiperazine) has pharmacological effects that are qualitatively similar to those of amphetamine. It is a Schedule I drug that can be taken in combination with TFMPP (1-(3-trifluoromethylphenyl)piperazine), a non-controlled substance, in order to enhance its effects as a substitute for MDMA. It is generally taken orally, but it can be smoked or inhaled. Piperazines are a broad class of chemicals that include several stimulants, such as BZP and TFMPP, as well as antivertigo agents (cyclizine, meclizine) and other drugs (e.g., sildenafil/Viagra®).

The Texas forensic laboratories analyzed 7 TFMPP exhibits in 2007 and 112 in 2014. Forty-eight percent of the items were submitted in the Public Health Region covering Dallas-Fort Worth, with 11 percent from the Austin region.

**Synthetic Cathinones**

Emerging psychoactive substances include the substituted or synthetic cathinones such as ethylone, 4-Methyl-N-Ethylcathinone (4-MEC), Alpha-Pyrrolidinopentiophenone (Alpha-PVP), and penterone, as well as hallucinogenic cathinones such as methedrone, Methyleneoxypyrovalerone (MDPV), and methylene. They are synthetic derivatives from the khat plant and are part of the phenethylamine structural class.

Final orders to temporarily schedule these drugs under the Federal Controlled Substances Act went into effect on July 9, 2012, March 7, 2013, and March 7, 2014, and synthetic cathinones were controlled under Penalty Group 2 in Texas beginning on September 1, 2011, with additional scheduling as recently as April 24, 2015.

These drugs are usually supplied as white crystalline powders, although they also are available in tablet form. They are sold over the Internet and through “head shops,” convenience stores, gas stations, tattoo parlors, and truck stops. They are often labeled as “bath salts,” “plant food,” or “insect repellant.” Their street names include “bubbles,” “snow,” “bath salts,” “M-cat,” and “meow.” They are usually ingested or inhaled, and they are reported to produce euphoria, increased energy, empathy, talkativeness, and intensification of sensory experiences, as well as sexual arousal. There is no information on the contents or dosing instructions, and the ingredients may vary from package to package.

The Texas Poison Center Network data show the number of human exposures to synthetic cathinones peaked in 2011 (exhibit 3). Between 2010 and 2014, 15 percent of the cases were younger than 20 years, with an age range of 12–67 years. Three-quarters were male; 87 percent intended to abuse or misuse the drug; 43 percent inhaled it and 31 percent swallowed it, and common symptoms included tachycardia, hypertension, agitation, confusion, and hallucinations. For 48 percent of the cases, a moderate effect was reported (patient returns to pre-exposure state). For 12 percent 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 2014.

The forensic laboratories in Texas identified 156 reports from drug items that were synthetic cathinones in 2010 and 625 in 2014 (exhibit 3). In 2010, there were 5 variations of the cathinones, compared with 15 varieties in 2011, 28 in 2012, 15 in
2013, and 19 in 2014. Mephedrone, methylone, and pentedrone, which were more common in the past, have been replaced with ethylone as the more prevalent variety in 2014. Thirty-two percent of the items were submitted in the Austin region, with 25 percent from the Houston region.

_Tryptamines (Psilocybin, Psilocybin, and DMT)_

Psilocybin and psilocin ("magic mushrooms") are naturally occurring psychedelics with a long history of human use. Both are present in "psychedelic" or "magic" mushrooms. Psilocybin, the better known of these two chemicals, is metabolized after ingestion into psilocin, which is the primary active chemical. These two drugs are in the tryptamine family, which are hallucinogenic and are found in plant sources and toad and shamantic brews, such as the ayahuasca brew. Other tryptamines include Dimethyltryptamine (DMT) and Alpha-Methyltryptamine.

In 2006, there were 96 cases of human exposure to hallucinogenic mushrooms reported by Texas poison centers, compared to 87 in 2014. The average age of these cases in 2014 was 26 years, and 74 percent were male. There were 77 tryptamine (33 were DMT) cases in 2014.

There were also four treatment admissions in 2014. The average age was 35 years; 100 percent were White; and 100 percent were male.

Forensic laboratories reported 151 psilocin items, 9 psilocybin/psilocin items and 1 psilocybine item in 2014 as well as 33 DMT items. Some 44 percent of the tryptamine items were submitted from the Dallas-Fort Worth region.

**Other Abused Substances**

**Inhalants**

The 2014 Texas secondary school survey reported that 12 percent of students in grades 7–12 had ever used inhalants, and 4 percent had used in the past month. Inhalant use has a peculiar age pattern not observed with any other substance. The prevalence of lifetime and past-month inhalant use was higher in the lower grades and lower in the upper grades. This decrease in inhalant use as students age may be partially related to the fact that some inhalant users drop out of school early and are not in school in later grades to participate in later surveys. In addition, the Texas school surveys have consistently found that eighth and ninth graders reported use of more kinds of inhalants than any other grade, which may be a factor that exacerbates the damaging effects of inhalants and leads to dropping out of school.

Whiteout/correction fluid/magic markers and helium/butane/whippits/freon were the inhalants most commonly used. The 2013 YRBS reported that 9.5 percent of Texas high school students had ever used inhalants, compared with 13.9 percent in 2001. Inhalant abusers represented 0.1 percent of the admissions to treatment programs in 2014 (Appendix).

**Abuse Patterns on the Texas–Mexico Border**

Exhibit 14 shows the lifetime prevalence of use of different drugs by Texas secondary school students. Border students were more likely to report use of Rohypnol®, cocaine or crack, and MDMA/ecstasy than non-border students.

When asked which substances were very easy to obtain, border students were more likely than non-border students to report
Rohypnol®, cocaine or crack, and MDMA/ecstasy. Both groups reported powder cocaine was easy to obtain, as was crack cocaine.

Different patterns were also seen in border and non-border admissions to DSHS-funded treatment in 2014 (exhibits 15 and 16). Border clients were more likely to report problems with cannabis, cocaine, and heroin. Non-border clients were more likely to report more use of methamphetamine.

Reports from the three forensic laboratories on the border show different trafficking patterns. All three laboratories reported the amount of cocaine examined had increased substantially, which could point to a potential return of a larger supply of cocaine.

In Laredo in 2012, 48 percent of the drug reports were cannabis and 21 percent were cocaine; in 2014, cannabis had dropped to 28 percent and cocaine had increased to 37 percent. In McAllen, in 2012, 50 percent of the items were cocaine and 23 percent were cannabis; in 2014, 62 percent were cocaine and 16 percent cannabis. The picture was different in El Paso. In 2012, 50 percent was cannabis and 29 percent cocaine. In 2014, 68 percent was cannabis and 18 percent cocaine.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE (to be updated after 7/1/2015)

Hepatitis C

Hepatitis C virus (HCV) is the leading cause of liver failure and liver transplantation in the United States, and injection drug users (IDUs) are particularly susceptible to this disease (with as many as 70 percent or more of this population testing positive for the virus). In addition, many IDUs have little, if any, consistent health care and are largely unaware of their HCV infection status. Those who are successful in accessing health care and are diagnosed with hepatitis C are rarely offered antiviral treatment. If they are offered HCV treatment, they often face additional treatment challenges, since many suffer from mental health disorders and/or HIV in addition to HCV and drug addiction. Street outreach
workers are reporting increasing numbers of HCV-positive cases, particularly among younger population, and “blood shots” were occurring, with intravenous users shooting up each other’s blood to maximize the amount of drug injected into their systems.

The Texas DSHS reported in 2014 that there was 18 HCV cases statewide and the HCV incidence rates per 100,000 Texans was highest for those ages 19-29 years, at 0.3.

**Sexually Transmitted Diseases**

Street outreach workers were reporting increasing numbers of syphilis cases among young males engaging in homosexual activity, along with reports of both males and females selling their bodies for drugs or to obtain money for other needs, including food and housing. 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 GRNDR and Jack’d.

The case rates for chlamydia were higher for females than males, highest for persons between 20 and 24 years, and highest for Blacks. The case rates for gonorrhea were highest for females and for those between 20 and 24 years. The case rates for syphilis were higher for males, for Blacks, and for those between 20-24 and 25-29 years of age.

**AIDS Cases**

The proportion of AIDS cases among men who have sex with men (MSM) decreased from 81 percent in 1987 to 49 percent in 1999 before rising to 59 percent in 2013 (exhibit 17). Of the 2013 cases, 27 percent reported heterosexual mode of exposure, and 10 percent were IDUs. The proportions of AIDS cases involving IDUs or IDUs/MSM have decreased over time, and the proportion of IDUs entering DSHS-funded treatment programs has also decreased, from 32 percent in 1988 to 16 percent in 2014.

Persons infected with AIDS were increasingly likely to be people of color. Of the AIDS cases in 2013, 42 percent were Black; 22 percent were White; and 36 percent were Hispanic (exhibit 18).

## APPENDIX. Characteristics of Clients at Admission to DSHS-Funded Treatment Programs: 2014

| PRIMARY_SUBSTANCE                  | Total  | % of All Admissions | Average Age (Yrs) | 1st Use to Admit (Yrs) | % Black | % White | % Hispanic | % Male | % Inject | % Use Daily | % Work Full Time | % No Legal Problems | Av. Yrs. School |
|------------------------------------|--------|---------------------|-------------------|------------------------|---------|---------|------------|--------|----------|-------------|-----------------|------------------|-----------------|---------------|
| All Drugs                          | 75136  |                     |                   |                        |         |         |            |        |          |             |                 |                  |                 |               |
| Aerosols                           | 17     | 0.0                 | 34                | 7                      | 59      | 29      | 35         | 35     | 0        | 35          | 53              | 47              | 12.1            |
| Alcohol                            | 20217  | 27.0%               | 39                | 23                     | 12      | 56      | 30         | 68     | 0        | 38          | 22              | 47              | 12.0            |
| Amphetamine/Methamphetamine        | 11389  | 15.2%               | 32                | 13                     | 3       | 79      | 17         | 41     | 35       | 27          | 11              | 49              | 11.5            |
| Benzodiazepines                    | 105    | 0.1%                | 32                | 9                      | 11      | 5       | 21         | 35     | 6        | 46          | 9               | 45              | 12.0            |
| Buprenorphine                      | 28     | 0.0%                | 32                | 3                      | 90      | 71      | 7          | 66     | 75       | 68          | 75              | 13.4            |
| Cocaine                            | 3843   | 5.1%                | 36                | 14                     | 28      | 24      | 47         | 51     | 6        | 17          | 18              | 44              | 11.3            |
| Codeine                            | 99     | 0.1%                | 32                | 10                     | 51      | 34      | 13         | 75     | 17       | 17          | 14              | 26              | 11.5            |
| Cough Syrup                        | 38     | 0.1%                | 28                | 11                     | 50      | 42      | 87         | 13     | 16       | 13          | 16              | 34              | 11.9            |
| Crack                              | 3848   | 5.1%                | 43                | 17                     | 15      | 29      | 55         | 49     | 0        | 35          | 7               | 55              | 11.4            |
| Dilaudid (Hydromorphone)           | 188    | 0.3%                | 35                | 8                      | 3       | 90      | 7          | 45     | 81       | 54          | 10              | 61              | 11.8            |
| GHB/GBL                            | 8      | 0.0%                | 36                | 13                     | 63      | 38      |            |        |          |             |                 |                 | 11.8            |
| Hallucinogens                      | 95     | 0.1%                | 29                | 9                      | 30      | 47      | 20         | 72     | 29       | 14          | 44              | 11.7            |
| Heroin                             | 10461  | 14.0%               | 34                | 12                     | 6       | 59      | 34         | 61     | 81       | 77          | 6               | 67              | 11.5            |
| Inhalants                          | 6      | 0.0%                | 33                | 15                     |         |         | 83         | 100    | 83       |             |                 |                 | 11.0            |
| Klonopin (Clonazepam)              | 58     | 0.1%                | 35                | 9                      |         |         | 85         | 10     | 38       | 66          | 71              | 12.5            |
| LSD                                | 30     | 0.0%                | 23                | 7                      |         |         | 79         | 18     | 77       | 30          | 13              | 37              | 11.2            |
| MDMA                               | 90     | 0.1%                | 26                | 6                      | 39      | 36      | 26         | 53     | 9        | 9           | 18              | 40              | 11.5            |
| Marijuana/Hashish                  | 17426  | 23.3%               | 23                | 9                      | 26      | 31      | 42         | 68     | 0        | 21          | 16              | 26              | 10.7            |
| Mescaline                          | 11     | 0.0%                | 23                | 9                      |         |         | 36         | 72     |          |             |                 |                 | 10.6            |
| Methamphetamine                   | 8990   | 12.0%               | 32                | 11                     | 3       | 79      | 17         | 41     | 34       | 29          | 11              | 47              | 11.5            |
| Opiates and Synthetics             | 1733   | 2.3%                | 34                | 11                     | 5       | 76      | 19         | 43     | 21       | 58          | 11              | 65              | 12.2            |
| Other Cannabinoids                | 491    | 0.7%                | 24                | 3                      | 8       | 51      | 40         | 70     | 41       | 10          | 42              | 10.8            |
| Other Drugs                        | 123    | 0.2%                | 31                | 5                      | 10      | 47      | 42         | 64     | 51       | 9           | 62              | 11.6            |
| Oxycodone                          | 323    | 0.4%                | 33                | 8                      | 2       | 80      | 15         | 50     | 9        | 57          | 14              | 70              | 12.5            |
| PCP (Phencyclidine)                | 726    | 1.0%                | 32                | 11                     | 84      | 10      | 5          | 38     | 23       | 10          | 47              | 11.3            |
| Psilocybin Mushrooms               | 4      | 0.0%                | 35                | 15                     |         |         | 100        | 100    | 0        |             |                 |                 | 14.3            |
| Ritalin (Methylphenidate)          | 8      | 0.0%                | 31                | 10                     |         |         | 76         | 25     |          |             |                 |                 | 11.8            |
| Rohypnol (Flunitrazepam)           | 14     | 0.0%                | 16                | 2                      |         |         | 100        | 43     | 29       |             |                 |                 | 8.9             |
| Solvents (Paint Thinner, Gas)      | 6      | 0.0%                | 31                | 13                     |         |         | 100        | 33     | 83       |             |                 |                 | 10.0            |
| Special K (Ketamine)               | 25     | 0.0%                | 27                | 3                      |         |         | 63         | 30     | 68       |             |                 |                 | 11.4            |
| Stimulants                         | 13     | 0.0%                | 29                | 10                     |         |         | 85         | 69     | 38       | 38          | *               | 38              | 12.8            |
| Ultram (Tramadol)                  | 48     | 0.1%                | 37                | 5                      | 86      | 86      | 86         | 46     | 73       | 27          | 96              | 12.5            |
| Valium (Diazepam)                  | 20     | 0.0%                | 42                | 6                      |         |         | 86         | 45     | 40       |             |                 |                 | 12.1            |
| Vicodin (Hydrocodone)              | 2583   | 3.5%                | 35                | 10                     | 8       | 75      | 15         | 36     | 1        | 61          | 12              | 67              | 12.2            |
| Xanax (Alprazolam)                 | 1062   | 1.4%                | 28                | 8                      | 14      | 55      | 29         | 38     | 0        | 36          | 8               | 45              | 11.4            |