SUBSTANCE ABUSE TRENDS IN TEXAS: AUGUST 2016

BY

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NDEWS National Drug Early Warning System

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National Drug Early Warning System (NDEWS) Sentinel Community Site Profile

Texas SCS Profile

By Jane C. Maxwell, Ph.D.

- **Benzodiazepine** indicators have remained fairly stable but the number of deaths has increased. Alprazolam is the most abused benzodiazepine.
- 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.
- 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."
- 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.
- 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. "Other opiate" 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 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 is 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 1052 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.

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.

Drug 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®).

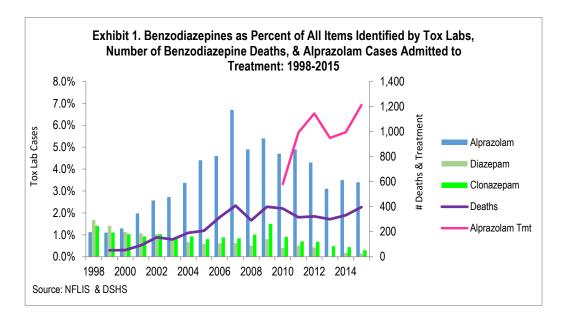


Exhibit 1, with data retrieved from the National Forensic Laboratory Information System (NFLIS) and the Texas Poison Center Network, shows the most popular benzodiazepine items identified in forensic laboratories in Texas, as well as the number of deaths and number of treatment admissions for alprazolam.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

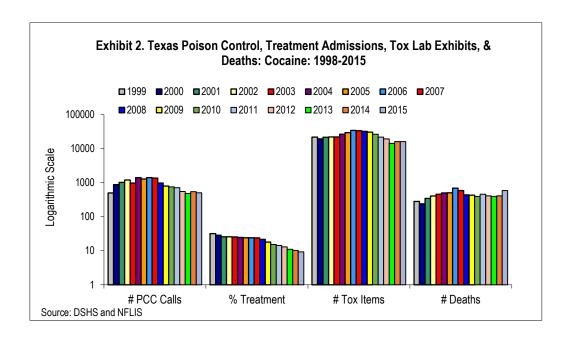
Counterfeit alprazolam from China and India was found by DEA in the Houston area in 2015.

Diphenhydramine or etizolam had been put through pill presses to produce tablets that resembled alprazolam.

COCAINE/CRACK

• 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 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).

Cocaine (both crack and powder) represented 9% of all admissions to DSHS-funded treatment programs 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.

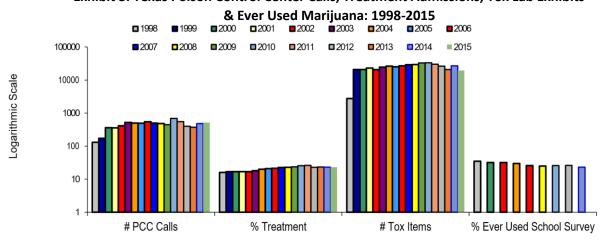


Exhibit 3. Texas Poison Control Center Calls, Treatment Admissions, Tox Lab Exhibits

Sources: Texas School Survey of Drug and Alcohol Use, Texas Poison Centers, Texas Department of State Health Services, NFLIS

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.

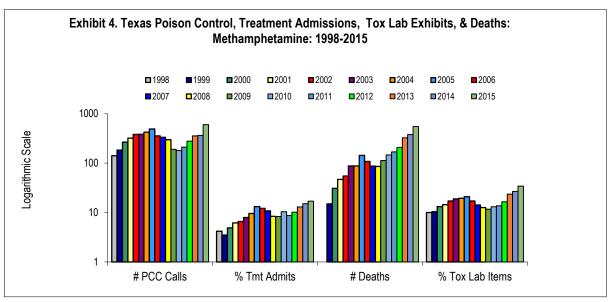
METHAMPHETAMINE

• 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%.



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

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 (33%), and inhaling (9%).

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 that 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 back into crystal rocks that are then distributed throughout the Midwest and Northeast, including major metropolitan areas such as Atlanta.

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 is 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.

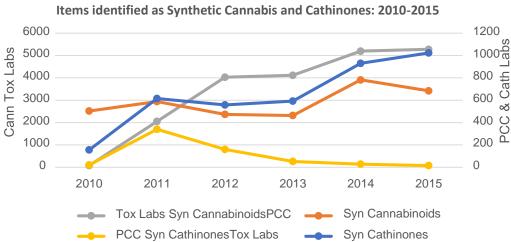


Exhibit 5. Texas Poison Control Center (PCC) Cases and Toxicology Laboratory

Items identified as Synthetic Cannabis and Cathingnes: 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.

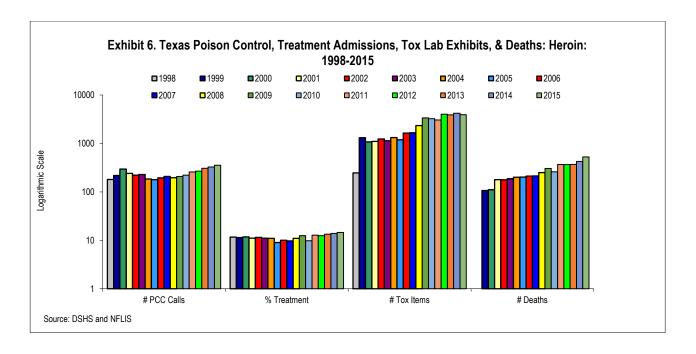
The forensic laboratories in Texas identified 156 drug items that were synthetic cathinones in 2010 and 1023 in 2015 (Exhibit 5). In 2010, there were 5 different variations of the cathinones compared with 15 varieties in 2011, 28 in 2012, 15 in 2013, 19 in 2014, and 18 in 2015. Ethylone was the most 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.

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.



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 C	ases of A	buse and	d Misuse													
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	t Admissi	ons															
Methadone ^a	69	44	52	75	86	63	91	101	113	160	145	132	180	193	170	178	167
"Other Opiates'	815	890	1,386	2084	2794	3433	3482	3903	4529	5221	5844	2679	2047	1851	1972	1923	1685
Codeine ^a													109	102	81	99	110
Hydrocodone ^a													3102	3277	2972	2583	2272
Hydromorphon	ıe ^a												222	275	211	188	195
Oxycodone													342	323	326	323	282
Deaths with Mer	ntion of S	ubstanc	e (DSHS) ^b	,												
Other Opioids	123	164	228	322	374	371	412	585	533	462	559	564	540	504	483	494	482
Synthetic Narc	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 Id	lentified	by Foren	sic Toxic	ology La	boratorie	s (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 C	Controlle	d Substa	nces by	Manufact	urer (AR	COS)-Do	sage/100	K Texas	Population	on							
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

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 1052 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 **2**003 **■**1998 **■**1999 **■**2000 **■**2001 **2**002 **■**2004 **■**2005 **■**2006 **■**2007 **2008 2009 2010 2011 2012 2013 2014** 1200 1000 800 600 400 200 # Treatment # Tox Items Examined

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

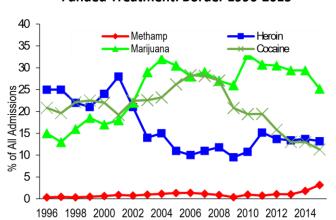
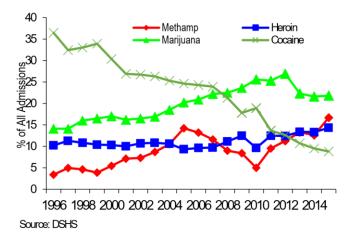


Exhibit 10. Admissions to Texas DSHS-Funded Treatment: Nonborder 1996-2015



Infectious Diseases Related to Substance Abuse

Hepatitis C

Source: DSHS

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

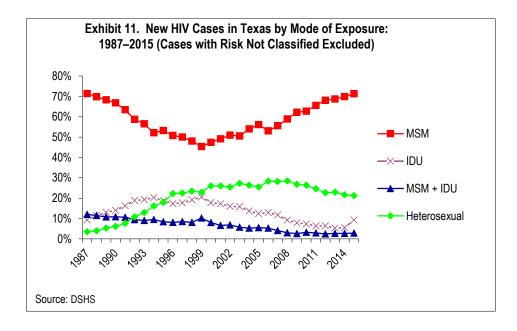
Street outreach workers were reporting increasing numbers of syphilis cases among young men who have sex with men, along with reports of both males and females engaging in transactional sex for drugs or to obtain money. There were more reports of people using the Internet and classified ads to market 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.

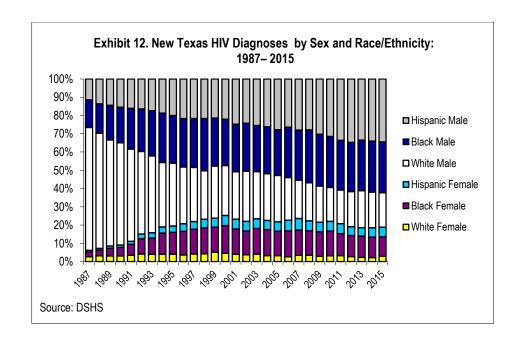
The 2015 case rates statewide for chlamydia increased from 364.1 in 2007 to 487.3 in 2015. They were higher for females than for males, highest for persons between 20 and 24 years of age, and highest for Blacks in 2015. The case rates for gonorrhea increased from 134.8 in 2007 to 136.7 in 2015 and they 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 71% 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).





Appendix

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/Psuedo- ephedrine	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 http://apps.nccd.cdc.gov/youthonline/App/Default.aspx?SID=HS.

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.

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