Exhibit 4. Characteristics of Patients Who Received Addiction Treatment Services in the Twin Cities Area, by Primary Substance Problem, Minneapolis/St. Paul: 2011

TOTAL ADMISSIONS[1] *N*=20,811	ALCOHOL 49.2% (*n*=10,240)	MARIJUANA 16.6% (*n*=3,464)	COCAINE 5.2% (*n*=1,083)	METHAMPHET-AMINE 6.4% (*n*=1,326)	HEROIN 10.7% (*n*=2,223)	OTHER OPIATES 9.5% (*n*=1,987)
GENDER						
% Male	67.4	78.4	63	63	68	53.4
% Female	32.9	21.6	37	37	32	46.6
RACE/ETHNICITY						
% White	74.4	56.6	35.9	82.2	67.5	81.9
% African-American	14.2	27.1	50.1	2	20.9	4.2
% American Indian	3.4	3.1	4.1	3.2	5.4	7.8
% Hispanic	3.9	6.3	5.8	4.2	3.7	2.6
% Asian-Pacific Islander	1.5	1.5	1.3	6.2	1	1.7
% Other	2.7	5.5	2.8	2.1	1.6	1.8
AGE						
% 17 and Younger	1.6	32.4	0.6	1.1	0.8	2.5
% 18–25	16.9	36.9	7.7	24.1	41.6	27.3
% 26–34	23.2	17.9	18.5	39.4	24.5	34.7
% 35 and Older	58.3	12.8	73.2	35.4	33.1	35.5
ROUTE of ADMINISTRATION						
% Oral/Multiple	100	1.8	0	3.7	0.9	65.8
% Smoking	0	97.9	75.2	72	8.7	5.4
% Snorting/Inhalation	0	0	20.6	6.3	24.4	15.3
% Injection	0	0	1.4	16.4	64.7	12.1
% Unknown	0	0.3	2.9	1.5	1.2	1.4

[1]Excludes 360 cases (1.7 percent) with "other" primary substance problems, and 128 (0.6 percent) unknown.
SOURCE: Drug and Alcohol Abuse Normative Evaluation System (DAANES), Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, 2012

Exhibit 5. Number of Drug-Related Deaths, by County, Minneapolis/St. Paul: 2002–2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Hennepin County										
Methamphetamine	11	15	19	10	8	6	9	6	9	7
Cocaine	34	44	39	50	48	59	21	10	25	28
Opiates	59	50	47	60	69	67	84	77	65	84
Ramsey County										
Methamphetamine	3	10	9	7	6	7	5	7	4	3
Cocaine	11	10	10	12	13	11	10	11	7	6
Opiates	18	10	25	42	27	39	31	36	27	36

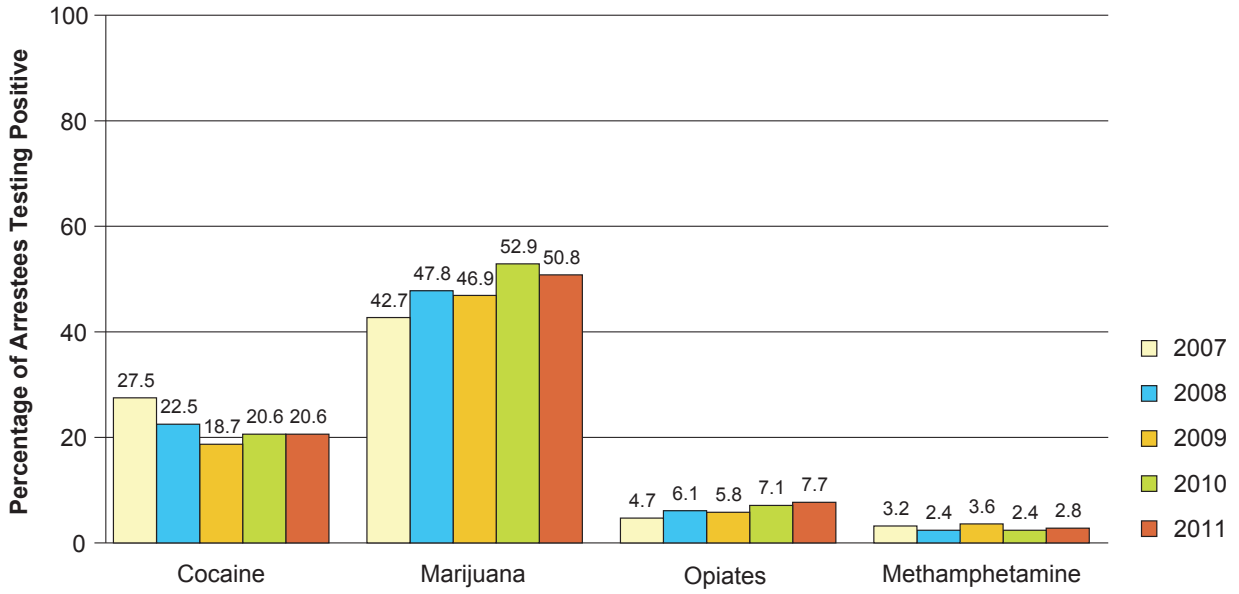
SOURCE: Hennepin and Ramsey Counties' Medical Examiners, 2012

Exhibit 6. Percentage of Total Drug Reports[1] from Drug Items Seized by Twin Cities Area[2] Law Enforcement Involving Selected Substances: 2009–2011[3]

	2009 Percent of Total	2010 Percent of Total	2011[3] Percent of Total
Cannabis	22.7	20.4	19.4
Cocaine	18.4	18.8	20.9
Methamphetamine	20.8	20.0	19.0
Heroin	3.8	4.2	6.1
MDMA[4]	4.6	3.9	0.9
Oxycodone	2.1	2.1	2.7
Number of Reports	5,671	7,029	6,387[3]

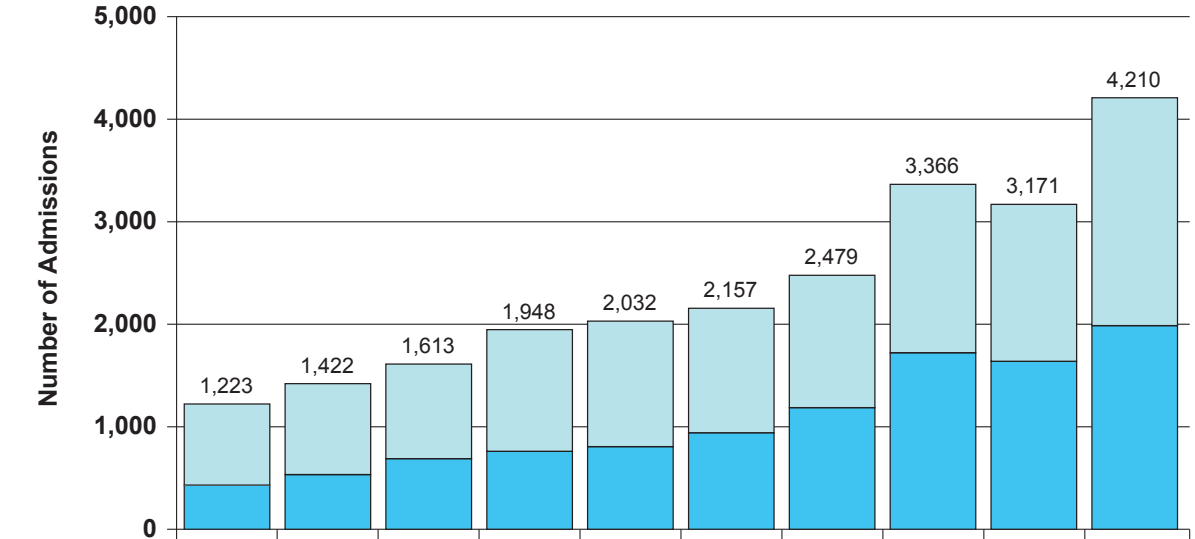
[1]NFLIS methodology allows for the accounting of up to three drug reports per item submitted for analysis. The data presented are a combined count including primary, secondary, and tertiary reports for each drug item for the selected drugs.
[2]All Federal, State, and local laboratory data presented are from the seven-county Minneapolis/St. Paul metropolitan area, including the counties of Anoka, Dakota, Hennepin, Ramsey, Washington, Scott, and Carver.
[3]NFLIS data are subject to change. The longer the time after the calendar year for which data are extracted, the less likely there will be large changes in the number of drug reports. Therefore, data for 2011 are more likely to be subject to change than earlier years. The St. Paul Police Department laboratory did not submit November and December 2011 data.
[4]MDMA=3,4-methylenedioxymethamphetamine, also known as ecstasy.
SOURCE: NFLIS, DEA, May 8, 2012

Exhibit 7. Percentage of Male Arrestees[1] Who Tested Positive for Drugs in Hennepin County: 2007–2011



[1]Because these percentages are annualized, they do not correspond with 2010 and 2011 figures previously reported. The number of sampled eligible arrestees in Hennepin County in 2007=881, in 2008=854, in 2009=996, in 2010=899, and in 2011=928.
SOURCE: ADAM II Annual Report, ONDCP, tables 3.4–3.7, pages 60 and 61

Exhibit 8. Number of Admissions to Area Addiction Treatment Programs With Heroin and Other Opiates as the Primary Substance Problem, Minneapolis/St. Paul: 2002–2011



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Heroin	792	888	924	1,187	1,226	1,215	1,292	1,644	1,532	2,223
Other opiates	431	534	689	761	806	942	1,187	1,722	1,639	1,987

SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2012

Exhibit 9. Minnesota Drug Task Forces Opiate Summary, Minneapolis/St. Paul: 2010–2011

	2010	2011	Percentage Change From 2010 to 2011
Heroin seized (grams)	228	406	78.0
Heroin arrests	108	206	90.7
Oxycodone seized (dosage units)	944	2,586	173.9
Pill arrests	483	502	3.9

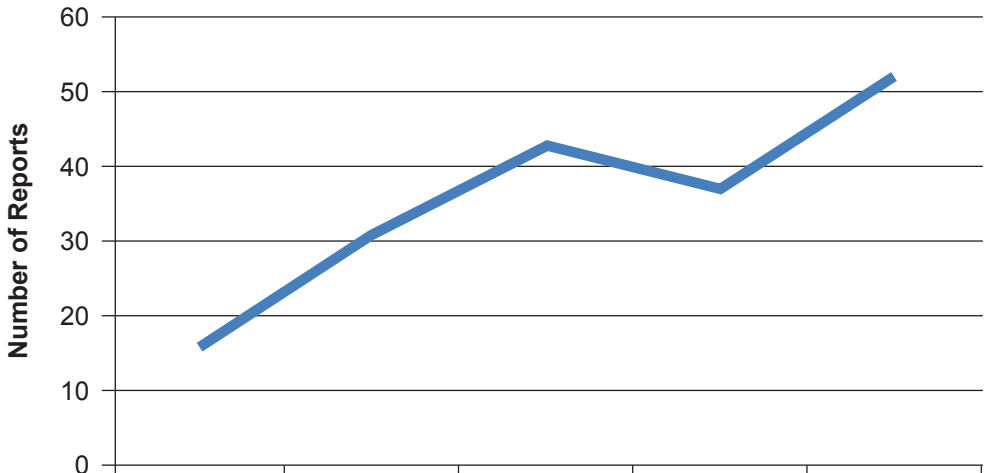
Note: There are 23 multijurisdictional law enforcement drug and violent crime task forces operating throughout Minnesota, staffed by over 200 investigators from over 120 agencies.
SOURCE: Office of Justice Programs, Minnesota Department of Public Safety, 2012

Exhibit 10. Number of Exposures to Selected Drugs Reported to Hennepin Regional Poison Center, Minneapolis/St. Paul: 2009–2011

	2009	2010	2011
Cannabimimetics	—	28	149
Substituted Cathinones	—	5	144
2C-E and Analogs	5	10	23
Heroin	41	52	78
LSD	9	7	15
MDMA	42	26	24

SOURCE: Hennepin Regional Poison Center, Hennepin County Medical Center, 2012

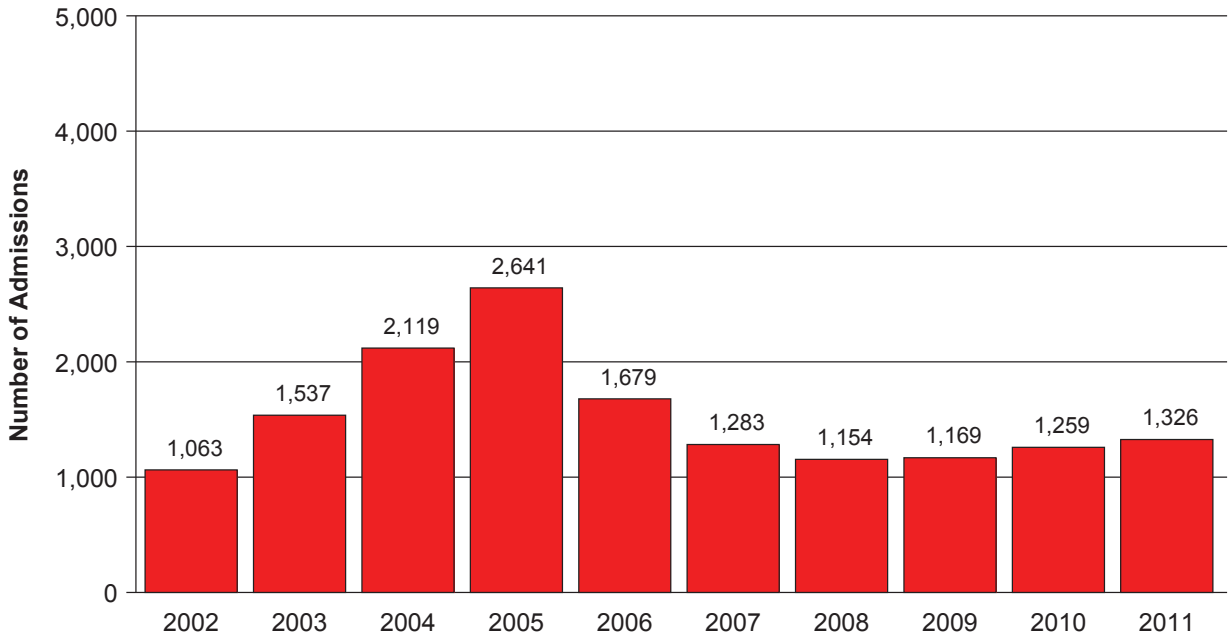
Exhibit 11. Theft or Loss of Controlled Substances Reported to the DEA[1], Minnesota: 2006–2010



	2006	2007	2008	2009	2010
Number of reports	16	31	43	37	52

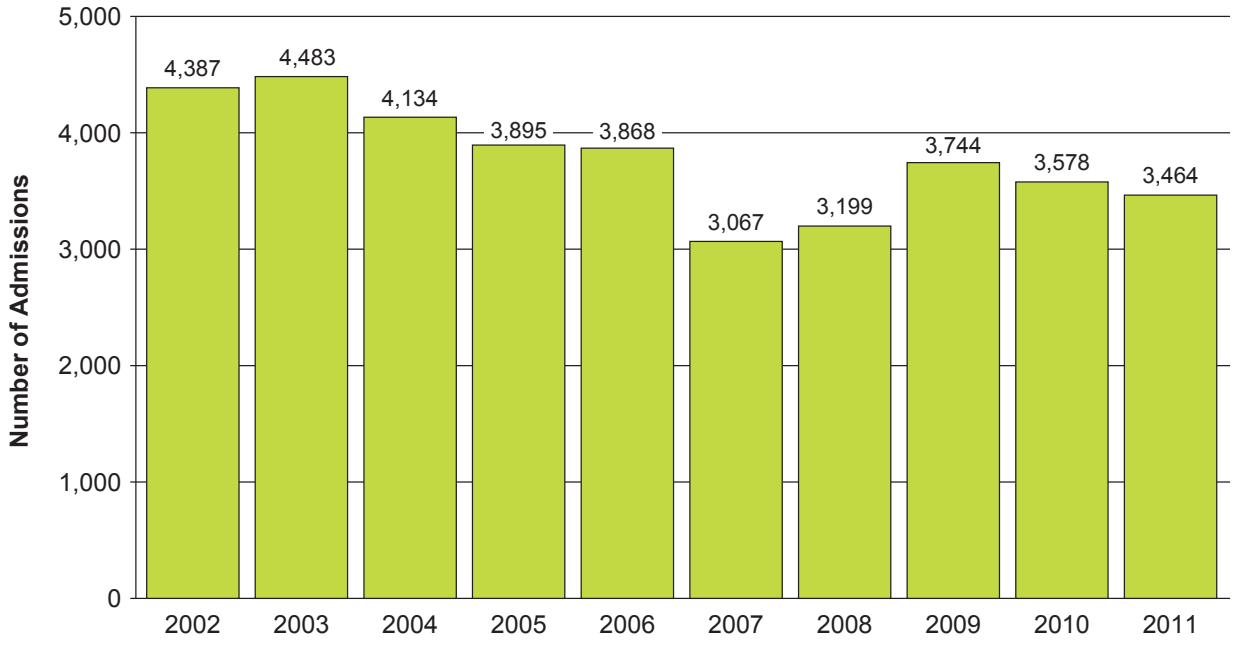
[1]This form is filed to report a theft or loss of controlled substances due to "employee pilferage" or "other" that occurred at a Minnesota hospital pharmacy, clinic pharmacy, retail pharmacy physically co-located in a clinic or hospital, or practitioners who were licensed to store controlled substances for use by patients (e.g., outpatient surgery center).
SOURCE: Minnesota Department of Health from the DEA; compiled from "Form DEA-106, Theft or Loss of Controlled Substances"

Exhibit 12. Number of Admissions to Area Addiction Treatment Programs With Methamphetamine as the Primary Substance Problem, Minneapolis/St. Paul: 2002–2011



SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2012

Exhibit 13. Number of Admissions to Area Addiction Treatment Programs With Marijuana as the Primary Substance Problem, Minneapolis/St. Paul: 2002–2011



SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2012

Exhibit 14. Number and Percentage of New Cases of HIV Infection[1], by Gender and Mode of Exposure, Minnesota: 2011

Mode of Exposure	Males # Cases	Males Percentage	Females # Cases	Females Percentage	TOTAL # Cases	TOTAL Percentage
MSM	156	72	—	—	156	53
IDU	1	0	1	1	2	1
MSM/IDU	7	3	—	—	7	2
Heterosexual	12	6	63	85	75	26
Perinatal	1	0	0	0	1	0
Unspecified/Other	19	9	7	9	26	9
No interview	22	10	3	4	25	9
Total	**218**	**100**	**74**	**100**	**292**	**100**

Note: MSM=men who have sex with men; IDU=Injection Drug User.
[1]Includes all new cases of HIV infection at first diagnosis among Minnesota residents.
SOURCE: Minnesota Department of Health, AIDS/HIV Surveillance Unit, May 2012

Drug Use Trends in New York City: 2011

Rozanne Marel, Ph.D., Robinson B. Smith, M.A., Gregory Rainone, Ph.D.[1]

ABSTRACT

This report describes drug patterns and trends for the five boroughs of New York City in 2011. While cocaine remained a major problem in New York City, cocaine indicators were mixed for this reporting period. Primary cocaine treatment admissions declined in 2011 to the lowest level in more than two decades, but many clients in treatment had a primary, secondary, or tertiary problem with cocaine. There were more drug reports among items analyzed in National Forensic Laboratory Information System (NFLIS) laboratories for cocaine than for any other drug (found in 35 percent of all drug reports). Arrestee Drug Abuse Monitoring (ADAM) II program data showed significant decreases in cocaine use among male arrestees in Manhattan comparing 2011 with earlier years, but no significant change since 2010. Heroin also remained a major problem in New York City, with heroin indicators mixed in this reporting period. Almost one-quarter of all primary treatment admissions were for heroin in 2011, the same as the previous year. Among primary heroin treatment admissions, the percentage of injectors remained stable from 41 to 42 percent. Purity for South American heroin fell to 31.6 percent pure from 44.1 percent pure in 2009; the price per milligram pure rose from $0.85 to $0.92. Eleven percent of all NFLIS reports were for heroin in 2011. ADAM II data for male arrestees in Manhattan showed significant decreases in opiate use from 2011 and the years 2000–2003, but no significant change since 2007. Marijuana indicators remained at a high level, although most were stable or decreasing after several years of increases. Marijuana primary treatment admissions decreased but still represented more than one-quarter of all primary treatment admissions. One-third of reports among drug items analyzed in NFLIS laboratories were identified as marijuana. ADAM II data revealed significant increases in marijuana use among male arrestees. Many kinds of prescription drugs were available on the street, and the indicators appeared to be increasing; however, prescription drugs represented only a small fraction of primary admissions to treatment. Although prescription drugs represented only a small number of NFLIS reports, the specific drugs that were identified most often were oxycodone, alprazolam, methadone, buprenorphine, clonazepam, and hydrocodone. According to the New York State Prescription Drug Monitoring Program data, oxycodone prescriptions in New York City increased by 51 percent from 2008 to 2010. Methamphetamine indicators remained relatively low. Primary methamphetamine treatment admissions, drug reports for methamphetamine among drug items analyzed in NFLIS laboratories, and proportions of ADAM II arrestees with positive tests for methamphetamine were all at very low levels. There were 110,736 New Yorkers living with human immunodeficiency virus (HIV) or acquired immune deficiency syndrome (AIDS) as of December 31, 2010. This represented an increase of 1.7 percent from 2009. New diagnoses, however, declined 8 percent (from 3,782 to 3,481) from 2009 to 2010. Deaths from all causes declined 9 percent from 2009 to 2010, and have declined by 30 percent since 2006. Of new HIV (non-AIDS) diagnoses in 2010, 52.1 percent were among men who have sex with men, compared with 47.4 percent in 2009.

[1]The authors are affiliated with the New York State Office of Alcoholism and Substance Abuse Services, New York, New York.

INTRODUCTION

Area Description

New York City, with more than 8.2 million people, is the largest city in the United States. It is situated in the southeastern corner of the State on the Atlantic coast and encompasses an area of more than 300 square miles. New York City has nearly 600 miles of waterfront and one of the world's largest harbors.

According to the 2010 census, the city's population grew by 166,855 persons (2.1 percent) from the 2000 census count. If the New York City five boroughs were compared with other cities, 4 out of the 5 would rank among the top 10 U.S. cities, with Brooklyn ranking 4th in population, Queens ranking 5th, Manhattan ranking 7th, and the Bronx ranking 10th. Historically, New York City has been home to a large multiracial, multiethnic population. New York City is the largest and most racially/ethnically diverse city in the country. As has been true throughout its history, immigration continues to shape the character of New York City. It has contributed to a substantial shift in the racial/ethnic composition of New York. Findings from the 2010 U.S. Census show that the population diversity continues: 33 percent are White non-Hispanic; 23 percent are Black/African-American non-Hispanic; 29 percent are Hispanic; and 13 percent are Asian non-Hispanic.

According to the New York City Department of City Planning, approximately 1 in every 36 people living in the United States resides in New York City. New York City has the highest population density of any major city in the United States, with more than 27,000 people per square mile. Approximately two-thirds of New York City dwellings are renter-occupied, more than twice the national average. More than 3 million New York City residents are foreign born, and more than one-quarter arrived in 2000 or later. The average commute for New Yorkers is just under 40 minutes, about 15 minutes longer than the national average. New York City has the largest Chinese population outside of Asia and the largest Puerto Rican population of any U.S. city. Among Latinos in New York City, however, Puerto Ricans currently rank third, following Dominicans and Mexicans. An estimated 200 languages are spoken in New York City, and almost one-half of all New Yorkers speak a language other than English at home (*www.nyc.gov/html/dcp/html/census/pop-facts.shtml*).

New York City remains the economic hub of the Northeast. Its main occupations include management and professional, sales and office, and service. The unemployment rate in New York City for April 2012 was 9.5 percent; the rate for New York State was 8.5 percent. The unemployment rate for the Nation was 8.1 percent. The unemployment figures for April 2011 were 8.8 percent for New York City, 8.0 percent for New York State, and 9.0 percent for the Nation. According to the U.S. Census Bureau, 2010 American Community Survey, the median household income in New York City in 2010 was $48,743, with 17 percent living below the Federal poverty level.

Data Sources

This report describes current drug abuse trends in New York City from 1995 to 2011, using the data sources summarized below:

- **Treatment admissions data** were provided by the New York State Office of Alcoholism and Substance Abuse Services (OASAS) for 1995–2011 and included admissions to both State-funded and nonfunded programs (extracted May 5, 2012). Demographic data are for 2011.

- **Forensic laboratory testing data** for New York City were provided by the Drug Enforcement Administration (DEA)'s National Forensic Laboratory Information System (NFLIS) for January–December 2011. The data include New York Police Department laboratory data for the five boroughs of New York City from local as well as New York State and DEA laboratories. NFLIS methodology allows for the accounting of up to three drug reports per item submitted for analysis. The data presented are a combined count including primary, secondary, and tertiary reports for each drug item for the selected drugs. Data for 2011 are provisional and are subject to change.

- **Arrestee data** were derived from the Arrestee Drug Abuse Monitoring (ADAM) II program, *ADAM II 2011 Annual Report, Arrestee Drug Abuse Monitoring Program II, Office of National Drug Control Policy (ONDCP), May 2012,* and include weighted data on urinalysis test positivity for selected drugs from male arrestees in Manhattan, New York City.

- **Drug price, purity, and trafficking data** were provided by the DEA *Domestic Monitor Program (DMP), draft (July 8, 2011),* and the *DEA New York Field Division Unified Intelligence Division: New York Area Drug Prices, July – December 2011*.

- **Prescription drug data** for New York City were derived from Paone, D. Bradley O'Brien, D., Shah, S. Dowell, D. Goldmann, E. Opioid Analgesics in New York City: *Prescriber Practices, New York City Department of Health and Mental Hygiene: Epi Data Briefs* (15), May 2012.

- **Acquired immunodeficiency syndrome (AIDS) and human immune-deficiency virus (HIV) data** were provided by the New York City Department of Health and Mental Hygiene, *HIV Epidemiology Program, for 1981–2010, including the HIV Epidemiology and Field Services Semiannual Report, Vol. 6, No. 2, January 1, 2010–December 31, 2010*.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine indicators were mixed during this reporting period, with some remaining stable, and some decreasing (exhibit 1). Nevertheless, the drug still accounted for major problems in New York City. Primary cocaine treatment admissions to State-funded and nonfunded programs in New York City declined from 17,572 in 1998 to 11,332 in 2011. Cocaine admissions reached the lowest number in more than two decades in 2011 and constituted 15 percent of New York City's 77,233 total drug and alcohol treatment admissions. In addition to these primary cocaine admissions, 15,914 admissions reported cocaine as a secondary substance, and 3,816 reported cocaine as a tertiary substance. Among the 77,233 drug and alcohol treatment admissions in 2011, 31,062 (40 percent) mentioned cocaine as a primary, secondary, or tertiary substance of abuse.

Exhibit 2 shows demographic characteristics of cocaine treatment admissions for 2011 by the two primary modes of use: smoking crack (representing 60 percent of cocaine admissions) and using cocaine intranasally (representing 36 percent). Clients who smoked crack were more likely than intranasal users to be female (35 versus 23 percent), Black (68 versus 42 percent), and without income (38 versus 32 percent). Clients using intranasally were more likely to be Hispanic or White. For both groups, the secondary drugs of abuse tended to be alcohol and marijuana. Admissions for primary cocaine represented an aging population, and clients smoking crack tended to be older than those using cocaine intranasally.

DEA's NFLIS showed that of the 49,008 total drug reports (primary, secondary, or tertiary) identified by forensic laboratories in seized drug items New York City in 2011, 17,221 (35 percent) were identified as cocaine. There were more NFLIS reports for cocaine than for any other drug. Phenylimidothiazole isomer undetermined (possible levamisole), an adulterant sometimes found in cocaine laboratory analysis, was identified in 335 reports.

ADAM II data for Manhattan male arrestees in 2011 showed that 23.1 percent of arrestees tested positive for cocaine. This represented significant declines from 2000, 2001, 2002, 2003, 2007, and 2009. Changes in the intervening years, from 2004 to 2010, were not significant. The 2011 percentage represented a substantial decline from 50 percent in 2000.

The DEA New York Field Division (NYFD) Unified Intelligence Division reported that prices for cocaine powder for July–December 2011 were $28,000–$39,000 per kilogram; mid-level sales were $850–$1,000 per ounce; and retail prices were $125–$200 per 8-ball, $28–$33 per gram, and $10 per bag/glassine. The DEA NYFD Unified Intelligence Division reported that crack sold for $28,000–$39,000 per kilogram, $650–$1,100 per ounce, $100–$150 per 8-ball, and $28–$33 per gram.

Heroin

Heroin continued to be a major drug problem in New York City (exhibit 3). For example, nearly one-quarter of New York City's primary treatment admissions in 2011 were for heroin. Overall, the trends in heroin indicators were mixed. Primary heroin admissions to treatment programs in New York City gradually increased from 1995 to 2004, from 18,287 to 23,802 admissions; this represented a 30-percent increase (exhibit 3). However, the number of primary heroin admissions in 2011 decreased to its lowest yearly total since 1995. They numbered 18,716 in 2011, constituting 24 percent of New York City's 77,233 drug treatment admissions. It should be noted, however, that the number of treatment admissions for the second half of 2011 remained stable compared with the first half of 2011. In addition to the 18,716 primary heroin admissions in 2011, heroin was reported as a secondary substance of abuse for 2,389 admissions and a tertiary drug for 1,088 admissions.

Other changes were observed in mode of heroin use. Intranasal heroin use may have peaked in the second half of 1998, with 62 percent of heroin admissions to all New York City drug treatment programs reporting this as their primary route of administration. Since then, the proportions reporting intranasal use have declined slightly. In 2011, the proportion using primarily intranasally was 56 percent. Meanwhile, heroin injection increased among heroin admissions, from 32 percent in the second half of 1998 to 42 percent in 2011, essentially the same as the last reporting cycle.

Exhibit 4 highlights general demographic characteristics of heroin abusers admitted to all New York City treatment programs in 2011 by primary mode of use. In general, primary heroin admissions were predominantly male (78 percent) and 35 and older (77 percent). They were more likely to be Hispanic (43 percent) than Black (25 percent) or White (24 percent), and they were likely to have cocaine identified as a secondary drug of abuse (40 percent). Compared with heroin injectors, intranasal users were more likely to be Black (36 versus 12 percent). In contrast, heroin injectors were more likely than intranasal users to be White (37 versus 13 percent), to have cocaine identified as a secondary drug of abuse (46 versus 37 percent), and to have started use before reaching age 20 (54 versus 42 percent).

In addition to heroin admissions to traditional treatment programs, heroin admissions for detoxification or crisis services in New York City have become sizable in number. These special services are usually short-term, provided in a hospital or community-based setting, and are medically supervised. In 1995, 4,503 such admissions were reported involving heroin abuse. In 2011, the number of heroin admissions was 12,609. While that represents an overall increase since 1995, the number of heroin admissions for crisis services in 2011 was essentially the same as 2010 (when there were 12,517 heroin admissions).

NFLIS data showed that 11 percent of the 49,008 total drug reports identified among drug items seized and analyzed by NFLIS laboratories in New York City in 2011 (*n*=5,390) were identified as heroin.

According to the DEA NYFD, prices for July to December 2011 were $47,000–$70,000 per kilogram for South American (SA) heroin. Mid-level prices were $2,100–$2,500 per ounce of SA heroin. Retail prices for SA heroin were $70–$100 per gram and $10–$14 per bag. According to the DEA DMP, the purity of heroin in 2010 fell to 31.6 percent pure for SA heroin. From 1992 to 2000, the purity was generally greater than 60 percent pure, but since 2004, it has remained below 50 percent. The price per milligram pure rose from $0.85 in 2009 to $0.92 in 2010. While SA heroin continued to be the predominant heroin being purchased at the street level in New York City, Southwest Asian (SWA) heroin purchases in the DMP were also reported in the New York area. The average purity of the 2010 SWA purchases was 28.2 percent pure, and the average price was $0.80 per milligram pure. Compared with the SWA exhibits purchased in 2009, the average purity increased significantly by 19.3 percent, and the price per milligram pure decreased by $1.70.

According to the ADAM II data for Manhattan male arrestees in 2011, 7.8 percent of arrestees tested positive for opiates. This represented a significant decline in those testing positive for opiates in the current reporting period, compared with 2000, 2001, 2002, and 2003. Changes from 2007 to 2011 were not significant. While 20 percent of arrestees tested positive for opiates in 2000, that proportion dropped to less than one-half of that starting in 2007. New York was the only ADAM II site that saw a significant increase in injection from 2010 to 2011.

Other Opiates/Narcotics

Many kinds of prescription drugs were available on the street, and the indicators appeared to be increasing. Treatment admissions for other opiates/narcotics represented only 2.9 percent of admissions in New York City in 2011, but they have increased in both New York City and elsewhere in New York State.

According to NFLIS data, 1,732 (3.5 percent) of the total drug reports identified by forensic laboratories among drug items seized and analyzed in New York City in 2011 were identified as oxycodone, ranking fourth among drugs reported. Other prescription opiate/narcotics reported most often in the NFLIS system were methadone (*n*=633), ranking 7th; buprenorphine (*n*=592), ranking 8th; and hydrocodone (*n*=310), ranking 15th.

ADAM II data for Manhattan male arrestees revealed that 1.6 percent of arrestees tested positive for oxycodone in 2011. According to the New York City Department of Health and Mental Hygiene analysis of the New York Prescription Drug Monitoring Program, oxycodone prescriptions in New York City increased by 51 percent from 2008 to 2010.

According to the DEA NYFD Unified Intelligence Division, OxyContin® was sold on the street for $20–$40 for a 40-milligram tablet, and $40–$80 for an 80-milligram tablet. Other prices for opiates on the street included Vicodin® selling for $5–$25 per dosage unit and Percocet® selling for $4–$8 per dosage unit.

Benzodiazepines/Barbiturates

According to NFLIS data, 3.2 percent (*n*=1,579) of the total drug reports identified by laboratories among seized and analyzed drug items in New York City in 2011 were identified as alprazolam, ranking fifth among drugs reported. Clonazepam ranked ninth, and was found in 417 reports. According to the DEA NYFD, Xanax® was sold on the street for $2–$5 per pill, and Valium® sold for $3–$5 per pill.

Methamphetamine/Amphetamines

Although methamphetamine was popular in other parts of the Nation, most indicators related to the drug in New York City in 2011 remained at low levels. With respect to law enforcement indicators, NFLIS data showed that less than 1.0 percent of the 49,008 drug reports among drug items seized and analyzed in forensic laboratories in New York City in 2011 were identified as methamphetamine. In ADAM II data for Manhattan male arrestees in 2011, a very low percentage (0.4 percent) of arrestees tested positive for methamphetamine.

According to the DEA NYFD, the wholesale price of methamphetamine for July–December 2011 was $27,000–$31,000 per pound for "crystal ice." At the retail level, the range was $1,500–$1,900 per ounce and $350–$600 per 8-ball of crystal ice. The retail price for locally produced methamphetamine powder was $2,000 per ounce and $150–$210 per gram.

Marijuana

In New York City, marijuana indicators remained at a high level, although most were stable or decreasing after several years of increases. Overall, the number of primary marijuana admissions declined to 19,960 in 2011 from 22,169 in 2010 (exhibit 5). In 2011, primary marijuana admissions represented 26 percent of admissions to all New York City treatment programs. In addition, a higher percentage of clients in treatment had a primary, secondary, or tertiary problem with marijuana than with any other drug.

Exhibit 6 shows demographic characteristics of primary marijuana admissions to all New York City treatment programs in 2011. The vast majority were male (77 percent), and 45 percent were 25 and younger. More than one-half (57 percent) were Black; approximately one-third (29 percent) were Hispanic; and 7 percent were White. Alcohol was the secondary drug of abuse for 34 percent of the 2011 primary marijuana admissions.

According to NFLIS data, 32 percent of the drug reports identified among drug items seized and analyzed by laboratories in New York City in 2011 (*n*=15,655) were identified as marijuana/cannabis. According to the DEA NYFD, marijuana prices at the end of 2011 ranged from $1,200–$4,500 per pound wholesale for high-quality hydroponic marijuana to $700–$1,500 per pound for low-quality Mexican marijuana. At mid-level, the price for high-quality Canadian was $65–$1,000 per ounce.

At the retail level, the prices were $300–$1,000 per ounce for high-quality Canadian and $65–$75 per ounce for low-quality locally produced marijuana.

ADAM II data revealed that 46.7 percent of male arrestees in Manhattan in 2011 tested positive for marijuana, the highest percentage testing positive among all drugs. This represented a significant increase compared with 2000, 2003, 2007, 2008, and 2009.

Other Drugs

MDMA

"Club drugs" are a collection of various synthetic chemical compounds that are often abused by young people in a variety of social settings, such as dance clubs, after-hour clubs, and other special events. Club drugs include MDMA (3,4-methylenedioxymethamphetamine), GHB (gamma hydroxybutyrate), and ketamine. Many of the club drugs have stimulant or hallucinogenic properties.

In 2011, 1,358 of the drug reports detected among seized and analyzed drug items were identified by NFLIS laboratories in New York City as MDMA, representing 0.7 percent of total drug reports. According to the DEA NYFD for end of year 2011, a dose of MDMA sold for $1.50 per tablet retail.

Ketamine

Ketamine was found in 414 (0.8 percent) of the drug reports among items seized and analyzed in NFLIS laboratories in New York City in 2011. Ketamine reports ranked in 10th place among all drug reports.

PCP (Phencyclidine)

PCP ("angel dust") continued to be available in some areas of New York City. PCP ranked sixth (*n*=969) among all drug reports identified by NFLIS laboratories in New York City in 2011.

BZP

There were 302 drug reports identified as BZP (1-benzylpiperazine), an illegal synthetic stimulant, among drug items seized and analyzed by New York City NFLIS laboratories in 2011.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The AIDS epidemic, with its impact on injection drug users (IDUs), has played a crucial role in shaping the New York City drug scene over the last two decades. HIV first emerged in New York City in the mid- to late-1970s. AIDS reporting was mandated in 1983, but reporting of HIV infection began in June 2000.

As of December 31, 2010, 110,736 New Yorkers had been diagnosed with HIV or AIDS. This represented increases of 1.7 percent from 2009 and 12 percent from 2006. In 2010, 44,317 (40 percent) were living with HIV (non-AIDS), and 66,419 (60 percent) were living with AIDS. According to the New York City Department of Health and Mental Hygiene, the true number of persons living with HIV/AIDS (PLWHA) was actually higher, since they estimate that one-quarter of persons living with

HIV have never been tested and do not know that they are infected. In 2010, there were 1,695 deaths among persons with HIV/AIDS in New York City.

Of the 110,736 PLWHA in New York City as of December 31, 2010, 71 percent were male, and 29 percent were female. In terms of race/ethnicity, 45 percent were Black; 33 percent were Hispanic; and 20 percent were White. For transmission risk factors, 34 percent (*n*=37,720) were men who have sex with men (MSM); 19 percent (*n*=20,505) had an injection drug use history; 19 percent reported a heterosexual transmission factor; 2 percent had a perinatal transmission risk factor; less than 1 percent had another risk factor; and 26 percent had an unknown risk factor or were under investigation.

According to the New York City Department of Health and Mental Hygiene *HIV Epidemiology Program 2nd Semiannual Report,* important trends include the following. In 2010, there were 3,481 new diagnoses of HIVAIDS in New York City. Approximately three-quarters (76.6 percent) of these new diagnoses were male; 23.4 percent were female. Almost one-half (48.3 percent) of new diagnoses were MSMs, while 21.4 percent were among people reporting heterosexual transmission risk. Four-fifths of new diagnoses were among Blacks or Hispanics.

Comparing 2010 with previous years, new diagnoses declined by 8 percent (from 3,782 to 3,481) from 2009 to 2010. New diagnoses have declined by 16 percent since 2006. Deaths from all causes declined by 9 percent (from 1,871 to 1,695) from 2009 to 2010; deaths from all causes had declined 30 percent since 2006. The proportion of new HIV cases diagnosed concurrently with AIDS remained stable from 2009 to 2010 (at 21 percent in 2009 and 21.8 percent in 2010). Fifty-two percent of new HIV (non-AIDS) diagnoses in 2010 were among MSMs, compared with 47.4 percent in 2009.

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Exhibit 1. Trends in Selected Indicator Data for Cocaine in New York City: 1995–2011 (Semiannual and Annual)

Year	Semiannual/ Annual Periods	Deaths Involving Cocaine[1]	Cocaine-Involved Estimated ED Visits[2]	Treatment Admissions: Cocaine as Primary Drug of Abuse[3]	Cocaine Arrests[4]	Births to Women Using Cocaine[5]
1995	1H	—	—	8,371	—	—
	2H	—	—	7,836	—	—
	Total	—	—	16,207	40,846	1,059
1996	1H	—	—	8,561	—	—
	2H	—	—	8,817	—	—
	Total	—	—	17,378	38,813	1,005
1997	1H	—	—	9,048	—	—
	2H	—	—	8,401	—	—
	Total	—	—	17,449	35,431	864
1998	1H	—	—	8,999	—	—
	2H	—	—	8,573	—	—
	Total	—	—	17,572	35,577	742
1999	1H	—	—	8,346	—	—
	2H	—	—	7,567	—	—
	Total	—	—	15,913	31,781	626
2000	1H	—	—	7,337	—	—
	2H	—	—	6,722	—	—
	Total	—	—	14,059	31,919	490
2001	1H	—	—	7,343	—	—
	2H	—	—	7,032	—	—
	Total	—	—	14,375	23,498	438
2002	1H	—	—	7,736	—	—
	2H	—	—	7,872	—	—
	Total	—	—	15,608	26,773	363
2003	1H	—	—	8,203	—	—
	2H	—	—	7,911	—	—
	Total	—	—	16,114	25,868	354
2004	1H	—	—	8,410	—	—
	2H	—	—	8,301	—	—
	Total	—	20,445	16,711	27,963	337
2005	1H	—	—	8,215	—	—
	2H	—	—	7,741	—	—
	Total	—	30,478	15,956	26,773	301
2006	1H	—	—	8,582	—	—
	2H	—	—	8,868	—	—
	Total	—	36,791	17,450	27,992	298
2007	1H	—	—	8,618	—	—
	2H	—	—	7,988	—	—
	Total	394	35,706	16,606	—	—
2008	1H	—	—	8,180	—	—
	2H	—	—	7,568	—	—
	Total	357	31,647	15,748	—	—
2009	1H	—	—	6,978	—	—
	2H	—	—	6,766	—	—
	Total	—	25,951	13,744	—	—
2010	1H	—	—	6.492	—	—
	2H	—	—	6,223	—	—
	Total	—	—	12,715	—	—
2011	1H	—	—	5,927	—	—
	2H	—	—	5,405	—	—
	Total	—	—	11,332	—	—

[1]Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration (SAMHSA), Drug-Related Mortality, 2008 for the five boroughs of New York City.
[2]ED=Emergency Department; DAWN, 2009, Center for Behavior Health Statistics and Quality (CBHSQ), SAMHSA.
[3]New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.
[4]New York City Police Department.
[5]New York City Department of Health and Mental Hygiene.
SOURCES: DAWN, OAS, SAMHSA, Drug-Related Mortality, 2008; DAWN, CBHSQ, SAMHSA; New York State Office of Alcoholism and Substance Abuse Services (OASAS); New York City Police Department; and New York City Department of Health and Mental Hygiene

Exhibit 2. Characteristics of Primary Cocaine Admissions[1] to State-Funded[2] and Nonfunded[3] Treatment Programs, by Route of Administration and Percentage, in New York City: 2011

Demographic Characteristic	Percent Total (*N*=11,332)	Percent Smoking Crack (*n*=6,798)	Percent Using Cocaine Intranasally (*n*=4,119)
Gender			
Male	70	65	77
Female	30	35	23
Age at Admission			
25 and Younger	5	3	7
26–34	16	13	21
35 and Older	79	84	72
(Average Age)	(42.9)	(44.0)	(41.2)
Race			
Black	58	68	42
Hispanic	24	18	34
White	13	10	17
No Source of Income[4]	36	38	32
Readmissions	83	87	77
Age of First Use			
14 and Younger	7	6	9
15–19	32	27	38
20–29	42	45	38
30 and Older	19	22	15
Secondary Drug of Abuse			
Alcohol	35	39	30
Marijuana	23	22	26
Heroin	8	7	8

[1]Figures on this table may differ somewhat from figures cited on other tables, because computer runs may have been executed at different times and files are being updated continuously.
[2]State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).
[3]Nonfunded programs receive funding through sources other than OASAS, including Medicaid, private insurance reimbursements, and client fees (self-pay).
[4]Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.
SOURCE: New York State Office of Alcoholism and Substance Abuse Services (OASAS)

Exhibit 3. Trends in Selected Indicator Data for Heroin in New York City: 1995–2011 (Semiannual and Annual)

Year	Semiannual/ Annual Period	Deaths Involving Heroin[1]	Heroin/Morphine Estimated ED Visits[2]	Treatment Admissions: Heroin as Primary Drug of Abuse[3]	Heroin Arrests[4]	Average Purity of Street Heroin (%)[5]
1995	1H	—	—	9,286	—	—
	2H	—	—	9,001	—	—
	Total	—	—	18,287	38,131	(69.4)
1996	1H	—	—	9,161	—	—
	2H	—	—	9,617	—	—
	Total	—	—	18,778	37,901	(56.3)
1997	1H	—	—	10,276	—	—
	2H	—	—	10,431	—	—
	Total	—	—	20,707	35,325	(62.5)
1998	1H	—	—	10,793	—	—
	2H	—	—	10,203	—	—
	Total	—	—	20,996	37,483	63.6)
1999	1H	—	—	10,690	—	—
	2H	—	—	10,189	—	—
	Total	—	—	20,879	32,949	(61.8)
2000	1H	—	—	10,944	—	—
	2H	—	—	10,672	—	—
	Total	—	—	21,616	33,665	(62.9)
2001	1H	—	—	11,324	—	—
	2H	—	—	11,455	—	—
	Total	—	—	22,779	27,863	(56.0)
2002	1H	—	—	11,357	—	—
	2H	—	—	11,157	—	—
	Total	—	—	22,514	34,098	(61.4)
2003	1H	—	—	11,540	—	—
	2H	—	—	12,023	—	—
	Total	—	—	23,563	—	(53.5)
2004	1H	—	—	12,059	—	—
	2H	—	—	11,743	—	—
	Total	—	13,383	23,802	—	(43.3)
2005	1H	—	—	11,127	—	—
	2H	—	—	10,665	—	—
	Total	—	18,179	21,792	—	(49.4)
2006	1H	—	—	11,189	—	—
	2H	—	—	11,055	—	—
	Total	—	17,892	22,244	—	(44.5)
2007	1H	—	—	11,356	—	—
	2H	—	—	11,256	—	—
	Total	96	16,884	22,612	—	(49.0)
2008	1H	—	—	11,024	—	—
	2H	—	—	11,700	—	—
	Total	155	16,084	22,724	—	(47.1)
2009	1H	—	—	10,689	—	—
	2H	—	—	11,242	—	—
	Total	—	12,802	21,931	—	(44.1)
2010	1H	—	—	10,130	—	—
	2H	—	—	9,347	—	—
	Total	—	—	19,477	—	—
2011	1H	—	—	9,401	—	—
	2H	—	—	9,315	—	—
	Total	—	—	18,716	—	—

[1]DAWN, OAS, SAMHSA, Drug-Related Mortality, 2008 for the five boroughs of New York City.
[2]ED=Emergency Department; DAWN, 2009, CBHSQ, SAMHSA,
[3]New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.
[4]New York City Police Department.
[5]DEA.
SOURCES: DAWN, OAS, SAMHSA, Drug-Related Mortality, 2008, DAWN, CBHSQ, SAMHSA; New York State Office of Alcoholism and Substance Abuse Services (OASAS); New York City Police Department; and DEA

Exhibit 4. Characteristics of Primary Heroin Admissions[1] to State-Funded[2] and Nonfunded[3] Treatment Programs, by Route of Administration and Percentage, in New York City: 2011

Demographic Characteristic	Percent Total (*N*=18,716)	Percent Using Heroin Intranasally (*n*=10,524)	Percent Injecting Heroin (*n*=7,846)
Gender			
Male	78	78	79
Female	22	22	21
Age at Admission			
25 and Younger	6	3	9
26–34	17	11	26
35 and Older	77	86	65
(Average Age)	(42.7)	(44.8)	(40.0)
Race			
Black	25	36	12
Hispanic	43	45	46
White	24	13	37
No Source of Income[4]	35	33	36
Readmissions	87	86	89
Age of First Use			
14 and Younger	12	11	14
15–19	35	31	40
20–29	37	38	36
30 and Older	16	20	11
Secondary Drug of Abuse			
Alcohol	12	13	11
Marijuana	10	12	8
Cocaine	40	37	46

[1]Figures on this table may differ somewhat from figures cited on other tables, because computer runs may have been executed at different times and files are being updated continuously.
[2]State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).
[3]Nonfunded programs receive funding through sources other than OASAS, including Medicaid, private insurance reimbursements, and client fees (self-pay).
[4]Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.
SOURCE: New York State Office of Alcoholism and Substance Abuse Services (OASAS)

Exhibit 5. Trends in Selected Indicator Data for Marijuana in New York City: 1995–2011 (Semiannual and Annual)

Year	Semiannual/ Annual Period	Marijuana Estimated ED Visits[1]	Treatment Admissions: Marijuana as Primary Drug of Abuse[2]	Marijuana/Cannabis Arrests[3]
1995	1H	—	2,171	—
	2H	—	2,159	—
	Total	—	4,330	12,357
1996	1H	—	2,845	—
	2H	—	3,185	—
	Total	—	6,030	18,991
1997	1H	—	3,794	—
	2H	—	3,657	—
	Total	—	7,451	27,531
1998	1H	—	4,554	—
	2H	—	4,473	—
	Total	—	9,027	42,030
1999	1H	—	5,119	—
	2H	—	5,100	—
	Total	—	10,219	43,122
2000	1H	—	5,664	—
	2H	—	5,487	—
	Total	—	11,151	60,455
2001	1H	—	6,677	—
	2H	—	6,593	—
	Total	—	13,270	47,651
2002	1H	—	7,512	—
	2H	—	6,798	—
	Total	—	14,310	47,250
2003	1H	—	6,844	—
	2H	—	6,627	—
	Total	—	13,471	—
2004	1H	—	6,835	—
	2H	—	6,468	—
	Total	5,920	13,303	—
2005	1H	—	7,161	—
	2H	—	6,954	—
	Total	10,192	14,115	—
2006	1H	—	8,158	—
	2H	—	8,128	—
	Total	12,938	16,286	—
2007	1H	—	8,809	—
	2H	—	8,514	—
	Total	14,500	17,323	—
2008	1H	—	9,836	—
	2H	—	9,821	—
	Total	16,204	19,657	—
2009	1H	—	9,977	—
	2H	—	10,899	—
	Total	15,310	20,876	—
2010	1H	—	11,554	—
	2H	—	10,615	—
	Total	—	22,169	—
2011	1H	—	10,566	—
	2H	—	9,394	—
	Total	—	19,960	—

[1]ED=Emergency Department; DAWN, CBHSQ, SAMHSA.
[2]New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.
[3]New York City Police Department.
SOURCES: DAWN, CBHSQ, SAMHSA; New York State Office of Alcoholism and Substance Abuse Services (OASAS); and New York City Police Department

Exhibit 6. Characteristics of Primary Marijuana Admissions[1] to State-Funded[2] and Nonfunded[3] Treatment Programs, by Percentage, in New York City: 2011

Demographic Characteristic	Percentage of Total (*N*=19,960)
Gender	
Male	77
Female	23
Age at Admission	
17 and Younger	11
18–25	34
26–34	30
35 and Older	24
(Average Age)	(28.6)
Race	
Black	57
Hispanic	29
White	7
No Source of Income[4]	29
Readmissions	60
Age of First Use	
14 and Younger	50
15–19	42
20–29	7
30 and Older	1
Secondary Drug of Abuse	
Alcohol	34
Cocaine	10

[1]Figures on this table may differ somewhat from figures cited on other tables, because computer runs may have been executed at different times and files are being updated continuously.
[2]State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).
[3]Nonfunded programs receive funding through sources other than OASAS, including Medicaid, private insurance reimbursements, and client fees (self-pay).
[4]Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.
SOURCE: New York State Office of Alcoholism and Substance Abuse Services (OASAS)

Drug Use in Philadelphia, Pennsylvania: 2011

Suet T. Lim, Ph.D., Roland C. Lamb, M.A. and Marvin F. Levine, M.S.W.[1]

ABSTRACT

During 2011, drug use indicators in Philadelphia were mixed. Representing 26 percent of primary and secondary mentions combined, marijuana continued to be the most frequently reported drug at admission to treatment. Preliminary data from the National Forensic Laboratory Information System (NFLIS) for Philadelphia County indicated marijuana as a close second to cocaine for positive reports identified among analyzed drug items, at 32.5 to 33.0 percent respectively. In the prior 2 years, marijuana consistently represented the highest percentage of positive reports, followed by cocaine. Marijuana was the primary drug of choice for 21 percent of treatment admissions in 2011. Cocaine remained one of the more popular street drugs in Philadelphia. The drug remained the second most frequently detected drug in Adult Probation and Parole Department (APPD) urinalyses; however, the percent testing positive was declining. Cocaine was also the second most frequently detected drug in Medical Examiner Office (MEO) cases. It was the fourth ranked drug for primary treatment admissions, after alcohol, marijuana, and heroin. Smoking continued to be the preferred route of administration for cocaine. Treatment data indicated the continued popularity of "speedballs," with cocaine as the most frequently drug used with heroin and heroin the most frequently used drug with cocaine. Qualitative data from focus groups, as well as first urinalysis results from APPD for individuals entering probation or parole for the first time, supported this treatment data observation. Mortality indicators were not consistent with treatment indicators; while alcohol was overwhelming the primary drug of choice at admissions, alcohol was involved in only 20 percent of MEO cases with the presence of drugs. In the preceding 5 years, alcohol was consistently the second most frequently detected drug in these mortality cases. As alcohol moved down in the ranking, morphine/heroin moved up to the most frequently detected drug in 2011 mortality cases. One-half of deaths with morphine had positive screens for heroin, including the metabolite, 6-acetylmorphine. Heroin represented the third most frequent drug among positive reports from drug items seized and analyzed in NFLIS laboratories in 2011. Heroin was the third most frequent primary drug of abuse for treatment admissions. Medium-level drugs, such as PCP (phencyclidine) and prescription opioids, appeared to be increasing in use. Primary treatment admissions for other opiates showed steady increases annually from 2008 to 2011. Preliminary data from NFLIS indicated consistent increases in positive reports for oxycodone. Increased use of oxycodone was also indicated in mortality data, with oxycodone ranking in fourth place among drugs detected in deaths. "Any prescription opioid" continued to rank in first place

[1]The authors are affiliated with the City of Philadelphia, Department of Behavioral Health and Intellectual disAbility Services, Philadelphia, Pennsylvania (Dr. Arthur C. Evans, Jr., Commissioner). Alan Dashoff, Lisa Mundy, Frank L. Johnson, Maureen Murphy, Jennifer Candell, and Lucas Dan provided data and other assistance in preparing this paper. The authors appreciate the assistance provided by people in recovery, the staff of treatment programs, and those who utilize the sterile syringe exchange program, along with the staff of that program, for their assistance with qualitative data collection.

for a major drug group in MEO cases; 51.8 percent of MEO cases detected the presence of these drugs in 2011. This represented an increase from 42.7 percent in 2010. For the first time since Philadelphia started reporting, PCP moved into the top 10 drugs among all drugs detected in MEO cases. The top three most frequently detected drugs in decedents with PCP were alprazolam, cocaine, and morphine. While positive screens for cocaine have been declining in APPD data, PCP positives continued to represent approximately 5 percent of screens among persons tested. Benzodiazepine indicators remained stable in 2011. Focus groups indicated popularity of alprazolam as a pill drug. As a secondary or tertiary drug of choice, benzodiazepines were used with alcohol and heroin. Alprazolam was clearly the benzodiazepine of choice and ranked third among all drugs in MEO cases and fifth in number of reports identified among drug items analyzed by NFLIS laboratories. Methamphetamine and other amphetamines remained low-level drugs in Philadelphia in 2011. Treatment and mortality indicators for these speed-type drugs consistently showed low numbers; no speed-type drugs appeared among the top 10 positive drug reports from drug items analyzed in NFLIS laboratories.

INTRODUCTION

Area Description

Philadelphia, the largest city in the Commonwealth, is located in the southeastern corner of Pennsylvania. The 2010 U.S. Census population count of 1,526,006 showed an increase of 0.56 percent (8,456 persons) from the 2000 census count for Philadelphia. The population is 53.2 percent female. Since the 2000 census, the White-only population decreased to 41 percent, and all other racial groups increased. As of 2010, the majority group was Black/African-American only (43.4 percent). Other racial groups included Asian only (6.3 percent), other race only (6.5 percent), and two or more races (2.8 percent). The population with Hispanic or Latino origin (12.3 percent) also increased since 2000. These demographic data are provided to assist the reader in understanding the comparative impact of substance use by various populations.

Data Sources

This report focuses primarily on the city and county of Philadelphia and includes data from the sources shown below. Unless otherwise noted, fiscal year (FY) refers to a year starting July 1 and ending the following June 30.

- **Treatment admissions data** for residents of Philadelphia County were provided by Behavioral Health Special Initiative, funded by the Office of Addiction Services, Philadelphia Department of Behavioral Health and Intellectual disAbility Services. The data represent self-reported mentions of use of different drugs by people admitted to treatment from 2006 to 2011. Beginning with this report, the analysis will delineate between primary choice of drugs and all drug mentions at treatment admission. This database covers the uninsured and underinsured population of Philadelphia.

- **Mortality data** were provided by the Medical Examiner Office (MEO), Philadelphia Department of Public Health. These data cover mortality cases with toxicology reports indicating the detection of drugs in persons who died in Philadelphia from January 1, 2006, to December 31, 2011. Cause of death designations changed, effective January 1, 2009. These cases included persons who died

from alcohol and/or drug intoxication of one or multiple drugs, as well as persons with some substance detected but who died from other causes. Alcohol cases are only reported in combination with one or more other drugs detected in the system. The MEO does not test for the presence of marijuana/tetrahydrocannabinol(THC)/cannabis.

- **Crime laboratory drug analysis data** came from the National Forensic Laboratory Information System (NFLIS). Data include analysis of drug samples tested by the Philadelphia Police Department Forensic Science Laboratory from 2009 to 2011. Recent change in NFLIS methodology resulted in reports, not items, as units of analysis. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis. The data presented are a combined count of primary, secondary, and tertiary reports for each drug item analyzed. Therefore, the data in this report are not comparable to data in previous years' reports. Data for this report were retrieved in May 2012; therefore, 2011 data are considered preliminary and subject to change.

- **Criminal justice urinalysis data** for adults who are in probation or parole status were derived from reports from the First Judicial District of Pennsylvania, Adult Probation and Parole Department (APPD), from January 1, 2007, to December 31, 2011. Data represent the first-time test for individuals when placed on probation or parole status.

- **Heroin prices** were provided by the Drug Enforcement Agency (DEA) Heroin Domestic Monitor Program (HDMP) 2010 report in draft format. The draft HDMP report indicated that price information was derived from undercover purchases and informants.

- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the Philadelphia Department of Public Health's AIDS Activities Coordinating Office, for cases reported through December 31, 2010.

In addition to these sources, this report draws on focus group discussions with people who were currently enrolled in treatment programs and with people who were actively using drugs. These discussions were conducted in April and May 2012.

DRUG ABUSE PATTERNS AND TRENDS

Data for 2011 showed mixed indicators for drug use and abuse. Data on treatment admissions (shown in exhibits 1–2) and APPD urinalysis indicated the continuing decline in cocaine use that begun in 2008. Treatment admissions mentions (primary and secondary) indicated marijuana as the most commonly used illicit drug (exhibit 1). The four drugs of most concern in Philadelphia continued to be alcohol, marijuana, cocaine, and heroin. Together, these drugs constituted 91.3 percent of the primary drugs of choice for treatment admissions in 2011 (exhibit 1a); these four drugs have consistently been the top drugs for treatment admission. While primary admissions have been declining for cocaine and heroin, they have been increasing for alcohol and marijuana. The mid-level drugs—prescription opioids and benzodiazepines (particularly alprazolam)—constituted high proportions of primary treatment admissions over the time period reviewed in this report. An increase in primary treatment admissions for prescription opioids continued from 2010 to 2011, while primary treatment admissions for benzodiazepines leveled during the same time period. Drugs whose use was considered at low or very low levels included antidepressants, antipsychotics, and the "speed-type" drugs (amphetamines, methamphetamine, and MDMA [3,4-methylenedioxymethamphetamine]).

The demographic characteristics of people who entered treatment in 2011 revealed the overrepresentation of males and Blacks (exhibit 2).

Exhibit 3 shows that in 2011, the average number of drugs detected in decedents with drug-positive toxicology reports was the highest in the last 5 years, and that 2011 also had an increase in the number of drug-positive decedents. Single-drug deaths remained relatively uncommon (exhibit 4). In 2011, morphine/heroin became the most frequently detected drug among decedents (exhibit 3). The leading drug group was "any prescription opioid" (exhibit 5) (the classification did not include morphine).

Exhibit 6 shows the distribution of mode of death in 2011. A majority of 2011 deaths with the presence of drugs were accidents. Statistics in exhibit 6 in this report are not comparable to exhibit 6 in the June 2011 report. In the previous report, mode and cause of death were used interchangeably. In keeping with death certification terminology, analysis of mortality data for this report considered mode or manner to reflect the intent, while the cause of death represented the physical events that brought on death. The underlying cause is the disease or injury that initiated the train of events leading directly to death or the circumstances of the accident or violence that produced the fatal injury. For deaths caused by alcohol and/or drug intoxication, almost all of the deaths were accidental in nature (94.9 percent) (exhibit 6a). The average number of drugs in a decedent who died accidentally from alcohol and/or drug intoxication was 6.32, a much higher number compared with intentional deaths by the same cause (3.57 drugs per decedent). The leading cause of death with the presence of drugs was alcohol and/or drug intoxication.

In 2011, there were more White male decedents (*n*=372) than Black male decedents (*n*=280), and there were more White female decedents (*n*=128) than Black female decedents (*n*=98). Overall, Whites accounted for 50.0 percent of the deaths (*n*=500), followed by Blacks at 37.8 percent (*n*=374), Hispanics at 10.9 percent (*n*=109), and Asians and others with 1.3 percent (*n*=13).

The total number of positive drug reports among drug items analyzed by the Philadelphia Police Forensic Science Laboratory and reported by NFLIS was 27,172 (exhibit 7). The two leading drugs identified among reports were cocaine (33.0 percent, *n*=8,967) and marijuana (32.5 percent, *n*=8,834). The number of positive drug reports for 2011 was lower than for 2009 and 2010; 2011 data were considered preliminary and the reader is cautioned about comparisons to 2009 and 2010, as 2011 data were less complete at the point of data retrieval (May 2012).

The Philadelphia APPD analyzed urine specimens from people placed on probation or parole status. The results of the first testing of each probationer/parolee from 2006 to 2011 (exhibit 8) showed that females were slightly more likely to test positive than males. No data were available from Philadelphia Fire Department's Emergency Medical Services, as the department instituted a new reporting system that precluded reporting on 2011 responses due to drug use/overdose.

Cocaine/Crack

Although cocaine continued to be a drug of abuse in Philadelphia, the declines in several cocaine indicators that were noted in 2008 continued through 2011. Treatment admissions data (primary and secondary mentions combined) showed cocaine as ranking first in 2007; the drug declined to second place in 2008, and then dropped to third place in 2009. Cocaine remained in that ranking

through 2011, behind marijuana and alcohol (exhibit 1). Cocaine ranked fourth, however, among treatment admissions as the primary drug of choice; cocaine constituted 10.23 percent of total primary treatment admissions in 2011. Cocaine and heroin in combination continued to be popular among Philadelphia users. Treatment admissions data indicated that the most frequent secondary drug mention for primary cocaine admissions was heroin and the most frequent secondary drug mention for primary heroin admissions was cocaine. The proportion of primary admissions that was male in 2011 (72.2 percent) did not change substantially from 2010 (72.0 percent). Blacks constituted the majority race (62.4 percent), while less than a one-quarter of primary admissions were White (22.3 percent). Asians and other races constituted 15.2 percent. Hispanics of any race represented 15.5 percent of total cocaine admissions in 2011. Slightly fewer than two-thirds of the primary admissions were age 35 and older.

The number of deaths with the presence of cocaine in 2011 was higher (*n*=264) than in 2010 (*n*=233), a reversal of the decline observed since 2006. However, in 2011, morphine/heroin surpassed cocaine as the most frequently detected drug in mortality cases with the presence of drugs. When the cause of death was alcohol and/or drug intoxication, cocaine was detected in 71.2 percent of those deaths (exhibit 9). Levamisole continued to be detected in cocaine-positive decedents; it reached the highest percentage, at 87.5 percent, ever recorded for this substance (levamisole is combined with cocaine prior to sale on the streets).

NFLIS data in 2011 revealed that cocaine continued to be among the top three drugs identified from items seized and analyzed in NFLIS laboratories. Cocaine represented the highest number of positive reports (*n*=8,967) and accounted for 33.0 percent of all positive drug reports (exhibit 7). While the 2011 data are preliminary, the proportion of positive reports for cocaine was very similar to the previous 2 years.

APPD urinalysis data of adults entering probation or parole in 2011 revealed the presence of cocaine in 22.9 percent of all drug-positive tests, which reflected the continuing decline of cocaine positivity (exhibit 8). There was an increase in the number of individuals tested in 2011 (*n*=5,165) and cocaine tested positive for 10.6 percent of those individuals. Cocaine continued to rank second in the APPD panel.

Heroin/Morphine

According to DEA HDMP data, the average street-level purity of heroin in Philadelphia has declined every year since 2000 (when it was 73.0 percent pure). In 2010, the average street-level purity of heroin purchased in Philadelphia was 40.9 percent pure, which was a decline from 49.8 percent pure in 2009. While this was the lowest purity level for heroin in Philadelphia in more than a decade, it was considered relatively high compared with other HDMP cities (the national average for South American [SA] heroin was 25.9 percent pure). All qualified exhibits purchased in Philadelphia were SA heroin.

Treatment admissions data revealed that heroin was consistently the fourth most mentioned (primary and secondary) drug at admission (exhibit 1). As a primary drug of choice, heroin dropped from second to third place ranking in 2008, and in 2011, constituted 17.7 percent of primary treatment admissions (exhibit 1a). Males constituted 73.3 percent of primary heroin admissions in 2011. Whites accounted for 62.7 percent of primary heroin treatment admissions for heroin in 2011,

followed by Blacks (23.0 percent) and Asians and others (14.2 percent). Hispanics of any race constituted 14.3 percent of primary heroin treatment admissions. Declines in primary treatment admissions for heroin were reported for Whites and Blacks; however the decrease for Whites was greater, from 51.5 percent in 2006 to 29.8 percent in 2011, compared with 8.3 to 6.7 percent for Blacks during the same time period. Primary treatment admissions for heroin have been declining since 2007 across all age groups.

In 2011, deaths with the presence of morphine/heroin (*n*=323) was the highest count since 2006. With the concurrent decline in cocaine detections, the increase in morphine/heroin detection moved the drug to first place rank of the 10 most frequently detected drugs in mortality cases. Detections were for morphine which could include heroin. Detections for 6-acetylmorphine, a heroin metabolite, increased to its highest level since 2006 (*n*=162). In deaths caused by alcohol and/or drug intoxication, morphine/heroin ranked first among all drugs at 77 percent of these deaths (exhibit 9). Among decedents, any opioid or benzodiazepine were commonly detected along with heroin/morphine. NFLIS data revealed that reports identified as heroin among drug items seized and analyzed in NFLIS laboratories constituted the third highest number of positive drug reports (*n*=3,499) in 2011, representing 12.9 percent of all positive reports (exhibit 7). While the NFLIS data for 2011 are considered preliminary, and caution is recommended for interpreting change from 2010 to 2011, the proportion of positive reports for heroin for 2011 was higher than in 2010 (when heroin represented 11.5 percent of all reports).

Other Opioids/Opiates

The nonmedical use of pharmaceutically produced opioid products was increasingly reported by clients entering treatment. Mentions (primary and secondary) of "Other Opiates/Synthetics" by people admitted to treatment programs rose rapidly from 87 in 2007 to 1,120 in 2010 and then declined to 735 in 2011; this number represented 5.19 percent of treatment admission mentions in 2011 (exhibit 1). As primary drug of choice, "Other Opiates/Synthetics" represented 4.5 percent of primary treatment mentions (exhibit 1b). The proportion of primary treatment admissions for other opioids has been steadily increasing since 2007. Of the 735 primary treatment admissions, 72.8 percent were male; 66.4 percent were White; 17.0 percent were Black; 16.7 percent were Asians and other races; and 14.1 percent were of Hispanic ethnicity. The majority of the primary admissions were age 26–34 (52.3 percent).

Not including morphine or heroin, deaths with the presence of "any opioid" (51.6 percent) exceeded all other drug groups in 2011 (exhibit 5). APPD urinalysis data for adults on probation or parole do not distinguish heroin from all opiates/opioids. In 2011, opiates/ opioids were detected in 7.1 percent of all tests (exhibit 8). Opiates/opioids ranked fourth in the APPD data in 2011.

Oxycodone

In 2011, oxycodone was detected in 226 decedents. This represented an increase from 181 detections in 2010, and moved oxycodone up the rank of most frequently detected drugs to fourth place. In 2011, oxycodone was present in 22.6 percent of drug-positive deaths.

Oxycodone represented the fourth most frequently identified drug among all drug reports from drug items seized and analyzed in NFLIS laboratories in 2011 (*n*=1,715); this represented the same

ranking as in 2009 and 2010. As a percentage of all positive drug reports, oxycodone was at 6.3 percent, which represented an increase from 4.5 percent in 2010 and 3.9 percent in 2009 (exhibit 7). Focus group participants in 2012 indicated that cost and availability of this prescription drug continued to affect drug abuse patterns. Questions regarding drug use patterns revealed the continuing practice of switching from oxycodone to heroin.

Methadone

The reader is cautioned in interpreting data in this section. When methadone was detected among MEO cases, it was uncertain whether methadone was used as directed by a physician for the management of pain, as a prescribed adjunctive measure in treatment/recovery programs, and/or in an abusive or recreational manner. MEO detections of methadone in decedents had been in decline but saw a slight increase in 2011. Deaths with the presence of methadone ranked ninth in 2011; this was a decrease from the previous 5 years when it ranked eighth (exhibit 3).

Hydrocodone

The number of detections of hydrocodone in mortality cases in the 5 years prior to 2011 averaged 27 per year. In 2011, there were 67 deaths with positive hydrocodone screens. Hydrocodone ranked ninth in 2011 NFLIS data in the number of positive drug reports among all reports from drug items seized and analyzed by NFLIS laboratories in Philadelphia (exhibit 7). Hydrocodone was the 13th most frequently detected drug in mortality cases in 2011; in 2010, hydrocodone ranked 17th.

Codeine

Based on MEO toxicology results, medications containing codeine appeared to be commonly abused, and use was increasing in Philadelphia. The number of codeine-positive cases almost doubled from 2010 (*n*=98) to 2011 (*n*=188). Codeine detections ranked sixth among all deaths with positive toxicology reports in 2011 (exhibit 3); in 2010, codeine ranked ninth.

Propoxyphene

MEO propoxyphene detections have been decreasing. Propoxyphene ranked 14th among all deaths with positive toxicology reports in the 17-year period from 1994 to 2010; however, there was only 1 propoxyphene-positive MEO case in 2011.

Benzodiazepines

Benzodiazepines, particularly alprazolam, continued to be used in combination with other drugs in Philadelphia, based on death and treatment admissions data. Annual proportions of treatment admissions saw a decline in 2011, after substantial increases from 2007 to 2010 (exhibit 1). While benzodiazepines retained its sixth place rank among all treatment admissions, the number of treatment admissions that included benzodiazepines (primary and secondary mentions) declined from 738 in 2010 to 675 in 2011.

The MEO detected the presence of “any benzodiazepine” in 37.3 percent of all drug-positive decedents in 2011; this proportion represented the second highest of the drug groups (exhibit 5). Three different benzodiazepines were consistently detected in more than one-half of alcohol and/or

drug intoxication deaths (exhibit 9). APPD urinalysis data for adults on probation or parole in 2011 revealed the presence of benzodiazepines in 7.2 percent of all individuals tested; this was the highest percentage in 5 years (exhibit 8).

Alprazolam

Among users of benzodiazepines, alprazolam has been the preferred drug since 2001, based on MEO reports and NFLIS data. Alprazolam was detected in 242 decedents in 2011, representing an 18-increase from 2010. Alprazolam was the third most frequently detected drug among mortality cases with the presence of drugs. Within the last 5 years, alprazolam was consistently the most frequently detected benzodiazepine in MEO cases, with 939 detections among decedents since 2007 (exhibit 3). When the cause of death was determined to be alcohol and/or drug intoxication, alprazolam ranked fifth among all drugs, at 64.1 percent of these deaths (exhibit 9).

In 2011, alprazolam reports represented the fifth highest number of positive drug reports among drug items analyzed in NFLIS laboratories (*n*=1,233). While the number of positive reports was lower than those identified in 2009 and 2010, the 2011 data are considered preliminary and most likely less complete. As a percentage of all positive drug reports, alprazolam constituted 4.5 percent of total reports; this was an increase from the preceding 2 years (exhibit 7).

Diazepam

Diazepam was detected in 111 decedents in 2011, making it the eighth most frequently detected drug during that time period (exhibit 3). Diazepam has consistently ranked in the top 10 most frequently detected drug among mortality cases in the past 5 years.

Clonazepam

Detections of clonazepam among mortality cases have been declining. Clonazepam was detected in 30 decedents in 2010. Clonazepam ranked eighth in the number of positive drug reports among drug items seized and analyzed in NFLIS laboratories in 2011 (*n*=248), accounting for 0.9 percent of all positive reports (exhibit 7).

Other Benzodiazepines

Other benzodiazepines that were detected frequently in 2011 MEO data included nordiazepam (*n*=99), 7-aminoclonzepam (*n*=88), and oxazepam (*n*=57). These benzodiazepines surpassed clonazepam in the ranking of most frequently detected drugs among 2011 decedents with presence of drugs.

Methamphetamine, Amphetamines, MDMA, and MDA

Methamphetamine and amphetamines remained a relatively minor problem in Philadelphia, and use of these drugs appeared to be confined to a small portion of the population, based on MEO and NFLIS data. Treatment admissions data revealed a very small proportion of methamphetamine (0.06 percent) and amphetamine mentions (0.05 percent) in 2011 (exhibit 1). As the primary drug of choice, methamphetamine and amphetamine combined only represented 0.04 percent of treatment admissions with known drug of abuse (exhibit 1a).

MEO data revealed that in 2011, there were 15 detections of (other) amphetamines, 72 detections of methamphetamines, 2 detections of MDMA, and 2 detections of MDA (3,4-methylenedioxyamphetamine). Historically, these drugs ranked very low among the most frequently detected drugs in MEO cases. In 2011, amphetamine ranked 52nd and methamphetamine 67th in the detection of drugs in MEO cases.

NFLIS data for 2011 revealed that out of 27,172 drug-positive results, methamphetamine reports ranked 13th among total reports detected in analyzed drug items (*n*=80); amphetamine ranked 14th (*n*=52); MDMA ranked 19th (*n*=31); and with only 2 positive results, MDA ranked 42nd. Together (*n*=165), these detections accounted for 0.6 percent of the total positive reports among drug items seized and analyzed by NFLIS laboratories.

APPD urinalysis data of adults on probation or parole in 2011 revealed the presence of amphetamines in 0.4 percent of adults who tested positive for any drug and 1.0 percent of all individuals tested (exhibit 8).

Marijuana

Since 2008, marijuana has emerged as the leading illicit drug in Philadelphia. Marijuana ranked first in primary and secondary drugs mentioned at admission to treatment (exhibit 1). Marijuana accounted for 21.4 percent of primary treatment admissions in 2011 (exhibit 1a). This represented a substantial increase from 2007, when primary treatment admissions for marijuana constituted 15.8 percent of all admissions. Males represented 87.8 percent of primary marijuana treatment admissions in 2011. Blacks accounted for 76.6 percent of primary treatment admissions for marijuana, followed by Whites (10.0 percent) and Asians and others (13.0 percent). No one age category constituted the majority of primary marijuana treatment admissions. For youths age 17 and younger, marijuana was overwhelmingly the primary drug of choice for treatment admissions from 2007 to 2009. While marijuana no longer constituted the majority of primary treatment admissions in 2010 and 2011, the number of youths admitted primarily for marijuana averaged 75 for all 5 years. Beginning in 2010, primary treatment admissions have increased substantially.

Preliminary NFLIS data for 2011 showed marijuana represented a slightly lower proportion of reports among analyzed drug items than cocaine, at 32.5 and 33.0 percent, respectively (exhibit 7). In the prior 2 years, marijuana consistently represented the highest percentage of positive reports.

APPD urinalysis data, the first tests of adults placed on probation or parole, continued to detect the presence of marijuana in more samples than any other drug, with marijuana representing two-thirds (67.0 percent) of the tests that were positive for any drug in 2011 (exhibit 8). Marijuana continued to be the most frequently detected drug among first timers to probation or parole.

PCP

Following steady increases in primary and secondary mentions of PCP (phencyclidine) at admission to treatment from 2007 to 2010, there was a 34.7-percent decrease in PCP mentions from 2010 to 2011 (exhibit 1). As a primary drug of choice at treatment admission, PCP has historically been low, averaging 1.0 percent of primary drug mentions per year. In 2011, PCP primary treatment admissions were higher, accounting for 1.4 percent of all primary admissions (exhibit 1a).

There were 92 PCP detections in MEO cases in 2011; this number moved PCP into the top 10 most frequently detected drugs for the first time in Philadelphia reporting. In the previous 5 years, 2006–2010, the average number of deaths with the presence of PCP was 64. Data from focus groups conducted in April and May 2012 suggested an increase in PCP popularity in the Philadelphia area. Users indicated PCP as more popular than previously reported, with a few noting that some users were switching from crack cocaine to PCP.

PCP reports represented the sixth highest number of positive reports among total reports from drug items seized and analyzed in NFLIS laboratories in 2011 (*n*=475), accounting for 1.7 percent of the total (exhibit 7). APPD urinalysis data of adults on probation or parole in 2010 revealed the presence of PCP in 10.7 percent of the drug-positive tests. From 2007 to 2011, PCP continued to be detected among adults entering probation or parole on an average of 5.3 percent. PCP positivity ranked fifth in the APPD panel.

Antidepressants

In 2011, 17.2 percent of all deaths with the presence of drugs (*n*=172) tested positive for at least 1 antidepressant. This percentage represented a decrease in the detection of antidepressants among mortality cases. The antidepressants most frequently detected by the MEO were citalopram (*n*=88) and nortriptylene (*n*=34).

Antipsychotics

MEO toxicology reports revealed the presence of antipsychotic drugs (exhibit 10). In past analyses, the relatively rare presence of more than one antipsychotic in a decedent led to the hypothesis that these drugs were not abused. The close correspondence between the numbers of different antipsychotic drugs that were detected to the number of individuals with antipsychotic detections had lent support to that hypothesis. In 2011, the ratio of number of detections to number of decedents increased, suggesting that antipsychotics were being used beyond what was prescribed. Data from focus groups in 2011 and 2012 indicated the use of antipsychotics for managing drug abuse. Specifically, current and recent drug users stated that they used antipsychotics as sleep aids. The three drugs most frequently detected from 2007 to 2011 were quetiapine, clozapine, and olanzapine.

Alcohol

Treatment admissions data (exhibit 1) revealed that alcohol was the second most mentioned drug (including primary and secondary mentions) from 2006 to 2011, with the exception of 2008, when it was third. As a primary drug of choice, alcohol ranked first among the 8,799 treatment admissions in 2011 (exhibit 1a). Males constituted 75.4 percent of primary alcohol treatment admissions in 2011. Blacks accounted for 62.8 percent of primary alcohol treatment admissions in 2011, followed by Whites (26.6 percent) and Asians and others (10.6 percent). Hispanics of any race accounted for 9.7 percent. While youth (17 and younger) made up 4.9 percent of primary treatment admissions for alcohol, almost one-half of youths admitted for treatment in 2011 (47.3 percent) reported alcohol as their primary drug of choice. There was an increase in youths seeking treatment in 2011 (*n*=300). In recent years, there has been a shift in programmatic focus to expand adolescent intervention services; this is reflected in the increase in youths admitted to treatment for alcohol abuse.

The number of deaths with the presence of alcohol in combination numbered 200 in 2011 (exhibit 3). This number of detections was among the lowest reported for alcohol in the past 5 years. Alcohol-in-combination with other drugs ranked as the fifth most detected substance in 2011. Among decedents whose cause of death was determined to be alcohol and/or drug intoxication, 100 percent of these deaths tested positive for alcohol.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

In 2010, Philadelphia recorded 769 adult HIV/AIDS cases. Surveillance investigation indicated that 10.2 percent (*n*=79) of these cases were associated with injection drug use. Trend data in HIV/AIDS transmission continued to show a decline in cases associated with injection drug use. Of the 772 newly diagnosed cases in 2010, 70 cases, or 11.1 percent, resulted from infected needle sharing. The rates of HIV/AIDS and newly diagnosed HIV cases showed a clear decline in transmission risk associated with sharing infected needles (exhibits 11 and 12).

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Exhibit 1. Number of Drugs of Abuse (Primary and Secondary Mentions) Reported at Admission to Substance Abuse Treatment by Uninsured and Underinsured Individuals in Philadelphia: 2006–2011

Drugs Mentioned	Number in 2006	Number in 2007	Number in 2008	Number in 2009	Number in 2010	Number in 2011
Marijuana	3,647	3,384	3,592	3,826	3,486	3,698
Alcohol	3,893	3,406	3,378	3,489	3,477	3,533
Cocaine	4,701	3,859	3,439	3,182	2,868	2,731
Heroin	3,578	2,775	2,503	1,994	2,179	1,864
Other Opiates/Synthetics	105	87	136	513	1,120	735
Benzodiazepines	307	272	512	694	738	675
PCP (Phencyclidine)	368	325	458	583	649	424
Other Sedatives/Hypnotics	968	692	463	290	389	304
Other Hallucinogens	261	192	169	163	105	49
Barbiturates	1	1	3	21	51	56
Methamphetamine	2	2	2	16	35	9
Other Tranquilizers	1	1	0	10	15	6
Over-the-Counter	—	5	—	3	15	1
Other Amphetamines	79	49	46	33	14	8
Inhalants	10	11	8	3	7	4
Other (Not Listed)	140	84	32	44	78	47

SOURCE: Behavioral Health Special Initiative

Exhibit 1a. Number and Percentage of Primary Drugs of Abuse at Treatment Admission by Uninsured and Underinsured Individuals in Philadelphia: 2011

	Number of Treatment Admissions	Percentage of Admissions with Known Drug of Abuse
Primary Alcohol	3,233	42.0
Primary Marijuana	1,644	21.4
Primary Heroin	1,363	17.7
Primary Crack/Cocaine	788	10.2
Primary Other Opiates	348	4.5
Primary Methamphetamine and Amphetamine	3	0.0
Primary MDMA	0	0.0
Primary PCP	109	1.4
Primary Benzodiazepines	135	1.8
All Other Drugs	77	0.0

SOURCE: Behavioral Health Special Initiative

Exhibit 1b. Number and Percentage of Route of Administration of Primary Drugs of Abuse Reported at Treatment Admission by Uninsured and Underinsured Individuals in Philadelphia: 2011

ROUTE OF ADMINISTRATION	Number of Treatment Admissions	Percentage of Treatment Admissions
Smoking	2,332	25.9
Other including Oral	5,770	64.1
Injection/Skin Popping	862	9.6
Intranasal or Sniffing	33	0.4
Not Reported	0	0

SOURCE: Behavioral Health Special Initiative

Exhibit 2. Demographic Profiles by Number and Percentage of Individuals Who Entered Substance Abuse Treatment in Philadelphia: 2011

	Number of Treatment Admissions	Percentage of Treatment Admissions
GENDER		
Male	6,617	73.5
Female	2,380	26.5
RACE/ETHNICITY		
Black	4,690	52.1
White	2,873	31.9
Asian/Other Race(s)	1,434	15.9
Unknown/Unrecorded	0	
Hispanic (Any Race)	1,080	12.0
AGE		
17 and Younger	336	5.4
18-25	1,896	18.9
26–34	2,927	18.5
35 and Older	3,838	14.5

SOURCE: Behavioral Health Special Initiative

Exhibit 3. Number of Medical Examiner Office (MEO) Cases With the Presence of the Most Frequently Detected Drugs, and Average Number of Drugs per Death, in Philadelphia: 2007–2011[1]

MEO-Identified Drugs	Number in 2007	Number in 2008	Number in 2009	Number in 2010	Number in 2011
Morphine/Heroin	228	246	221	206	323
Cocaine	389	338	311	233	264
Alprazolam[1]	121	172	200	204	242
Oxycodone	127	183	159	181	226
Alcohol-in-Combination	264	223	227	216	200
Diphenhydramine	170	172	201	158	126
Diazepam[2]	89	120	118	110	111
Codeine	153	152	93	98	188
Methadone	116	120	104	82	100
PCP (Phencyclidine)[3]	70	61	51	62	92
Total Deaths with the Presence of Drugs	**964**	**1,040**	**1,024**	**936**	**995**
Total Drugs Mentioned	**3,531**	**3,908**	**3,735**	**3,341**	**4,550**
Average Number of Drugs per Death	**3.66**	**3.76**	**3.65**	**3.57**	**4.56**

[1]Based on 2011 rankings.
[2]Increased testing protocols for benzodiazepines were instituted July 2008.
[3]PCP detections ranked below the top 10 most frequent drugs in previous CEWG reporting.
SOURCE: Medical Examiner Office, Philadelphia Department of Public Health

Exhibit 4. Number and Percentage of Single-Drug Mortality Cases Detected by the Medical Examiner Office in Philadelphia: 2007–2011

	2007	2008	2009	2010	2011
Number of Single-Drug Deaths	158	160	145	123	100
Percentage of All Deaths	16.4	15.4	14.2	13.1	10.0

Note: Denominator is the number of Medical Examiner Office cases with presence of drugs that meets the criteria for reporting to CEWG (*n*=995 for 2011).
SOURCE: Medical Examiner Office, Philadelphia Department of Public Health

Exhibit 5. Percentage of Most Commonly Detected Classes of Drugs Among Medical Examiner Office Cases with Presence of Drugs in Philadelphia: 2009–2011

Year	Percentage in 2009	Percentage in 2010	Percentage in 2011
Any Prescription Opioid	39.3	42.7	51.6
Any Benzodiazepine	34.3	35.7	37.3
Any Antidepressant	26.1	28.1	17.2
Any Antipsychotic	5.7	6.6	1.0
Any Speed-Type Drug	3.7	2.6	2.0

Note: Heroin and cocaine are not included in these classifications.
SOURCE: Medical Examiner Office, Philadelphia Department of Public Health

Exhibit 6. Number and Percentage of Mode or Manner of Death for Medical Examiner Office Cases with Presence of Drugs and Average Number of Drugs Detected by Mode in Philadelphia: 2011[1]

Mode/Manner	Count Of Deaths	Percentage by Mode	Average Number of Drugs Per Case
Accident	523	52.6	6.55
Homicide	163	16.4	3.43
Natural	203	20.4	4.10
Suicide	101	10.2	4.89

[1]Statistics for this table are not comparable to Exhibit 6 tables in previous CEWG reports.
SOURCE: Medical Examiner Office, Philadelphia Department of Public Health

Exhibit 6a. Number and Percentage of Mode or Manner of Death for Alcohol and/or Drug Intoxication Deaths in Philadelphia: 2011[1]

Mode/Manner	Number of Deaths	Percentage by Mode/Manner
Accident	445	94.9
Suicide	21	4.5
Homicide	2	0.4

[1]Statistics for this table are not comparable to exhibit 6 tables in previous CEWG reports.
SOURCE: Medical Examiner Office, Philadelphia Department of Public Health

Exhibit 7. Top 10 Drug Reports Identified Among Drug Items Analyzed by NFLIS Laboratories in Philadelphia: 2009–2011[1]

Rank in 2011	Drug	Reports 2009 (*N*=35,802)	Percentage of all 2009 Reports	Reports 2010 (*N*=33,964)	Percentage of all 2010 Reports	Reports 2011 (*N*=27,172)	Percentage of all 2011 Reports
1	Cocaine	11,810	33.0	10,923	32.2	8,967	33.0
2	Cannabis/THC	13,111	36.6	12,865	37.9	8,834	32.5
3	Heroin	4,244	11.9	3,910	11.5	3,499	12.9
4	Oxycodone	1,392	3.9	1,513	4.5	1,715	6.3
5	Alprazolam	1,245	3.5	1,278	3.8	1,233	4.5
6	Phencyclidine	914	2.6	652	1.9	475	1.7
7	Codeine	254	0.7	286	0.8	281	1.0
8	Clonazepam	238	0.7	241	0.7	248	0.9
9	Hydrocodone	226	0.6	194	0.6	147	0.5
10	Buprenorphine	122	0.3	164	0.5	144	0.5

[1]2011 data are provisional and most likely less complete than 2009 and 2010.
SOURCE: NFLIS, DEA, retrieved May 2012

Exhibit 8. Number of Drug-Positive Urinalysis Results of Adults in Probation or Parole Status Who Were Tested for the First Time, and Percent Positive for Any Drug, in Philadelphia: 2007–2011

Drug/Drug Group	Number in 2007	Number in 2008	Number in 2009	Number in 2010	Number in 2011
Marijuana	1,741	1,904	1,406	1,560	1,598
Cocaine	1,176	1,148	581	520	547
Benzodiazepines	338	477	296	335	371
Methadone	239	258	164	*[1]	*
Opioids	325	441	317	297	369
Phencyclidine (PCP)	301	354	263	285	255
Alcohol	169	189	113	*	*
Barbiturates	30	50	27	*	*
Amphetamines	23	35	18	19	23
Propoxyphene	0	12	26	2	0
Total Number of Persons Tested	**6,077**	**6,835**	**4,752**	**4,806**	**5,165**
Total Number of Positive Persons	**3,133**	**3,437**	**2,337**	**2,281**	**2,384**
Percentage That Tested Positive	**51.6**	**50.3**	**49.2**	**47.5**	**46.2**

Note: Some people tested positive for more than one drug.
[1]There was no test for these drugs in 2010 and 2011.
SOURCE: Adult Probation and Parole Department, First Judicial District, Philadelphia

Exhibit 9. Number of Detections of Select Drugs, All Mortality Cases with Presence of Drugs, Compared With Alcohol and/or Drug Intoxication Deaths, in Philadelphia: 2010–2011

Drug	2010 All Causes Number=	2010 Drug Intoxication Number=	2010 Drug Intoxication Percentage=	2011 All Causes Number=	2011 Drug Intoxication Number=	2011 Drug Intoxication Percentage=
Alcohol-in-Combination	216	70	32.4	200	200	100.0
Alprazolam	204	120	58.8	242	155	64.05
Citalopram	79	32	40.5	88	45	51.14
Cocaine	233	146	62.7	264	188	71.21
Diazepam	110	66	60.0	112	64	57.14
Heroin/Morphine	206	138	67.0	323	251	77.23
Methadone	82	53	64.6	100	67	67.00
Oxycodone	181	107	59.1	226	121	53.54
PCP (Phencyclidine)	62	19	30.6	92	43	46.74
Quetiapine	44	23	52.3	38	24	63.16

SOURCE: Medical Examiner Office, Philadelphia Department of Public Health

Exhibit 10. Number of Antipsychotic Drugs Detected by the Medical Examiner Office in Decedents, Versus Unique Cases with at Least One Antipsychotic Drug, in Philadelphia: 2007–2011

	Number in 2007	Number in 2008	Number in 2009	Number in 2010	Number in 2011
Quetiapine	29	49	37	44	38
Olanzapine	19	19	9	8	5
Clozapine	5	2	6	7	8
Haloperidol	2	2	1	1	1
All others	5	3	8	6	11
Total detections	**60**	**75**	**61**	**66**	**57**
Unique cases	**57**	**74**	**58**	**62**	**34**

SOURCE: Medical Examiner Office, Philadelphia Department of Public Health

Exhibit 11. Number and Percentage, by Transmission Risk, of AIDS Diagnoses, by HIV Diagnosis Year, in Philadelphia: 2008–2010

	2008		2009		2010	
	Number	Percentage	Number	Percentage	Number	Percentage
IDU[1]	135	13.6	137	11.1	79	10.2
MSM[2] and IDU	14	1.4	16	1.1	7	0.9
MSM	335	33.7	343	38.1	322	41.8
Heterosexual Contact	480	48.3	512	27.0	333	43.3
No Risk Identified	28	2.8	36	22.4	28	3.6

[1]IDU=injection drug user.
[2]MSM=men who have sex with men.
SOURCE: AIDS Activities Coordinating Office, Philadelphia Department of Public Health

Exhibit 12. Number and Percentage, by Transmission Risk Exposure, of Newly Diagnosed HIV Cases, in Philadelphia: 2008–2010

	2008		2009		2010	
	Number	Percentage	Number	Percentage	Number	Percentage
IDU[1]	126	13.5	102	11.1	79	10.2
MSM[2] and IDU	13	1.3	11	1.2	7	0.9
MSM	308	33.1	345	37.7	322	41.7
Heterosexual Contact	445	47.8	245	26.8	331	42.8
No Identified Risk	29	3.1	206	22.5	28	3.6

[1]IDU=injection drug user.
[2]MSM=men who have sex with men.
SOURCE: AIDS Activities Coordinating Office, Philadelphia Department of Public Health

Drug Abuse Patterns and Trends in Phoenix and Arizona: 2011

James K. Cunningham, Ph.D.[1]

ABSTRACT

Cocaine-related inpatient hospital admissions in Maricopa County (Phoenix area) declined from 2007 to 2011. Cocaine treatment episodes (as a percentage of total treatment episodes) were also lower in 2011 compared with 2007. Amphetamine-related hospital admissions increased slightly during 2009–2011 (most amphetamine-related hospital admissions are probably related to methamphetamine, a type of amphetamine). Methamphetamine treatment episodes (as a percentage of total treatment episodes) were flat in 2010–2011. Heroin/opioid-related hospital admissions increased in 2011, extending an upward trend that has continued since 2005 (heroin/opioid-related hospital admissions include admissions related to heroin and other opioids). Primary heroin treatment episodes (as a percentage of total treatment episodes) decreased in 2011. Marijuana/cannabis-related hospital admissions increased in 2011, continuing an upward trend that began in 2007. Primary marijuana-related treatment episodes (as a percentage of total treatment episodes) also increased in 2011. In order, the top four drugs identified among reports from drug items submitted to the National Forensic Laboratory Information System (NFLIS) from the Maricopa County area during 2011 were marijuana/cannabis, methamphetamine, heroin, and cocaine. Oxycodone, a prescription opioid, was the fifth most common drug identified among reports from drug items analyzed by NFLIS laboratories. Reports of MDMA (3,4-methylenedioxymethamphetamine)/ecstasy among drug items analyzed in NFLIS laboratories decreased, while those for TFMPP (1-3-(trifluoromethyllphenyl)piperazine) increased. Poison control center calls for THC homologs (cannabimimetics) such as Spice or K2 and "bath salts" (substituted cathinones) increased during 2011. For many years, black tar heroin and Mexican brown heroin have been essentially the only forms of the drug available in Arizona. In 2011, however, some white powder heroin was being sold on the streets as well. Emergent human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) rates related to injection drug use have declined slowly but steadily over the past several years.

INTRODUCTION

Area Description

Maricopa County, which includes the State's capital, Phoenix, is Arizona's primary population center, with 3,817,117 residents in 2010, making it the fourth most populous county in the United States. Whites (non-Latino) constituted 58.8 percent of the population; 29.6 percent were Latino; 5.0 percent were African-American; 3.5 percent were Asian; and 2.1 percent were American Indian/Alaska

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Native. Maricopa County is located in the central part of the State and includes more than 20 cities and towns, as well as multiple Indian reservations, the largest of which are the Salt River Pima Maricopa Indian Community and the Gila River Indian Community.

Data Sources

This report is based on the most recent available data obtained from the following sources:

- **Treatment episode data** came from the Arizona Department of Health Services (ADHS), Division of Behavioral Health Services (DBHS), Division of Clinical Recovery Services, Bureau of Grants Management, Training and Administration, Evaluation Unit. Treatment data include data for clients age 18 and older.

- **Hospital admissions (inpatient) data** came from analyses conducted by the University of Arizona, Department of Family and Community Medicine, using hospital discharge records from the Arizona Hospital Discharge Data System operated by the Arizona Department of Health Services.

- **Drug purity and price data** were obtained from analyses conducted by the University of Arizona, Department of Family and Community Medicine, using the Drug Enforcement Administration (DEA) System to Retrieve Information from Drug Evidence (STRIDE).

- **Law enforcement data,** including drug trafficking patterns, were obtained from the DEA Phoenix Field Division.

- **Forensic drug analysis data** were obtained from the DEA National Forensic Laboratory Information System (NFLIS). NFLIS methodology allows for the accounting of up to three drug reports per item submitted for analysis. The data presented are a combined count including primary, secondary, and tertiary reports for each item for the selected drugs. Data for 2011 are provisional and are subject to change.

- **Poison control center call data** were provided by the Good Samaritan Poison and Drug Center, Banner Health.

- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** were obtained from the ADHS, Bureau of Epidemiology and Disease Control, Office of HIV/STD Services, *HIV/AIDS Annual Report, March 2011*.

- **Population data** were obtained from the U.S. Census Bureau.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

In 2011, ADHS/DBHS data indicated that primary cocaine treatment episodes constituted 5 percent of the total treatment episodes in Maricopa County (Phoenix area) (exhibit 1). Cocaine treatment episodes (as a percentage of total treatment episodes) increased slightly in 2011, but were still below levels seen in 2007–2008 (exhibit 2). Cocaine-related inpatient hospital admissions in

Maricopa County declined from 2007 to 2011 (exhibit 3). In 2011, cocaine-related hospitalizations were substantially lower than heroin/opioid-related, cannabis-related, and amphetamine-related admissions (most amphetamine-related hospital admissions involve methamphetamine, a type of amphetamine).

Cocaine was the fourth most common drug reported among items seized and analyzed in NFLIS laboratories for Maricopa County (exhibit 4). Counts of NFLIS cocaine reports decreased in 2011 (exhibit 5). Median cocaine purity (acquisitions/seizures of less than 10 grams) in States bordering Mexico peaked in 2006, declined through 2010, and had a slight increase in the first part of 2011. After rising steadily from 2005 to 2009, the price of cocaine in States bordering Mexico remained steady at elevated levels through the first part of 2011 (exhibit 6).

Heroin

As a percentage of total treatment episodes, ADHS/DBHS data indicated that primary heroin treatment episodes increased from 2007 to 2010, and then decreased in 2011 (exhibit 2). Primary heroin/opioid-related hospital admissions in Maricopa County increased in 2011, extending an upward trend that has generally continued since 2005 (exhibit 3). Heroin/opioid admissions include admissions related to heroin as well as admissions related to other opioids (e.g., oxycodone and hydrocodone). Hospital data coding is such that specific types of opioids cannot be separated for analysis.

Heroin was the third most common drug reported among items seized and analyzed by NFLIS laboratories in Maricopa County (exhibit 4). Counts of NFLIS heroin reports increased in 2011 (exhibit 5). Since 2000, the median purity of heroin has generally decreased (acquisitions/seizures less than 10 grams) (exhibit 7). The median price of heroin was higher in the second half of the 2000s compared with the first. There was a slight increase in price in the first part of 2011.

For many years, black tar heroin and Mexican brown heroin have been essentially the only forms of the drug available in Arizona. In 2011, however, some white powder heroin was being sold on the streets as well.

Other Opiates/Narcotics

In 2011, opioids other than heroin/morphine reported as the primary drug of abuse constituted approximately 6 percent of the treatment episodes in Maricopa County (exhibit 1). In 2011, oxycodone and hydrocodone were the fifth and seventh most common drugs, respectively, identified among reports from drug items seized and analyzed by NFLIS laboratories (exhibit 4). There was a sharp increase in oxycodone reports among drug items analyzed in NFLIS laboratories during 2009–2011 (exhibit 8).

Benzodiazepines/Barbiturates

Two benzodiazepines—alprazolam and clonazepam—were among the top 10 most frequently identified drug reports from items analyzed in the NFLIS system in Maricopa County in 2011 (exhibit 4). NFLIS reports for alprazolam rose sharply during 2009–2011 (exhibit 9).

Methamphetamine/Amphetamines

The percentage of treatment episodes associated with methamphetamine declined from 29 percent in 2007 to 20 percent in 2010 and remained at 20 percent in 2011 (exhibit 2). Despite this decline, methamphetamine was the second most common illicit drug associated with treatment episodes in Maricopa County (exhibit 1). Amphetamine-related hospital admissions were flat during 2008 and the first half of 2009, but rose slightly in the second half of 2009 and continued rising slightly through the second half of 2011 (exhibit 3). Hospital admissions in 2011, however, were still below peak levels reached in 2005–2006.

Methamphetamine reports were the second most common reports identified in drug items analyzed by NFLIS laboratories (exhibit 4); numbers changed little from 2010 to 2011 (exhibit 5). Methamphetamine prices (acquisitions/seizures less than 10 grams) in States bordering Mexico fell sharply during 2000–2002, were flat 2003–2005, rose sharply in 2006, were flat 2007 and 2008, then fell sharply through the first part of 2011 (Exhibit 10). The pattern in methamphetamine median purity was approximately the opposite of that in price. The median purity of acquisitions/seizures less than 10 grams in States bordering Mexico has been high since 2009.

Marijuana/Cannabis

Twenty-four percent of treatment episodes in 2011 were associated with marijuana, making it the most common illicit drug associated with treatment episodes in Maricopa County (exhibit 1). The percent of treatment episodes related to marijuana has been increasing since 2007 (exhibit 2). Cannabis hospital admissions increased slightly in 2011, continuing an upward trend that began in 2007 (exhibit 3).

Marijuana/cannabis reports among drug items seized and analyzed in NFLIS laboratories in 2011 declined slightly (exhibit 5), but nevertheless constituted the largest number of reports for any drug in 2011 (exhibit 4).

PCP

Reports for PCP (phencyclidine) detected among drug items seized and analyzed by NFLIS laboratories were consistently low; there were 13 PCP reports in 2009, 16 reports in 2010, and 15 reports in 2011.

Other Drugs

In 2009, 2010, and 2011, there were 3, 8, and 1 NFLIS reports, respectively, of LSD (lysergic acid diethylamide); there were 1, 193, and 111 NFLIS reports, respectively, of MDMA (3,4-methylenedioxymethamphetamine); there were 28, 27, and 29 reports, respectively, of BZP (1-benzylpiperazine); and there were 4, 17, and 64 reports, respectively, of TFMPP (1-(3-trifluoromethylphenyl) piperazine).

In 2009, 2010, and 2011, there were 139, 97, and 149 NFLIS reports, respectively, for carisoprodol. This drug, a muscle relaxant, was among the 10 most common drugs reported from drug items analyzed by NFLIS laboratories in Maricopa County in 2011 (exhibit 4).

Poison control center calls regarding drugs generically known as THC homologs (cannabimimetics) and "bath salts" (substituted cathinones) increased during 2010 and 2011 (exhibits 11 and 12).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

HIV/AIDS

In Arizona, 5-year emergent HIV/AIDS rates (per 100,000 per year) related to injection drug use have declined slowly but steadily over the past several years (exhibit 12).

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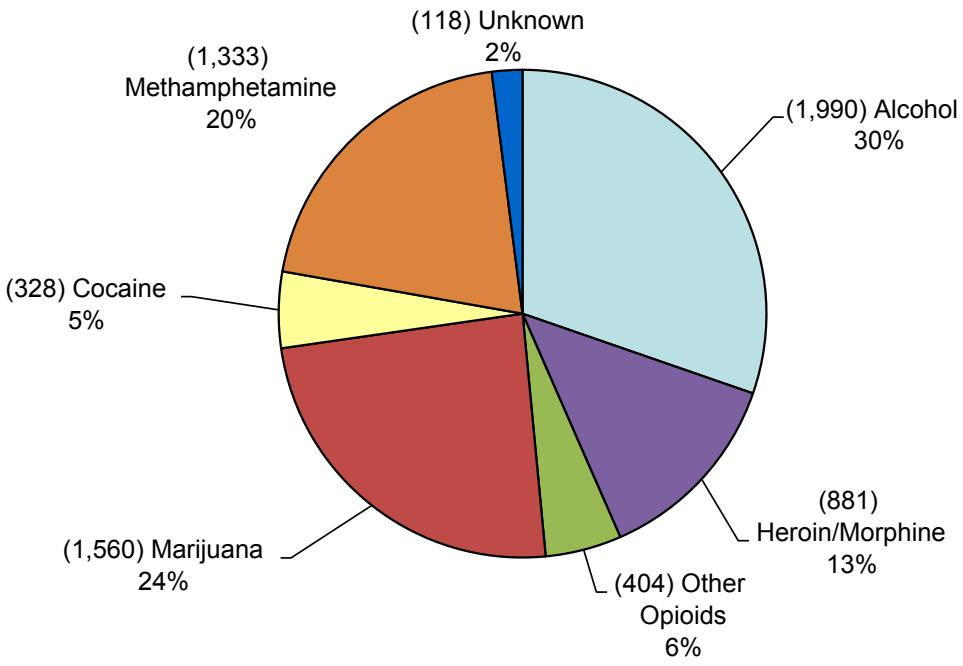
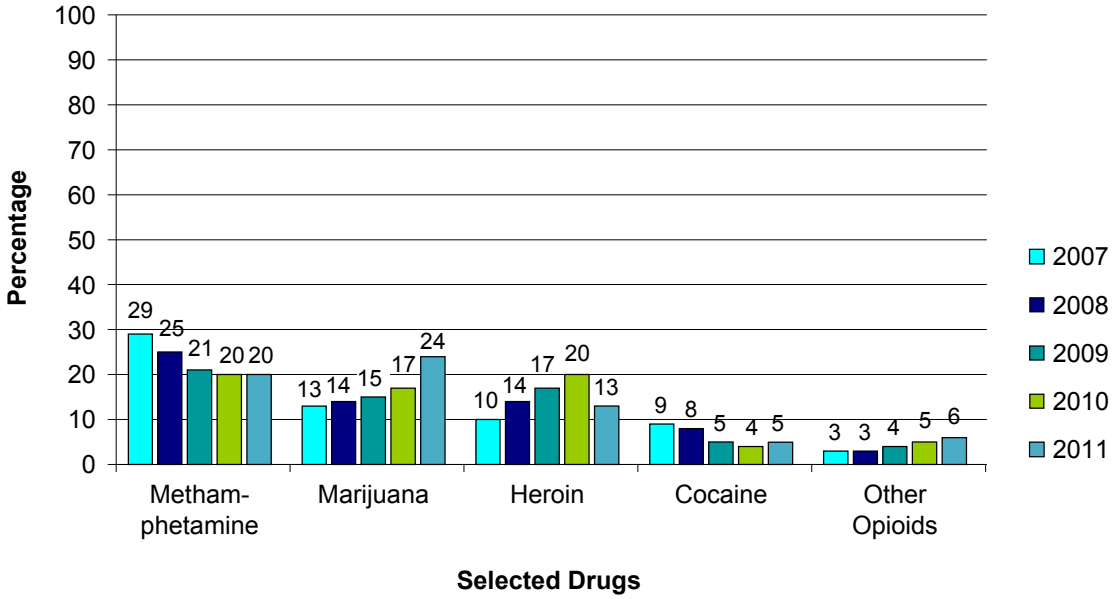
Exhibit 1. Number and Percentage of Treatment Episodes, by Primary Substance Used, in Maricopa County (Phoenix Area): 2011



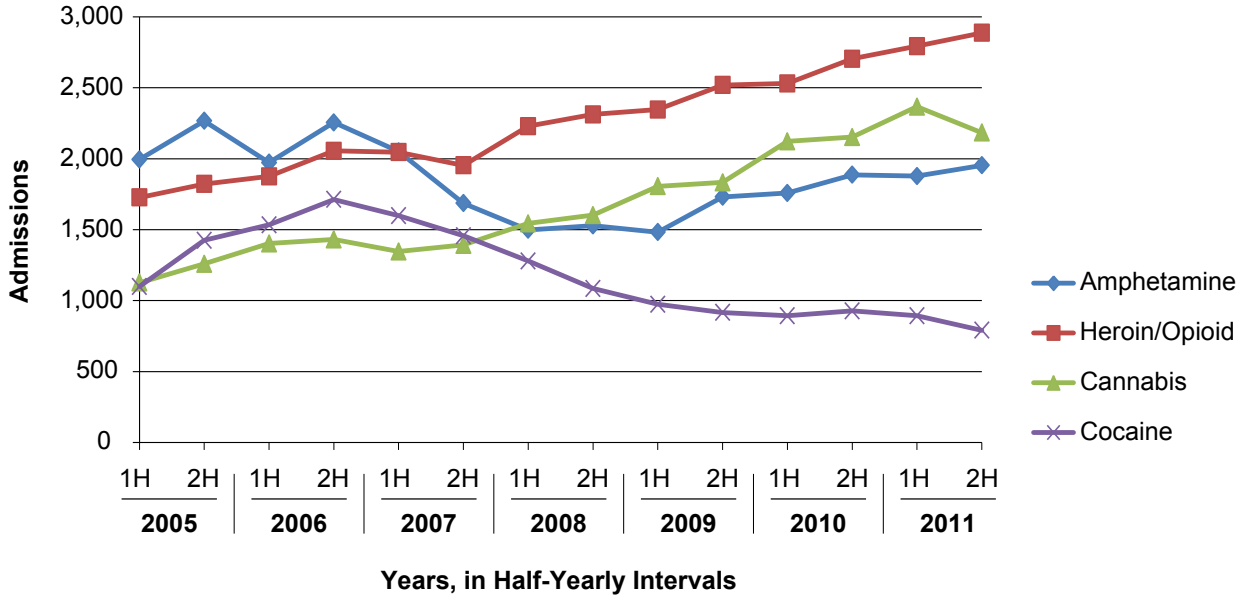
SOURCE: Arizona Department of Health Services

Exhibit 2. Percentage of Treatment Episodes, by Primary Substance Used, in Maricopa County (Phoenix Area): 2007–2011



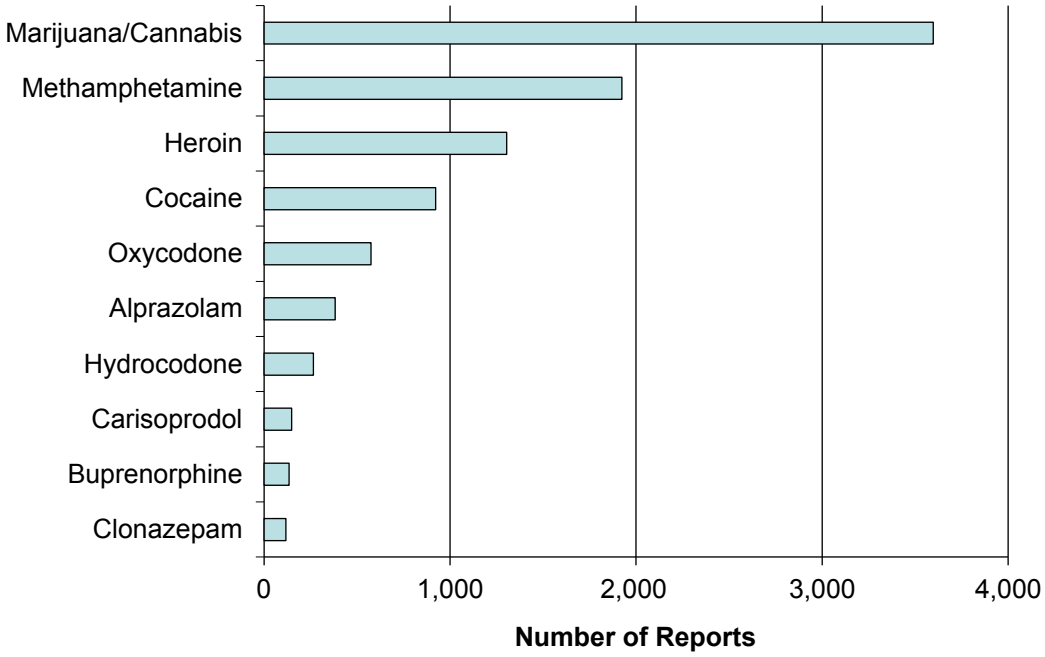
SOURCE: Arizona Department of Health Services

Exhibit 3. Number of Amphetamine-, Heroin/Opioid-, Cannabis-, and Cocaine-Related Hospital Admissions in Maricopa County (Phoenix Area): 2005–2011, by Half-Years



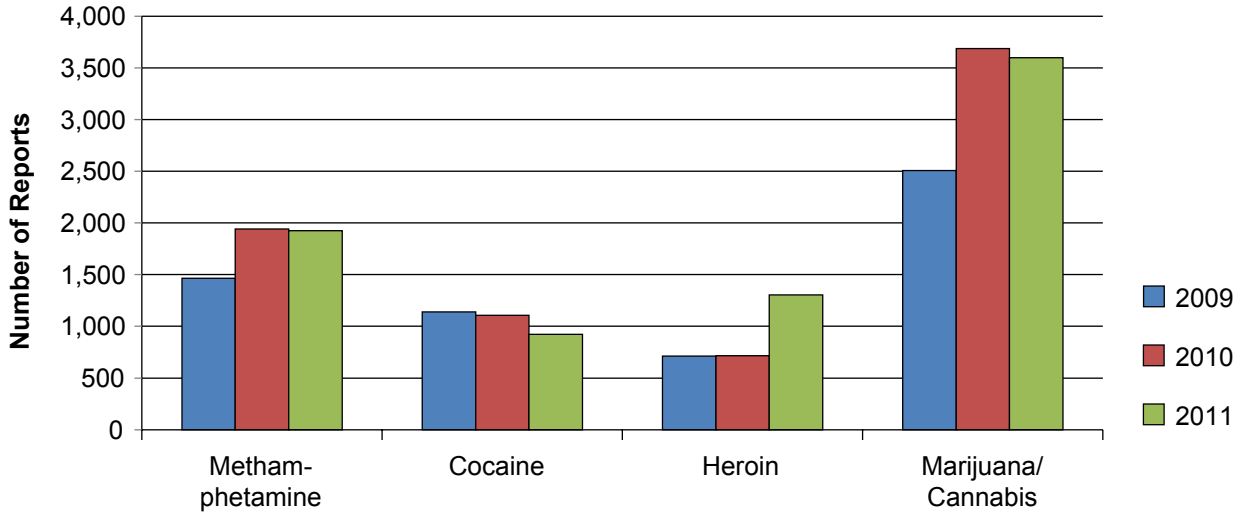
SOURCE: Arizona Hospital Discharge Data System, Arizona Department of Health Services, analysis by the University of Arizona Department of Family and Community Medicine

Exhibit 4. Top 10 Drug Reports Among Drug Items Analyzed in NFLIS Laboratories, by Number, in Maricopa County (Phoenix Area): 2011



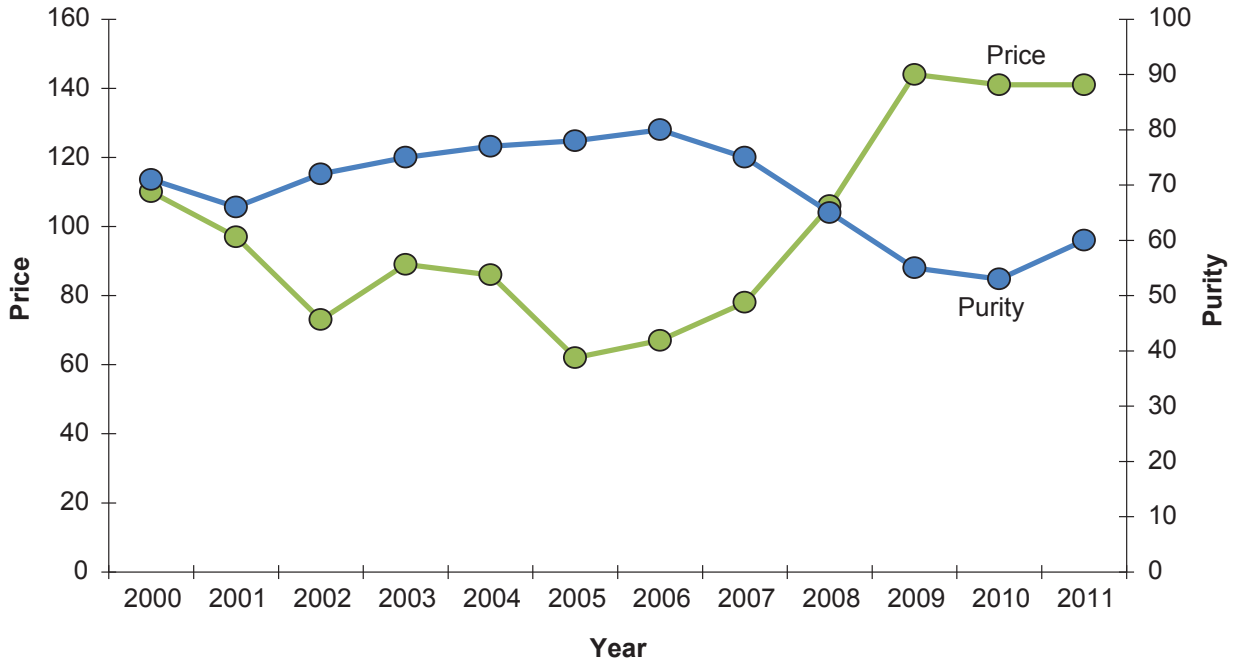
SOURCE: NFLIS, DEA

Exhibit 5. Number of Methamphetamine, Cocaine, Heroin, and Marijuana/Cannabis Reports Among Drug Items Analyzed in NFLIS Laboratories in Maricopa County (Phoenix Area): 2009–2011



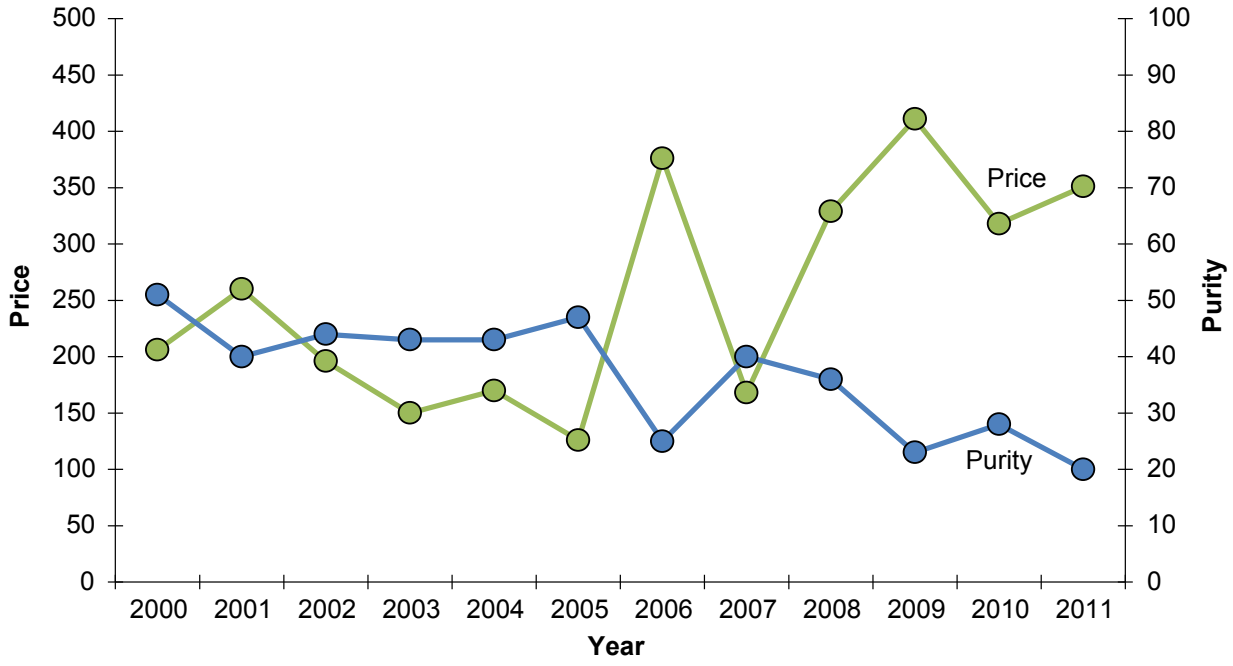
SOURCE: NFLIS, DEA

Exhibit 6. Median Cocaine Purity and Price in States Bordering Mexico: 2000–2011[1]



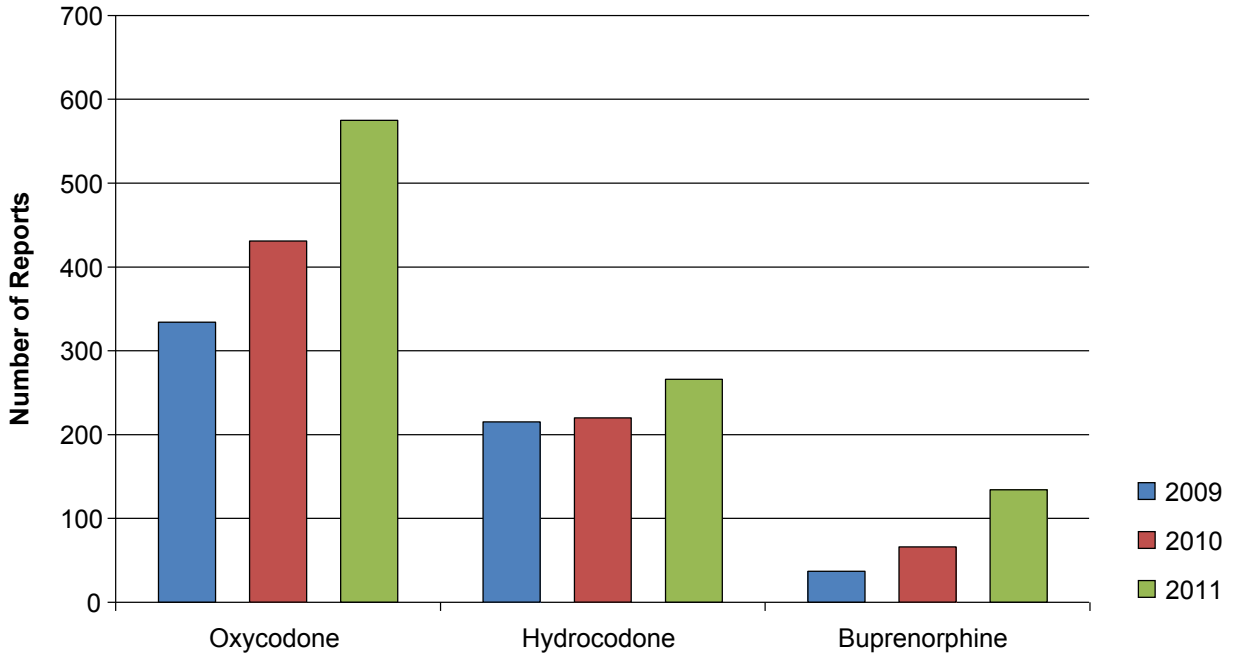
[1]Acquisitions/seizures of less than 10 grams. Partial data for 2011.
SOURCE: STRIDE, analysis by the University of Arizona Department of Family and Community Medicine

Exhibit 7. Median Heroin Purity and Price in States Bordering Mexico: 2000–2011[1]



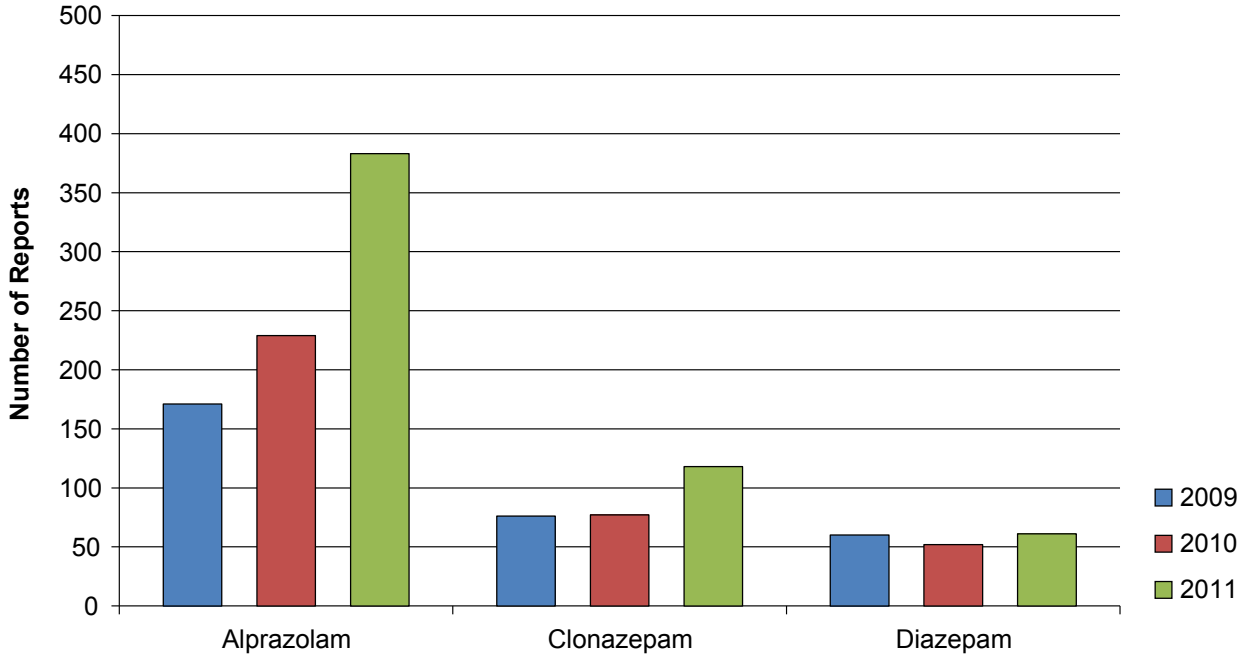
[1]Acquisitions/seizures of less than 10 grams. Partial data for 2011.
SOURCE: STRIDE, analysis by the University of Arizona Department of Family and Community Medicine

Exhibit 8. Number of Oxycodone, Hydrocodone, and Buprenorphine Reports Among Drug Items Analyzed in NFLIS Laboratories in Maricopa County (Phoenix Area): 2009–2011



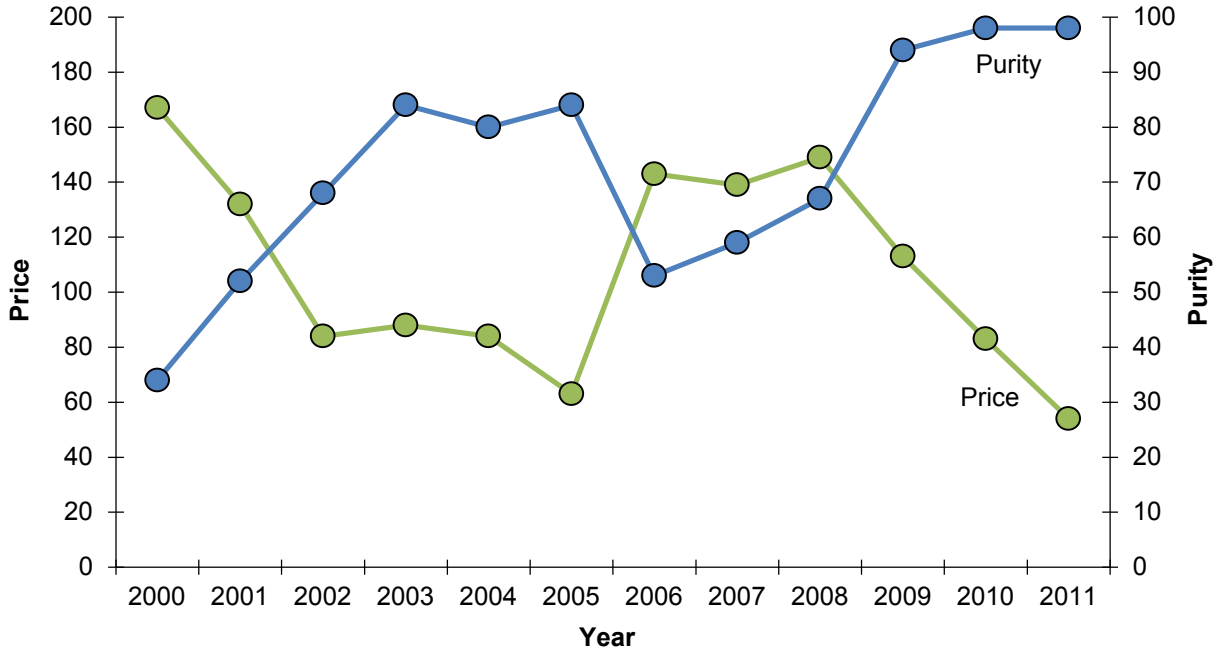
SOURCE: NFLIS, DEA

Exhibit 9. Number of Alprazolam, Clonazepam, and Diazepam Reports Among Drug Items Analyzed in NFLIS Laboratories in Maricopa County (Phoenix Area): 2009–2011



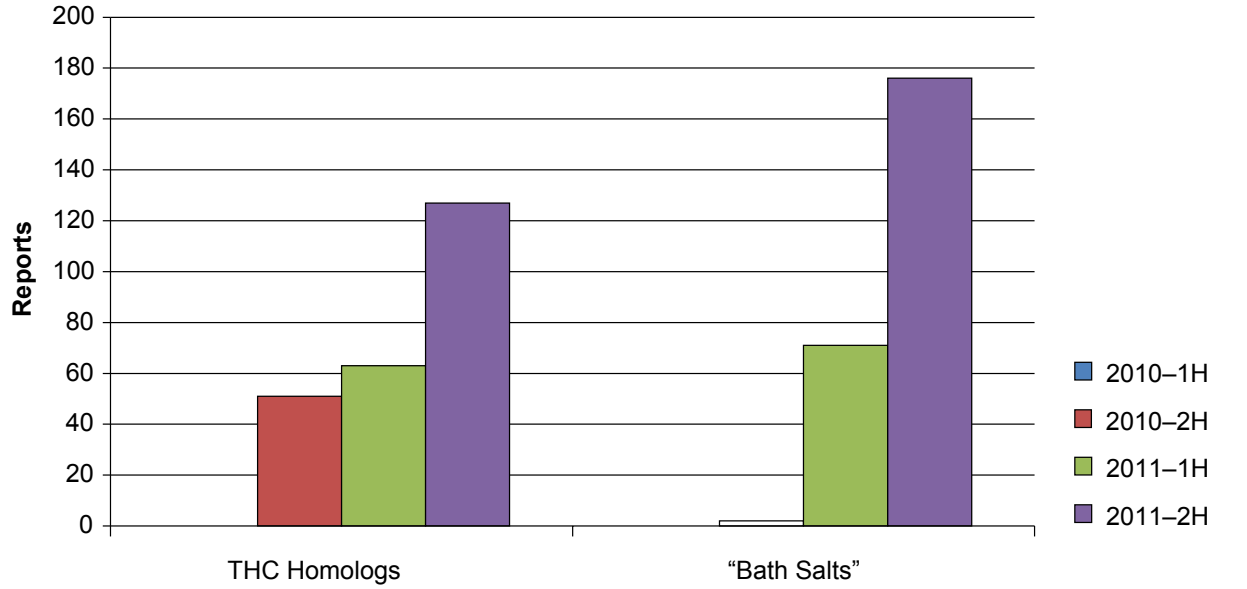
SOURCE: NFLIS, DEA

Exhibit 10. Median Methamphetamine Purity and Price in States Bordering Mexico: 2000–2011[1]



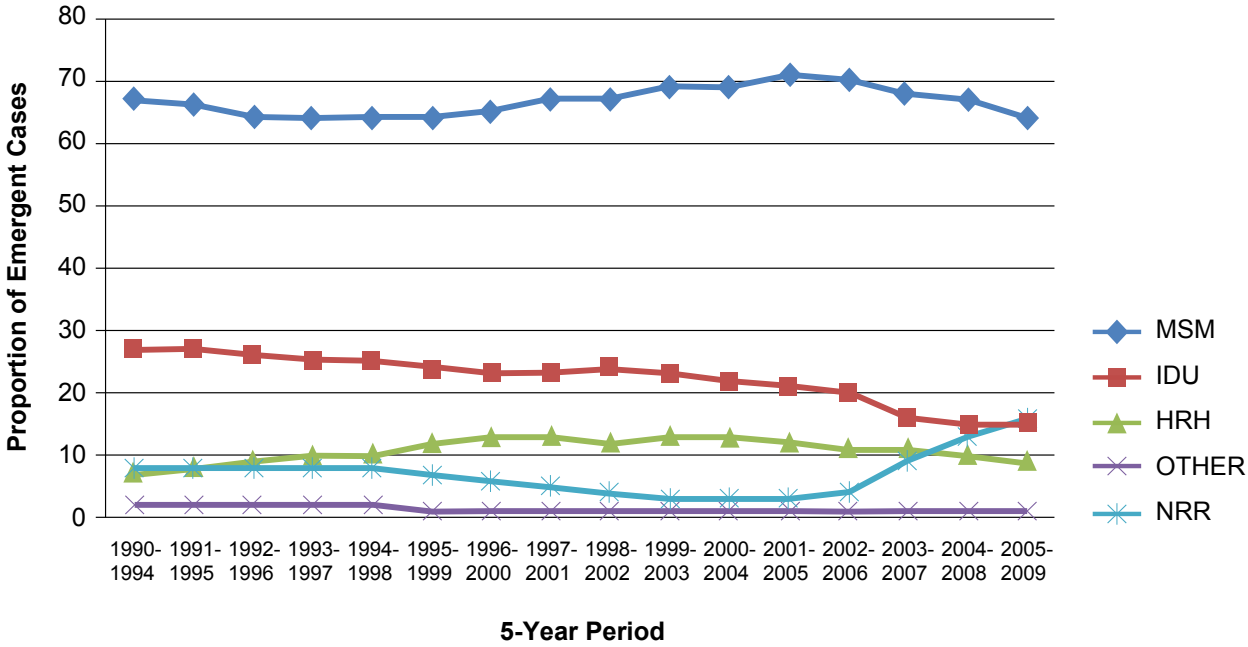
[1]Acquisitions/seizures of less than 10 grams. Partial data for 2011.
SOURCE: STRIDE, analysis by the University of Arizona Department of Family and Community Medicine

Exhibit 11. Number of Poison Control Center Calls for THC Homologs (Cannabimimetics) and "Bath Salts" (Substituted Cathinones) in Maricopa County: First Half (1H) 2010–Second Half (2H) 2011, by Half-Years



SOURCE: NFLIS, DEA

Exhibit 12. Estimated 5-Year Emergent HIV/AIDS Rates per 100,000 per Year, by Reported Risk, in Arizona: 1990–2009



Note: MSM=men who have sex with men; IDU=injection drug user; HRH=high-risk heterosexual; NRR=no reported risk.
SOURCE: Arizona Department of Health Services

Patterns and Trends in Drug Abuse in St. Louis, Missouri: 2011

Heidi Israel, Ph.D., A.P.N., F.N.P., L.C.S.W.[1]

ABSTRACT

Heroin availability and its widespread presence in the St. Louis rural and suburban areas continued to be a concern in 2011. Two types of heroin were available in the St. Louis Metropolitan Statistical Area—Mexican black tar and Mexican off-white powder. The proportion of St. Louis area primary treatment admissions for heroin exceeded alcohol admissions as the primary drug of abuse. The number of deaths involving heroin remained high and were identified in rural medical examiner (ME) data as well as in metropolitan area data. Access to heroin has been consistent and reported from all sources, from school surveys and emergency department visits to law enforcement data. Methamphetamine indicators remained low but stable in St. Louis; however, deaths increased in 2011, and the number of clandestine laboratories remained high. Social networks using "cooks" have devised ways to access precursors and produce small amounts of the drug locally. Methamphetamine from Mexico and the Southwest supplied most of the methamphetamine in the city and county of St. Louis and the surrounding five Missouri counties. Crack cocaine, formerly the major stimulant problem in the area, continued to decrease in all indicators for 2011, but it was possibly more accessible than recent years. Marijuana indicators remained stable in 2011. Reports of club drug abuse continued to be sparse, primarily through anecdotal reports of MDMA (3,4-methylenedioxymethamphetamine) use. "Bath salts" (substituted cathinones) have been noted (although rarely) in ME and poison control reports; the use of "bath salts" (substituted cathinones) and deaths involving them decreased with new control legislation. In the St. Louis area, less than 5 percent of human immunodeficiency virus (HIV) cases had a primary risk factor of injection drug use, with most new cases identified among men who have sex with men (79.1 percent) and heterosexual contact by women of color (17.2 percent).

INTRODUCTION

Area Description

The St. Louis Metropolitan Statistical Area (MSA) includes approximately 2.0 million people. Most of the population lives in the city of St. Louis and St. Louis County; others live in the surrounding rural Missouri counties of Franklin, Jefferson, Lincoln, St. Charles, and Warren. Redefinition of the MSA has resulted in an area that includes a total of eight Missouri counties and eight Illinois counties, reflecting the population sprawl since the last U.S. Census. St. Louis City's population continued to decrease to less than 350,000, many of whom are indigent and minorities. However, revitalization, with an increase in young professionals, has led to conflicts with marginalized populations in the city. Most violent crime statistics for the city decreased in 2011. With severe budget cutbacks,

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it is impossible to sort out the reported decrease in crime and the lack of manpower to followup on all cases. Outlying counties have experienced an increase in crimes; these may be related to the depressed economic recession and increased unemployment. St. Louis County, which surrounds St. Louis City, has more than 1 million residents and is a mix of established affluent neighborhoods and middle- and lower-class housing areas on the north and south sides. The most rapidly expanding population areas are in St. Charles and Jefferson Counties in Missouri and St. Clair and Madison Counties in southern Illinois, which have a mixture of small towns and farming areas. The population in these rural counties totals more than 800,000. Living conditions and cultural differences between the urban and rural areas have resulted in contrasting drug use patterns.

Much of the information included in this report is specific to St. Louis City and County, with caveats that apply to the total MSA. Anecdotal information and some medical examiner (ME) data and treatment data are provided for rural areas surrounding St. Louis.

Policy Issues

Even with legislation for precursor drugs, such as pseudoephedrine, methamphetamine use and local production continued for several reasons. The policy cannot address the vast majority of methamphetamine imported from Mexico, and the social networks that produce smaller amounts of methamphetamine have managed to work around the precursor laws. Attention is now focused on heroin, prescription opiates, and marijuana.

Missouri has been in a budget crisis for years, resulting in cuts in services, particularly in health services, and those for drug treatment and mental health. Limited treatment availability continues for drug abusers and may underestimate the scope of the substance abuse problem when used as an indicator. Medicaid offers treatment services to women and children on a limited outpatient basis. The future funding of mental health and substance abuse treatment is the subject of potential cutbacks as the State attempts to balance its budget.

Data Sources

The data sources used in this report are listed below:

- **Drug treatment data** were derived from the Treatment Episode Data Set database for calendar year (CY) 2011. Private treatment programs in St. Louis County provided anecdotal information.
- **Drug price and purity information** was provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), through 2011, and the National Drug Intelligence Center (NDIC).
- **Drug-related mortality data** were provided by the St. Louis City and County ME Office for CY 2011.
- **Intelligence data** were provided by the Missouri State Highway Patrol; Aubrey Grant, Program Specialist/Policy Bureau, Office of the Illinois Attorney General; and the DEA.

- **Data on drug reports among drug items seized and analyzed in forensic laboratories** were provided by the DEA, National Forensic Laboratory Information System (NFLIS) for 2011. NFLIS methodology allows for the accounting of up to three drug reports per item submitted for analysis. The data are a combined count including primary, secondary, and tertiary reports for each drug item. Data for 2011 are provisional and are subject to change.

- **Client ethnographic information** was obtained from user/key informant interviews.

- **Human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDs), and sexually transmitted disease (STD) data** were derived from the St. Louis Metropolitan Health Department and the Missouri Department of Health and Senior Services for 2011.

- **Methamphetamine clandestine incident information** for 2011 came from the Missouri State Highway Patrol.

- **Anecdotal reports** were provided by the DEA, local agencies that provide crisis interventions services, and the St. Louis County Toxicology Laboratory and Poison Control project.

DRUG ABUSE PATTERNS AND TRENDS

The poor city economy continued to foster drug abuse and distribution. Regionally, some of the indicators for the major substances of abuse changed substantially in 2011. Cocaine availability, proportions of treatment admissions, and numbers of deaths decreased, while heroin availability, treatment admissions, and deaths increased substantially. Anecdotal information from the DEA and local agencies indicated that heroin use, purity, and availability may have increased regionally, including rural and suburban areas surrounding St. Louis. Heroin indicators surpassed cocaine and marijuana indicators in treatment admissions data. Death data for St. Louis City and County showed steady increases in heroin and other opiates over the past few years. Two types of heroin continued to be available in the area; the heroin remained pure and less expensive than that which was available in previous years. St. Louis is a destination market and is subject to all the changes that occur in the supply chain.

Fentanyl, methadone, oxycodone, and hydrocodone continued to be reported in ME and treatment admissions data. Prescription narcotic analgesics were reported to be available in the more rural areas of the MSA.

Methamphetamine indicators were mixed in 2011, but methamphetamine remained a drug for which resources were dedicated. Methamphetamine remained stable as a drug of abuse in cities other than St. Louis and in the rural areas of Missouri. The influence of the distribution networks and combining of distribution networks for cocaine and heroin has led to increased availability throughout the region. Social networks with methamphetamine “cooks” were responsible for increases in clandestine laboratories in the region. Clandestine laboratories reached their highest number in 5 years in 2011. Deaths overall were higher than in previous years.

Marijuana continued to be a very popular drug of abuse among younger adults. Gangs continued to be involved in the drug trade and related violence, with Latino, African-American, and Asian youth and young adults involved in these groups. Interdiction programs are active in the city and along major interstate highways.

The use of "bath salts" (substituted cathinones), which has been widely publicized, has decreased dramatically due to an aggressive legislative and enforcement campaign. Prescription narcotics, which have contributed to younger users' introduction into the heroin culture, and diversion of drugs (such as Suboxone®), have changed the past picture of the urban and suburban drug user.

Drug education and prevention activities have continued at the community level, particularly about heroin and its effects. The National Council on Alcoholism and Drug Abuse (NCADA) and other local education programs target prevention of drug use in the area. Faith-based initiatives are also involved in prevention. These groups are particularly active in the surrounding counties of St. Louis.

Alcohol and other categories remained more stable. While not reported separately, alcohol abuse and underage use of alcohol continued to be community concerns. Many traffic accidents and personal violence incidents have included alcohol use. In St. Louis, in 2011, 31.1 percent of treatment admissions were for alcohol alone.

Crack/Cocaine

The ME data report for 2011 for the St. Louis area showed that deaths in which cocaine was involved were decreasing, with a decline in the number of such deaths from 167 in 2007 to 91 in 2011 (exhibit 1). Cocaine was the fourth most common primary drug of abuse among all treatment admissions in 2011, following heroin, alcohol, and marijuana. This represents a change for the region over the past 6 years, as the numbers of primary cocaine admissions have decreased, while admission numbers for drugs such as heroin have increased. Cocaine represented 10.8 percent of admissions, compared with 19.1 percent for marijuana and 31.4 percent for heroin admissions (exhibit 1). In 2011, males constituted 62.0 percent, and females constituted 38.0 percent of cocaine admissions. Of these cocaine treatment clients, 83.2 percent were older than 35. Marijuana, heroin, and alcohol were the most frequently cited secondary and tertiary drugs of abuse in primary cocaine admissions in 2011.

While the DEA's emphasis in the St. Louis area has shifted from cocaine to methamphetamine and heroin, reports from law enforcement sources, the DEA, and street informants indicated increasing quality and availability for cocaine, with continuing higher prices. As 2011 progressed, this trend appeared to be continuing, as cocaine was re-emerging in the urban areas. The price per rock was reported to be climbing. Anecdotal information indicated that all cocaine in St. Louis is initially in powder form and is converted to crack for distribution. In the past, cocaine was readily available on the street corner in rocks or grams, but this picture was changing. No new information was available on cocaine pricing in Kansas City and smaller cities outside St. Louis.

NFLIS data indicated that 2,350 (5 percent) of drug reports in drug items seized and identified in NFLS laboratories 2011 for the St. Louis MSA were identified as containing cocaine. This placed cocaine as the third most frequently identified substance in the NFLIS system during 2011, a lower ranking than in previous reporting periods.

Most primary cocaine treatment clients (90.1 percent) reported smoking crack cocaine in 2011. A decrease in the use of combined cocaine and heroin ("speedball") by injection drug users (IDUs) has been noted anecdotally, due to low cocaine availability, but that has been replaced with many other combinations such as methamphetamine or heroin. Polydrug use was also evident in the treatment data. The reported use of marijuana, heroin, and alcohol in addition to cocaine suggested this trend will likely continue.

Heroin

Heroin increased in the St. Louis area in all indicators in 2011 (exhibit 1). The ME data report for 2011 showed direct heroin-induced deaths compared with heroin-related deaths, covering St. Louis City and St. Louis County and rural counties of Franklin, Jefferson, and St. Charles. The ME identified 310 heroin-related deaths. Of the 134 such deaths in the city, 20 percent of decedents were younger than 30; 70 percent were Caucasian. There were 91 heroin-related deaths in St Louis County. Of the total heroin deaths, 85 were reported from Jefferson, Franklin, and St. Charles Counties. In 2009, heroin was identified in 180 deaths in St. Louis City and County. In 2008, heroin was present in 137 deaths, while in 2007 and 2006, heroin was present in 65 and 47 deaths, respectively, in St. Louis. Even with the decreased availability of cocaine, a small percentage of these deaths represented use of heroin and cocaine together, many times also mixed with alcohol. A promising sign is that in preliminary 2012 data, heroin-related deaths in St Louis County and City have started to decrease, but this is not true for the rural areas.

Heroin availability and purity began to climb in late 2008. Prior to that increase in availability and purity, heroin was found in small pockets of IDUs residing in small college towns and in small rural towns along major highways in the Missouri and Illinois St. Louis MSA. With this increase in deaths and apparently spreading use, many communities have become alarmed, as the social networks for rural access are not well understood. Grassroots public awareness efforts, such as friends and families organizing marches and formal antiheroin campaigns, have been started by drug abuse prevention organizations.

Heroin treatment admissions in 2011 represented 31.4 percent of all admissions; this proportion exceeded alcohol. A trending upward began in 2006, when heroin admissions increased by 15.5 percent from 2006 to 2007, and by another 49.0 percent in 2008. In 2009, treatment admissions continued to climb among clients younger than 35. In 2011, 68.7 percent of heroin treatment admissions were younger than 35 (although this was slightly lower than the previous year), and 26.2 percent were younger than 25 (exhibit 1). Admissions to some available treatment depended on ability to pay. Some heroin abusers in need of treatment utilized private pay methadone programs. Rapid detoxification, using naltrexone or buprenorphine, is a treatment option at private centers, but it is expensive. Some younger users were reporting initial addiction to prescription pain pills prior to starting to use heroin, not realizing the consequences of heroin involvement. Of the methods of administration, 63.1 percent of heroin treatment clients reported injection use (exhibit 1). The National Council on Alcohol and Drug Abuse (NCADA) reported a change in calls to their hotline indicating an increase in injection beginning in 2009, and the DEA reported the first instance of “open air” markets. This trending back to injection may signal lower available purity, but widespread experimentation in the use of the drug in social circles that previously would not use heroin has been reported throughout the region. In 2011, males accounted for 59.9 percent, while females represented 40.1 percent of heroin treatment admissions. Admissions for African-Americans were less common than those for White heroin abusers. Cocaine and marijuana were the most frequently cited secondary and tertiary drugs of abuse in heroin clients. Most heroin clients entering treatment referred themselves or were referred by the courts.

A steady supply of Mexican heroin remained available; both the DEA and DMP made heroin buys in the region. Mexican black tar heroin purity was up from earlier reporting periods to 40 percent pure in 2009. Purities of 20–40 percent pure have been reported in Mexican brown powder or a slightly

bleached version of this powder. While purities reported by the DMP in 2010 were lower than some other cities, the introduction of whitish powder and is linked with higher purity in the last 2 years. The consistently higher purity in St. Louis has allowed for expansion into a larger market with inexperienced users. Most heroin was purchased in a capsule (one-tenth-gram packages of heroin) for $10–$20 or as one-half gram baggies that sold for $100 each (exhibit 2). Quetiapine (Seroquel®) has been identified as a cutting agent in many samples as well as the standard cutting agents typically used.

The city of St. Louis is an end-user market and is dependent on transportation of heroin from points of entry into the Midwest. The wholesale price remained at $100−$400 per gram, depending on heroin type. On street corners, heroin sold for $150 per gram, according to anecdotal reports. In St. Louis and other smaller urban areas, small distribution networks sold heroin. Kansas City's heroin supply differed from that of St. Louis, probably due to suppliers. Mexican black tar heroin was primarily available there. The lighter color, more potent heroin did not to appear to be available in the Kansas City metropolitan area. Of the reports in drug items seized and identified by NFLIS laboratories in 2011, 13.9 percent were identified as containing heroin.

Other Opiates/Narcotics

Other opiates represented 9.9 percent of all treatment admissions in 2011. These admissions for abuse of other opiates seem to represent a decrease in treatment admissions, but this may also be the result of treatment availability and fewer treatment slots. Prescription opiates are believed to be linked to the introduction of younger users to the effects of opiates, assisting in the fueling of heroin use by a wide range of users. No pharmacy data base exists in Missouri at present to monitor these prescriptions.

Methadone remained available, due to prescription abuse as well as patient diversion. The two most frequently identified opiates, following heroin, among reports detected in drug items seized and analyzed by NFLIS laboratories in the St. Louis MSA, were hydrocodone and oxycodone. NFLIS data for 2011 indicated that the proportion of hydrocodone reports from drug items seized and identified by forensic laboratories ranked seventh among all reports (2.1 percent), while oxycodone reports ranked ninth and represented 0.6 percent of the total reports identified among drug items.

OxyContin® (a long-lasting, time-release version of oxycodone) abuse remained a concern for treatment providers and law enforcement officials and was seen in emergency departments by patients requesting refills. Prescription practices were closely monitored for abuse, and isolated deaths have been reported, but no consistent reports were available on the magnitude of this potential problem. Abuse of oxycodone remained a concern in medical settings, where the drug is preferentially sought. The use of hydromorphone remained common among a small population of White chronic addicts, based on anecdotal information (exhibit 2).

Fentanyl continued to appear in ME data, with 20 deaths in St. Louis City and County and the three targeted rural counties (St. Charles, Jefferson, and Franklin) in 2011. Suboxone® was reported to be available and was being used and sold outside of addiction management programs. Methadone overdoses were reported in 2011 in 19 cases. The use of illicit methadone versus prescription methadone has been difficult to quantify.

Depressants

The remaining few private treatment programs in the State often provided treatment for benzodiazepine admissions, antidepressant clients, and primary alcohol abusers. Social setting detoxification has become the treatment of choice for individuals who abuse these substances. Since many of the private treatment admissions were polysubstance abusers, particular drug problems were not clearly identified.

Stimulants/Methamphetamine

Methamphetamine ("crystal" or "speed"), along with alcohol, remained a primary drug of abuse in both the outlying rural areas and statewide (most of Missouri, outside of St. Louis and Kansas City, is rural). Methamphetamine continued to be identified as a problem in rural communities.

Methamphetamine appeared regularly in treatment data In rural areas, but methamphetamine has been identified as a problem in all parts of the State. An increase in availability and purity of Mexican methamphetamine, and a growth in Hispanic groups in the St. Louis metropolitan area, may have allowed for the crossover with heroin. Primary treatment admissions for methamphetamine in 2011 in St. Louis represented 2.5 percent of total admissions (*n*=320) (exhibit 1). This number of methamphetamine treatment admissions in 2011 represented the same percentage as in 2009 (2.5 percent) reflecting the low level stability in its use. Males entering treatment for methamphetamine (at 53.4 percent) slightly outnumbered females (46.6 percent) (exhibit 1). Marijuana and alcohol and some heroin were the most frequently cited secondary and tertiary drugs of abuse among these clients. Clients entering treatment were typically self-referred. The number of reported methamphetamine deaths remained low but the 21 deaths reported in the region by the ME represented an increase. Some African-American use of methamphetamine was reflected in these reported deaths.

Statewide, 2,096 clandestine laboratories were identified in Missouri in 2011, with many of these laboratories located in the rural counties surrounding St. Louis. Missouri continued to rank first in the country for clandestine laboratories. Those operating this large number of clandestine laboratories have developed ways to work around the barriers to obtaining precursor drugs needed for production since Senate Bill 10, the pseudoephedrine control law, came into effect in July 2005.

Hispanic traffickers were the predominant methamphetamine distributors in St. Louis. Shipments from "super laboratories" in the Southwest were trucked in on the interstate highway system. This network contrasts with the old local "mom and pop" laboratories that fueled much of the methamphetamine debate in the State over the past 10 years. The purity of the methamphetamine obtained through this source has improved in recent years. Crystallized methamphetamine was available in Kansas City and outlying areas of the State, with some availability in St. Louis.

Mexican ice sold for $100 per gram in St. Louis in 2011 and for as little as $80–$100 per gram in the Kansas City area (exhibit 2). Methamphetamine reports among drug items seized and analyzed in NFLIS laboratories represented 5.3 percent of the total reports in in 2011; methamphetamine was the fifth most frequently identified substance in the St. Louis MSA. Pseudoephedrine reports represented 0.6 percent of total reports among seized drug items analyzed during this period. Because methamphetamine is so inexpensive and appeals to a wide audience, it is likely that its use will continue.

Marijuana

Marijuana treatment admissions reflected the increased utilization of the treatment system by the criminal justice system. Almost two-thirds of clients admitted to treatment were referred by the courts. Admissions in 2011 (*n*=2,448) accounted for 19.1 percent of all admissions in the St. Louis region; this may be related to heroin prevalence and treatment slot availability (exhibit 1). Marijuana, viewed by young adults as acceptable to use, was often combined with alcohol. Some prevention organizations reported resurgence in marijuana popularity. The 25-and-younger age group accounted for 57.9 percent of primary marijuana treatment admissions in 2011. A large increase in the 12–17 age group entering treatment was seen in 2011. Increased THC (tetrahydrocannabinol) content of marijuana should not be ignored as a component of voluntary admissions.

Marijuana was available from Mexico or domestic indoor growing operations; marijuana from Mexico was classed as lower grade and less expensive ($199 per ounce). Indoor production makes it possible to produce marijuana throughout the year; marijuana grown indoors was a higher grade and more expensive ($400 per ounce). According to a local street newspaper, low-quality marijuana sold for around $100 per ounce in Missouri, while better quality marijuana cost upwards of $450 for the same amount. The going rate for an "eighth" (about 3.5 grams) was $60. Marijuana prices in Illinois were similar (exhibit 2). The Highway Patrol Pipeline Program monitors the transportation of all types of drugs on interstate highways. Much of the marijuana grown in Missouri is shipped out of the State. Approximately 39.6 percent of all reports in drug items seized and identified in the St. Louis MSA in 2011 were identified as marijuana/cannabis. Marijuana was the most frequently identified substance among reports detected in drug items seized and analyzed by the NFLIS system in the St. Louis area. Marijuana was also the most frequently identified substance statewide, and there were consistently high levels of detection in the screening program in this reporting period.

Hallucinogens

PCP (phencyclidine) has been available in limited quantities in the inner city and has generally been used as a dip on marijuana joints. While PCP was not seen in quantity, it remained in most indicator data and police exhibits and as a secondary drug in ME data. Most of the users of this drug in the inner city were African-American; it remained an indigenous drug of choice.

MDMA

Indicators for MDMA (3,4-methylenedioxymethamphetamine) and other "club drugs" indicated levels were low. The number of reports identified as MDMA among drug items seized and analyzed by NFLIS laboratories may support anecdotal reports (through special epidemiology projects on general substance use) of use of this substance in the St. Louis area.

"Bath Salts" (Substituted Cathinones)

MDPV (3,4-methylenedioxypyrovalerone), a substituted cathinone marketed as "bath salts," has been linked to excited delirium/cardiac arrest in deaths reported to the St. Louis ME and in poison control data. Other substituted cathinone products, such as mephedrone, have not been reported. "Bath salts" (substituted cathinone) sales have been legislated to stop sales in a number of communities, and good response to aggressive enforcement has closed "head shops" attempting to sell and repackage these substances.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

HIV/AIDS

New seropositive HIV and AIDS cases among IDUs remained low in the St. Louis HIV region, which includes St. Louis City and County and Franklin, Jefferson, St. Charles, Lincoln, and Warren Counties (exhibit 3). In 2011, as in preceding years, the predominant number of new HIV cases occurred among men who have sex with men (MSM) (79.4 percent), followed by cases resulting from heterosexual contact (17.2 percent). The largest increases were found among young African-American females, who were infected through heterosexual or bisexual contact, and young homosexual African-American males. Of new HIV cases in the St. Louis region, African-American females and African-American males accounted for more than one-half of new cases. Increased specialized minority prevention and testing efforts have been initiated.

Of the total cases of persons living with HIV/AIDS (*n*=5,308) through 2011, the same primary exposure categories are reflected: MSM, representing approximately 79 percent, and heterosexual contact, accounting for approximately 17 percent. Injection drug use was noted in 3.7 percent of HIV and 2.9 percent AIDS cases (exhibit 3).

In the Centers for Disease Control and Prevention (CDC)'s Behavioral Risk Factor Surveillance System, 33.4 percent of adults age 18–64 had ever been tested for HIV. Significantly more African-Americans (57.2 percent) than Whites (29.9 percent) had been tested in the State of Missouri.

STDs and Hepatitis C

Increased efforts in more tertiary prevention and active education campaigns in the highest risk populations have been used in an attempt to change STD rates. This effort has been successful with syphilis in the past year. In addition, there is a law that allows providers to treat partners without an exam in person. Rates of gonorrhea have remained steady, as well as chlamydia rates. St. Louis had more than 70 percent of the State's 13,237 chlamydia cases (*n*=10,190) and more than 85 percent of the State's 4,000 gonorrhea cases (*n*=3,753) during 2011. The leveling off and decrease in some STDs is hypothesized to be due to better antibiotics, single-dose treatments, and better screening in the community. Syphilis/gonorrhea rates were high in neighborhoods known to have high levels of drug abuse and in the MSM cohorts, underscoring the concept of assortative mixing in cohorts. In the St. Louis region, 190 cases of hepatitis B and 1,805 cases of hepatitis C were reported in 2011. Exhibit 4 includes historic HIV and hepatitis C data for the immediate St. Louis City area and hepatitis C data for the St. Louis MSA in 2011.

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Exhibit 1. Indicators From Mortality and Treatment Admissions Data for Cocaine, Heroin, Marijuana, and Methamphetamine, St. Louis: 1996–2012 for Mortality Data and 2006–2011 for Treatment Admissions Data

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine
Number of Deaths[1] by Year				
1996	93	51	NA[2]	9
1997	43	67	NA	11
1998	47	56	NA	9
1999	51	44	NA	4
2000	66	47	NA	9
2001	75	20	NA	3
2002	76	50	NA	—
2003	78	61	NA	—
2004	38	64	NA	—
2005	106	31	NA	—
2006[3]	42	47	NA	—
2007[3]	167	65	NA	4
2008[3]	95	137	NA	7
2009	70	180	NA	1
2011	44	129	NA	3
2012	91	310	NA	21
Treatment Admissions Data				
Percent of all Admissions (2011)	10.8	31.4	19.1	2.5
Percent of all Admissions (2010)	10.6	26.5	21.5	2.8
Percent of all Admissions (2009)	12.0	22.5	21.3	2.5
Percent of All Admissions (2008)	17.8	18.8	23.7	2.7
Percent of All Admissions (2007)	22.8	15.5	20.3	2.5
Percent of All Admissions (2006)	25.6	13.2	22.7	3.0
Gender (%) (2011)				
Male	60.8	59.9	72.9	53.4
Female	39.2	4.1	27.1	46.6
Age (%) (2011)				
12–17	<0.1	<1.0	30.3	<1
18–25	3.3	25.3	27.6	18.1
26–34	15.0	42.5	22.6	37.5
35 and Older	81.4	31.3	19.5	43.4
Route of Administration (%) (2011)				
Smoking	88.9	<1.0	97.8	44.1
Intranasal	7.9	35.3	0	8.7
Injecting	1.8	63.1	0.0	42.8
Oral/Other	1.4	1.0	2.2	4.4

[1]Excludes rural deaths.
[2]NA=Not applicable.
[3]St. Louis City/County Medical Examiner's Office Data manual reports.
SOURCES: St. Louis City/County Medical Examiner's Office; TEDS database

Exhibit 2. Other Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine, St. Louis: 2002–2011

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine And Other Drugs
Multisubstance Combinations	Older users combine with heroin, alcohol	Available, Mix cocaine, amphetamines, opiates, alcohol	Alcohol	Marijuana commonly used in combination, alcohol use
Market Data (2008–2009)	Powder $100–$400/g, 70% pure; crack $20–$40/rock	$100/1/2 g baggie; $20 per gel capsule; depending if MBP[1], SA[1]; $200/g, 20–40 percent pure, street reports higher purity available	Low grade: $100/oz; High grade (indoor grow, includes various types): $1,400/oz	Methamphetamine $100/g, Mexican (80 percent pure) and local (80 percent pure); hydromorphone $80/4-mg pill; OxyContin® $20–$40, Tramadol®, Percocet®, Vicodin®, Fentanyl
Qualitative Data[2]	Limited availability, urban choice	Younger users,26% younger than 25, increased availability and purity	Readily available, younger users in treatment	Rural/suburban users of amphetamine
Other Data of Note	NR[3]	MBP, Mex white—increased IV, young users able to smoke/snort	NR	Methamphetamine laboratory seizures increase 2011: mom/pop laboratories; producers in super laboratories—controlled by Hispanic groups

[1]MBP=Mexican brown and white powder; SA=South American.
[2]Obtained from user/key informant interviews.
[3]NR=Not reported.
Note: g=gram; oz=ounce; mg=milligram.
SOURCES: DEA; NDIC; Client Ethnographic Information

Exhibit 3. Number and Percentage of Persons with HIV (New HIV/AIDS and Existing Cases), by Exposure Category, St. Louis Metropolitan Area: Through 2011

Exposure Category	New Cases HIV 2011 Number (Percentage)	Living with HIV Through 2011 Number (Percentage)	New Cases AIDS 2011 Number (Percentage)	Living with AIDS Through 2011 Number (Percentage)
MSM	129 (79.1%)	1,826 (72.3%)	50 (80%)	1,936 (70.6%)
IDU/MSM	9 (0%)	68 (2.7%)	0	110 (4.0%)
IDU	6 (3.7%)	88 (3.5%)	2 (2.9%)	156 (5.7%)
Heterosexual	28 (17.2%)	536 (21.2%)	12 (17.1%)	521 (19.0%)
Hemophilia/ Coagulation Disorder	0	6 (0.2%)	0	19 (0.7 %)
Blood Transfusion	0	1 (0%)	1 (0%)	0
Pediatric Population	1	25	0	14
Total	**164**	**2,551**	**70**	**2,757**

Note: MSM=men who have sex with men; IDU=injection drug user
SOURCES: St. Louis City Health Department; Missouri Department of Health

Exhibit 4. Number of New HIV and Hepatitis C Cases, St. Louis: 2002−2011

New Cases	Number of HIV Cases	Number of Hepatitis C Cases
2002	178	227
2003	197	488
2004	122	540
2005	171	512
2006	227	305
2007	198	1,217
2008	212	1,415
2009	259	1,252[1]
2010	300	1,489[1]
2011	234	1,805[1]

[1]St. Louis MSA.
SOURCES: St. Louis City Health Department; Missouri Department of Health

Drug Use and Abuse in San Diego County, California: 2011

Karla D. Wagner, Ph.D.[1]

ABSTRACT

Overall, stability was observed when comparing drug indicators in San Diego in 2011 with 2010. Methamphetamine indicators in San Diego County continued to be mixed after several years of decline. Some indicators leveled off, while others suggested increased use and abuse. After declining from 2007 to 2009, cocaine indicators leveled off during 2010 and remained stable in 2011. Marijuana indicators were largely stable, with the exception of an increase among juvenile arrestees. Heroin indicators were generally stable from 2010, but a very gradual upward trend was observed over the longer term. Drug treatment admissions data suggested abuse of narcotic analgesics was also stable. After decreasing from peak levels in 2005, methamphetamine indicators were mixed in 2011. The total number of drug treatment admissions has decreased steadily; the number of primary methamphetamine admissions mirrors this overall trend, decreasing slightly, from 4,058 in 2010 to 3,968 in 2011. The proportion of primary methamphetamine admissions remained stable for a third year, at 29 percent. Among adult male arrestees, 26 percent tested positive for methamphetamine; this was an increase of just 1 percentage point from 2010. Among female arrestees, 38 percent tested positive, which was an increase from 33 percent in 2010. Among juvenile arrestees, 4 percent tested positive for methamphetamine, compared with 8 percent in 2010. The number of overdose deaths involving amphetamine (including methamphetamine) increased slightly, from 115 in 2010 to 119 in 2011, although the rate remained stable at 3.7 per 100,000. Methamphetamine ranked first among reports from drug items seized and analyzed in National Forensic Laboratory Information System (NFLIS) laboratories; 32 percent of reports from the NFLIS laboratories tested positive for methamphetamine in 2011. Methamphetamine's street prices were stable. Cocaine/crack indicators were low overall and have been decreasing since 2007. The number of primary treatment admissions decreased from 2010 (n=660) to 2011 (n=577) and were lower as a percentage of overall admissions (4 versus 5 percent). Prevalence among male adult arrestees was unchanged in 2011 (6 percent), as was prevalence among juvenile arrestees (2 percent), although the proportion of female arrestees testing positive for cocaine was down in 2011 (at 7 percent) compared with 2010 (at 11 percent). Cocaine ranked third among total reports from drug items seized and analyzed in NFLIS laboratories; 11 percent of primary, secondary, and tertiary reports contained cocaine. Street prices remained stable. Marijuana indicators that were mixed in past reports appeared stable in 2011. Primary marijuana treatment admissions were stable as a proportion of total treatment admissions (18.5 percent in 2010 versus 18.4 percent in 2011). Marijuana ranked second in NFLIS data, representing 29 percent of primary, secondary, and tertiary reports. Prevalence among adult arrestees was stable, but prevalence increased among juveniles from 43 percent in 2010 to 51 percent in 2011. Heroin indicators were largely stable from 2010 to 2011, but reflected a longer-term trend of gradual increases.

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Both the number of treatment admissions and proportion of total treatment admissions were relatively stable; however, the proportion of treatment admissions for clients younger than 35 increased to represent 66 percent of all admissions (compared with 48 percent in 2008). The number of overdose deaths increased from 105 in 2010 to 118 in 2011, although the rate remained relatively stable at 3.7 per 100,000 (compared with 3.3 per 100,000 in 2010). Prevalence among adult arrestees was 9 percent for both males and females, compared with 10 percent in 2010. Among juvenile arrestees, 2 percent tested positive in 2011, compared with a spike of 5 percent in 2010. It should be noted that the urine test upon which this indicator is based cannot discern between heroin and prescription opioids. Heroin ranked fourth among reports from drug items seized and analyzed by NFLIS laboratories, with 7 percent of primary, secondary, and tertiary reports testing positive for heroin. Narcotic analgesics remained low and stable in 2011, at 4 percent of total primary treatment admissions.

INTRODUCTION

Area Description

San Diego County is the southwestern-most county of California and shares 80 miles of border with Mexico. The San Ysidro border crossing, which links San Diego with its sister city of Tijuana, Mexico, is the busiest border crossing in the world, accommodating approximately 40 million legal crossings annually. Both Tijuana and San Diego County are located on major drug trafficking routes that bring illicit drugs from Mexico and South America to the United States. In particular, San Diego is a major transshipment point for both methamphetamine and marijuana. San Diego County's total population was reported at more than 3 million in 2010 (exhibit 1). The county is home to a growing Hispanic (predominantly Mexican) population. Overall, 32 percent of county residents are Hispanic, and 48 percent are non-Hispanic White. Smaller proportions of the population are Asian and Pacific Islander (11 percent), non-Hispanic African-American (5 percent), American Indian (less than 1 percent), and other races/ethnicities (3 percent) (exhibit 1).

Data Sources

The data sources used in this report are listed below:

- **Arrestee data** were provided by the San Diego Association of Governments (SANDAG) Substance Abuse Monitoring (SAM) program, a regional continuation of the Federal Arrestee Drug Abuse Monitoring (ADAM) program that was discontinued in 2003. This report presents preliminary 2011 urinalysis positive data for adult (*N*=772) and juvenile (*N*=124) arrestees.

- **Drug price data** came from the San Diego Law Enforcement Coordination Center's "Street Drug Price List (January 2012)," which reports on street-level drug buys conducted in San Diego County.

- **Forensic laboratory data** came from the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA), for calendar year (CY) 2011. These data were queried on May 8, 2012. A recent change in NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis. The numbers of NFLIS reports now include primary, secondary, and tertiary substances for crime laboratory items analyzed and provide a more complete surveillance than when only the primary substance detected was reported. Because of

this change, it is not appropriate to compare the 2011 NFLIS data with those in previous CEWG Reports. Data for 2011 are provisional and subject to change.

- **Treatment data** were provided by the San Diego Department of Alcohol and Drug Programs (ADP) (tables produced by the California Department of Alcohol and Drug Programs) using the California Outcomes Measurement System (CalOMS). CalOMS is a statewide client-based data collection and outcomes measurement system for alcohol and other drug (AOD) prevention and treatment services. Submission of admission/discharge information for all clients is required of all counties and their subcontracted AOD providers, all direct contract providers receiving public AOD funding, and all private pay licensed narcotic treatment providers. Data for this report include admissions to San Diego County for the period January–December 2011. CalOMS was implemented in early 2006 (replacing the earlier California Alcohol and Drug Data System [CADDS]); data reported for periods prior to July 2006 may not be comparable to more recent periods.

- **Mortality data** were obtained from the Emergency Medical Services Medical Examiner Database, which is maintained by the County of San Diego Health and Human Services Agency.

- **Acquired immunodeficiency syndrome (AIDS) data and human immunodeficiency virus (HIV) data** were taken from the San Diego County Health and Human Services Agency's *2010 HIV/AIDS Epidemiology Report*. Data through December 31, 2009, are included in this report. The 2011 report was not available at the time of this report.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine remained a low level drug in San Diego County, and cocaine indicators from 2007 to 2010 suggested that use and abuse of the drug was decreasing. Data from 2011 suggested that the leveling off that was first observed in 2010 may be continuing. The number of primary cocaine treatment admissions decreased slightly from 2010 (*n*=660) to 2011 (*n*=577), which mirrors an overall trend of declining numbers of treatment admissions (exhibits 2 and 3). Cocaine accounted for 4.2 percent of total admissions in 2011 compared with 4.8 percent in 2010. Slightly more than three-quarters (78.5 percent) of cocaine admissions in 2011 were age 35 or older; slightly more than two-thirds (65.2 percent) were male; and nearly two-thirds (61.7 percent) were Black non-Hispanic. The majority (79.4 percent) reported smoking as their primary route of administration. A majority cited at least one secondary substance of abuse, most commonly alcohol (33.1 percent) or marijuana (20.1 percent), while 31.0 percent reported no secondary substance of abuse (exhibit 3).

Among adult arrestees, 6 percent of males and 7 percent of females tested urinalysis-positive for cocaine in 2011; this represented no change for males but a decrease among females from 11 percent in 2010 (exhibit 4). This is compared with a high of 11 percent among males and 16 percent among females in 2007. Juvenile prevalence remained stable at 2 percent in 2011.

Cocaine ranked third overall among reports from drug items seized and analyzed in NFLIS laboratories, with 11 percent of primary, secondary, and tertiary reports testing positive for cocaine (exhibit 5).

In its *National Drug Threat Assessment 2010,* the National Drug Information Center (NDIC) reported reductions in cocaine indicators across the United States and attributed these reductions to reduced quantities entering the United States since 2007, which resulted in concurrent decreases in purity and increases in price. However, cocaine prices in San Diego County have remained relatively stable since 2008 (exhibit 6).

Heroin

Overall, heroin indicators in 2011 were relatively stable when compared with 2010, but suggested an upward trend since 2006. There were 3,109 primary treatment admissions for heroin, accounting for 22.0 percent of all treatment admissions (exhibits 2 and 3). This compares with 2,969 primary heroin admissions (21.4 percent) in 2010 and 2,763 primary heroin treatment admissions (19.4 percent) in 2009. Clients admitted to treatment in 2011 for heroin were predominantly male (70.1 percent) and were increasingly White non-Hispanic (63.1 percent). Treatment admissions data suggested that individuals admitted to treatment for heroin were increasingly younger. Clients younger than 35 constituted the majority (65.6 percent) of heroin admissions; this proportion represented an increase from 63.2 percent in 2010 and 55.7 percent in 2009. Overall, most primary heroin admissions (69.0 percent) reported injection as their primary route of administration, although this proportion represented a decline when compared with 2010 (72.0 percent) and 2009 (75.0 percent). Thirty-nine percent reported no other drug of abuse. The most common secondary drugs reported were methamphetamine (21.2 percent), marijuana (14.1 percent), alcohol (9.4 percent), and cocaine/crack (6.6 percent) (exhibit 3).

Heroin/opiate urinalysis-positive prevalence among adult arrestees was 9 percent among both males and females in 2011; this was a decrease of 1 percentage point from 2010 (exhibit 4), but it was still higher than the prevalence observed prior to 2010. Among juvenile arrestees, 2 percent tested positive for heroin/opiates in 2011, compared with 5 percent in 2010 and 1 percent in each of the years 2006–2009. It should be noted that the urine test upon which this indicator is based cannot discern between heroin and prescription opioids. Heroin ranked fourth among reports from drug items seized and analyzed in NFLIS laboratories, with 7 percent of primary, secondary, and tertiary reports identified as heroin (exhibit 5).

In 2010, there was a decrease in the number and rate of overdose deaths involving heroin/morphine; however, in 2011, both the number and rate returned to 2009 levels. There were 118 overdose deaths (with a rate of 3.66 per 100,000) in 2011, compared with 105 overdose deaths (with a rate of 3.26 per 100,000) in 2010. In 2009, there were 118 overdose deaths (3.69 per 100,000) (exhibit 7). Overdose deaths are based on preliminary Medical Examiner data, so the number could change as more cases are closed. The street price of Mexican black tar heroin was stable in San Diego County in 2011 (exhibit 6). The price per pound was $8,000–$12,000 in 2011; this price was similar to 2010. The price per one-quarter gram also remained stable at $25–$30.

Oxycodone and Other Prescription Opioids/Synthetics

There were 580 treatment admissions for oxycodone and other opioids/synthetics in 2011, compared with 576 treatment admissions in 2010 (exhibits 2 and 3); these accounted for 4.2 percent of all treatment admissions. In 2011, there were 308 primary admissions for oxycodone (2.0 percent of total admissions) and 272 primary admissions for other opioids/synthetics (2.2 percent of

total admissions), compared with 303 primary treatment admissions (2.2 percent of the total) for oxycodone and 273 admissions (2.0 percent of the total) for other opioids/synthetics in 2010. The proportion of oxycodone admissions has slowly decreased since 2008, while the proportion of other opioid admissions has slowly increased during the same 3-year period (exhibit 8). Admissions for prescription opioids, including OxyContin®, oxycodone, and other opioids, were 54.0 percent male. Nearly 20 percent of admissions for prescription opioids were younger than 26, and 76 percent reported White non-Hispanic race/ethnicity. The majority reported oral administration (83.4 percent), although some admissions reported smoking (4.1 percent), sniffing (7.4 percent), and injection (3.6 percent) as their preferred route of administration. The majority (60 percent) of admissions for prescription opioids reported no secondary drug of abuse.

Of the drug reports identified among items seized and analyzed by NFLIS laboratories for San Diego County in 2011 (exhibit 5), 425 (3 percent of all reports) were identified as hydrocodone. Hydrocodone ranked fifth among drug total drug reports identified in 2011, behind marijuana/cannabis, methamphetamine, cocaine, and heroin. Also identified were 252 oxycodone reports (2 percent of total reports). Morphine, buprenorphine, methadone, codeine, and hydromorphone each represented less than 1 percent of reports in 2011.

Methamphetamine

Methamphetamine indicators were mixed in 2011, following observed declines from 2006 to 2008. Indicators suggested a leveling off or possible increase in 2010. The number of methamphetamine primary treatment admissions indicated a long-term decline from 5,547 in 2006 to 3,968 in 2011 (exhibit 2). However, primary methamphetamine treatment admissions continued to account for the highest proportion of treatment admissions in San Diego in 2011 (29.0 percent); this proportion has been relatively stable since 2009. While notable changes in the demographic characteristics of primary methamphetamine admissions were observed in previous years (2006–2009), the characteristics of primary methamphetamine admissions were relatively stable from 2010 to 2011. A majority of the 2011 methamphetamine treatment admissions were male (55.1 percent), and almost one-half (49.3 percent) were non-Hispanic White, showing an overall racial and ethnic distribution similar to that of the San Diego population. The most common secondary drugs of abuse among primary methamphetamine clients were marijuana (28.2 percent) and alcohol (25.1 percent), with 34.3 percent citing no secondary drug (exhibit 3). The most common route of administration reported by primary methamphetamine admissions was smoking (72.8 percent), followed by injection (17.6 percent). Methamphetamine also appeared to be increasing as a reported secondary drug among individuals with other primary drugs at admission. For example, 21.2 percent of clients admitted for heroin treatment reported methamphetamine as their secondary drug in 2011, compared with 20.6 percent in 2010 and 16.8 percent in 2009.

The prevalence of methamphetamine-positive urine tests among arrestees in San Diego County showed relatively steady declines from 2005 to 2008. In 2009, this downward trend appeared to show signs of reversal. Preliminary data from 2011 suggested a slight increase in prevalence among males, from 25 percent in 2010 to 26 percent in 2011. Among females, the prevalence in 2011 was 38 percent, compared with 33 percent in 2010 and 38 percent in 2009 (exhibit 4). Among juveniles, prevalence was 4 percent in 2011, compared with 8 percent in 2010 and 6 percent in 2009.

In preliminary 2011 NFLIS data, methamphetamine reports ranked first among drug reports from items seized and analyzed in NFLIS laboratories, with 4,938 reports (32 percent of all primary, secondary and tertiary reports) (exhibit 5).

Methamphetamine prices appeared stable for the most part from 2010 to 2011. The price for a gram was stable at $80–$100, while the lower end of the price range for 1 ounce decreased slightly from $1,000 to $800 (exhibit 6).

Overdose deaths involving amphetamines (including methamphetamine) increased since 2008, with 119 amphetamine-involved deaths in 2011 (representing a rate of 3.69 per 100,000) compared with 115 in 2010 (with a rate of 3.57 per 100,000), 88 in 2009 (with a rate of 2.5 per 100,000), and 83 in 2008 (representing a rate of 2.64 per 100,000). This was the highest number of overdose deaths involving amphetamines since the peak in 2005, when 113 deaths (with a rate of 3.7 per 100,000) were reported (exhibit 7).

Marijuana

Marijuana indicators were relatively stable in 2011, compared with somewhat mixed indicators in 2010. The number of primary treatment admissions was relatively unchanged in 2011 (2,520 in 2011, compared with 2,570 in 2010), and the proportion of treatment admissions reporting marijuana as their primary drug was also relatively unchanged (18.4 percent in 2011, compared with 18.5 percent in 2010) (exhibits 2 and 3). Similar to 2010 and 2009, three-quarters of the admissions were male (74.7 percent). A slightly smaller proportion was younger than 18 (50.8 percent in 2011, compared with 54.7 percent in 2010). Hispanics were overrepresented among these admissions (46.9 percent). Alcohol was the leading secondary substance of abuse among primary marijuana users (36.5 percent) in 2011, followed by no secondary substance (36.7 percent), methamphetamine (15.6 percent), and cocaine (3.3 percent).

The proportion of arrestees with urinalysis-positive tests for marijuana (exhibit 4) in 2011 showed a slight increase among adult males and females. In 2011, 40 percent of adult males and 31 percent of adult females tested positive for marijuana, compared with 39 percent of males and 29 percent of females in 2010. Among juveniles, the increase was greater, with 51 percent of juveniles testing positive for marijuana in 2011, compared with 43 percent in 2010.

Of the drug reports from seized items analyzed in NFLIS forensic laboratories in 2011, 29 percent (4,477 reports) were identified as marijuana (exhibit 5). Marijuana/cannabis ranked second among total reports from items analyzed in NFLIS laboratories, after methamphetamine.

Prices for marijuana increased for the ounce quantity, from $80–$120 in 2010 to $300–$400 in 2011, while the price per pound remained unchanged for another year at $400–$600. The increase in the ounce quantity should be interpreted with caution, as the 2010 data were reported as “Mexican” marijuana and the 2011 data were reported as “low-grade” marijuana (exhibit 6).

MDMA (Ecstasy)

There were relatively few primary treatment admissions for MDMA (3,4-methylenedioxymethamphetamine), or ecstasy, in 2011 (*n*=39), down from 54 in 2010 (data not shown). MDMA admissions were 49 percent male; they were mostly Hispanic (46.2 percent) and non-Hispanic White (43.6

percent); and clients were predominantly younger than 18 (64.1 percent). Thirty-nine percent of MDMA admissions reported marijuana as a secondary drug of abuse, while 23.1 percent reported alcohol. There were 263 reports identified as MDMA among drug items seized and analyzed in NFLIS forensic laboratories in 2011, representing 1.7 percent of all reports (exhibit 5).

Alcohol

There were 2,856 primary treatment admissions (20.9 percent) for alcohol in 2010 (exhibit 3). Clients admitted for alcohol were predominantly male (64.1 percent, up from 51.5 percent in 2009), White non-Hispanic (58.6 percent), and age 35 or older (60.1 percent). Forty-three percent of primary alcohol admissions cited no secondary drug of abuse. Marijuana was the secondary drug in 25.0 percent of cases, followed by methamphetamine (17.0 percent, down from 18.6 percent in 2010) and cocaine/crack (6.9 percent, down from 7.7 percent in 2010). Few alcohol clients reported secondary abuse of heroin (3.0 percent, a slight increase from 2.0 percent in 2009) or other opiates (2.7 percent, a proportion slightly higher than 1.9 percent in 2010).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

AIDS

Data on HIV/AIDS in 2011 were not available for this report. There were 14,228 cumulative AIDS cases in San Diego County through December 31, 2009, including 7,006 currently living with AIDS. Thirty-five percent of AIDS cases among females from 1981 to 2009 were attributed to injection drug use, and 21 percent were attributed to sex with an injection drug user (IDU). Focusing on the more recent period, 2005–2009, the proportion of cases among females attributed to injection drug use was lower than in the cumulative time period from 1981 to 2009, with 21 percent attributed directly to injection drug use and 16 percent to sex with an IDU.

There was also evidence of substantial shifts in the demographic makeup of injection-related cases over time. The proportion of AIDS cases attributed to injection drug use among White females declined between 1990–1994 (42 percent) and 2005–2009 (33 percent), while the proportion of cases attributed to injection among Black females decreased from 51 to 16 percent during the same time periods. Similarly, the proportion of cases among Hispanic females attributed to injection drug use decreased from 24 to 16 percent in the more recent 2005–2009 time period. It should be noted that these reductions among Black and Hispanic females were offset by substantial increases in cases attributed to heterosexual transmission, which may include sex with IDUs.

Among males, IDUs and men who have sex with men (MSM) and also inject drugs (MSM/IDU) accounted for 7 and 11 percent of cumulative cases, respectively, from 1985 to 2009. The same proportions (7 and 11 percent) were reported for the more recent 2005–2009 period. Black males represented a disproportionate proportion of AIDS cases in San Diego County, with 17 and 13 percent of AIDS cases among Black males in 1990–1994 and 2005–2009, respectively, attributed to injection drug use. This compared with only 3 and 6 percent in 1990–1994 and 2005–2009, respectively, among Whites, and 10 and 6 percent among Hispanics. The same is true of cases attributed to MSM/IDU. Sixteen and 10 percent of cases among Black males were attributed to MSM/IDU in 1990–1994 and 2005–2009, respectively, compared with 9 and 13 percent among Whites and 10 and 8 percent among Hispanics in those respective time periods.

HIV

There were no new HIV data available at the time of this report. In 2006, the State of California transitioned to names-based reporting of HIV cases, consistent with recommendations from the Centers for Disease Control and Prevention (CDC). Effective April 2006, the State stopped reporting updated statistical information on HIV cases reported before implementation of the names-based system. Accordingly, cumulative HIV case counts now reflect unduplicated HIV case counts reported by name to the California Department of Health Services Office of AIDS beginning April 17, 2006. From April 17, 2006, through December 31, 2009, there were 4,269 cumulative HIV cases in San Diego County, of whom 3,840 (90 percent) were male. Among males, 4 percent of these cases were attributed to injection drug use, and 8 percent to MSM/IDU. Among females, 23 percent of cases were attributed to injection drug use, and 9 percent were attributed to sex with an IDU.

Among male cases, injection drug use accounted for 8.1 percent of cases among Blacks, compared with 3.6 and 3.9 percent of cases among Whites and Hispanics, respectively. Black males also had the highest proportion of cases attributed to MSM/IDU (at 9.7 percent), compared with 8.5 percent among White males and 5.3 percent among Hispanic males. Among females, the largest proportion of cases attributed to injection drug use was among Whites (at 30.7 percent), followed by Blacks (at 24.5 percent) and Hispanics (at 16.7 percent).

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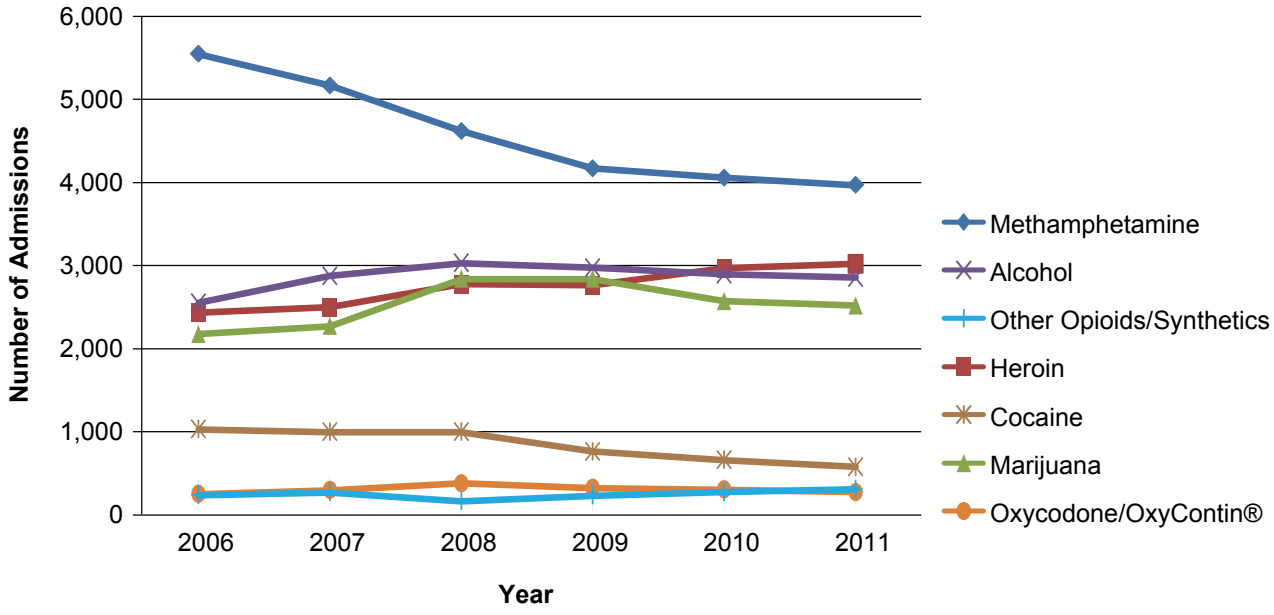
Exhibit 1. San Diego County Demographics, by Percentage: 2010

Race/Ethnicity	2010 (*N*=3,095,313)
White	48%
Black or African-American	5%
Asian/Pacific Islander	11%
American Indian	<1%
Other Race	3%
Hispanic/Latino	32%
Median Household Income (Current $)	$62,771

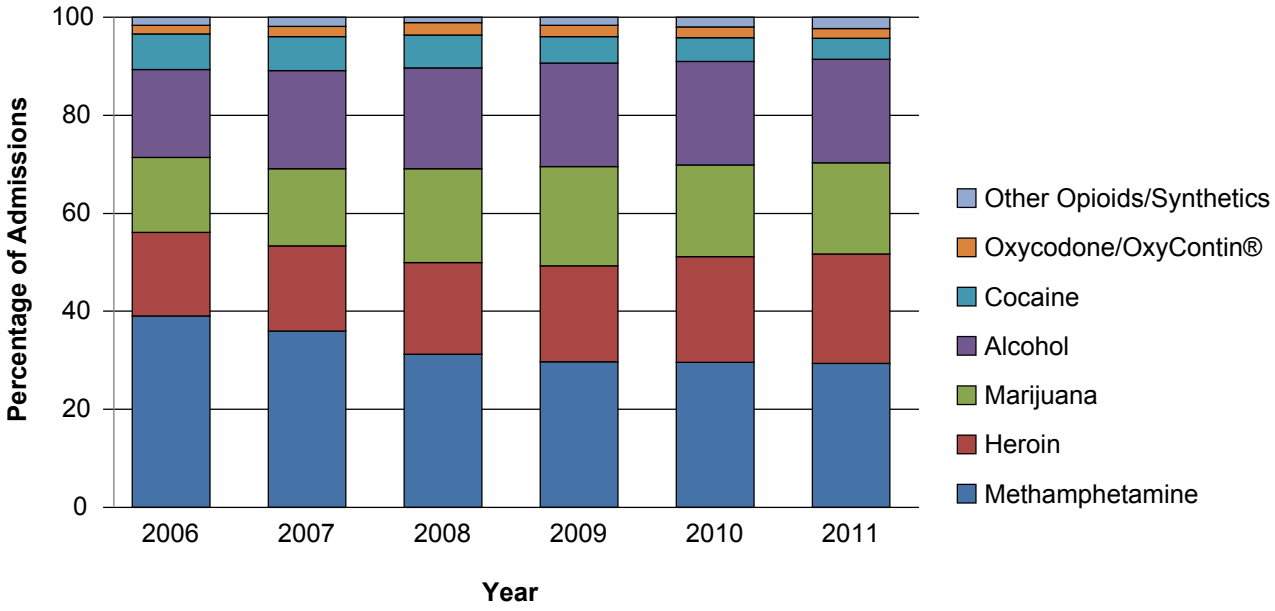
SOURCE: San Diego Association of Governments *http://www.sandag.org/resources/demographics_and_other_data/demographics/fastfacts/regi.htm*

Exhibits 2a & 2b. Number and Percentage of Treatment Admissions, by Primary Drug, in San Diego County: 2006–2011

2a. Number of Treatment Admissions, by Primary Drug, in San Diego County: 2006–2011



2b. Percentage of Treatment Admissions, by Primary Drug, in San Diego County: 2006–2011



SOURCE: California Outcome Measurement System (CalOMS)

Exhibit 3. Characteristics of Clients Admitted to Treatment, by Numbers and Percentage, in San Diego County: 2011

Characteristics	Alcohol	Cocaine/ Crack	Heroin	Other Opiates	Marijuana	Metham-phetamine Only	All Other	Total
Total *N* (%):	**2,856 (20.9)**	**577 (4.2)**	**3,019 (22.0)**	**580 (4.2)**	**2,520 (18.4)**	**3,968 (29.0)**	**137 (1.0)**	**13,696 (100.0)**
Gender								
Male	1,832 (64.1)	376 (65.2)	2,116 (70.1)	313 (54.0)	1,882 (74.7)	2,185 (55.1)	92 (67.2)	8,815 (64.4)
Female	1,024 (35.9)	201 (34.8)	903 (29.9)	267 (46.0)	638 (25.3)	1,783 (44.9)	45 (32.8)	4,881 (35.6)
Unknown	0	0	0	0	0	0	0	0
Age at Admission								
17 and younger	165 (5.8)	*	25 (0.8)	*	1,280 (50.8)	103 (2.6)	17 (12.4)	1,627 (11.9)
18–25	350 (12.3)	*	1,005 (33.3)	*	499 (19.8)	623 (15.7)	33 (24.1)	2,680 (19.6)
26–34	624 (21.8)	68 (11.8)	951 (31.5)	219 (37.8)	403 (16.0)	1,237 (31.2)	36 (26.3)	3,539 (25.8)
35 and older	1,717 (60.1)	453 (78.5)	1,038 (34.4)	246 (42.4)	338 (13.4)	2,005 (50.5)	51 (37.2)	5,850 (42.7)
Unknown	0	0	0	0	0	0	0	0
Race/Ethnicity								
White Non-Hispanic	1,675 (58.6)	106 (18.4)	1,905 (63.1)	441 (76.0)	772 (30.6)	1,956 (49.3)	58 (42.3)	6,930 (50.6)
African American	310 (10.9)	356 (61.7)	71 (2.4)	31 (5.3)	335 (13.3)	241 (6.1)	31 (22.6)	1,377 (10.1)
American Indian	28 (1.0)	*	35 (1.3)	0	17 (0.7)	47 (1.2)	0	133 (1.0)
Asian/PI	46 (1.6)	*	41 (1.4)	*	56 (2.2)	253 (6.4)	*	417 (3.0)
Hispanic	685 (24.0)	77 (13.3)	879 (29.1)	80 (13.8)	1,183 (46.9)	1,253 (31.6)	37 (27.0)	4,212 (30.8)
Other/Multi	112 (3.9)	25 (4.3)	85 (2.8)	*	157 (6.2)	218 (5.5)	*	20 (3.4)
Route of Administration								
Smoking	0	458 (79.4)	809 (26.8)	24 (4.1)	2,489 (98.8)	2,890 (72.8)	53 (38.7)	6,723 (49.1)
Sniffing/Inhale	0	100 (17.3)	97 (3.2)	43 (7.4)	*	319 (8.0)	*	575 (4.2)
Injection (IDU)	0	*	2,083 (69.0)	21 (3.6)	0	699 (17.6)	*	2,822 (20.6)
Oral	2,856 (100)	*	29 (1.0)	484 (83.4)	24 (1.0)	56 (1.4)	70 (51.1)	3,561 (26.0)
Other/not given	0	0	*	*	*	*	*	15 (0.1)

Note: * indicates cell sizes of <15, masked at request of California State Alcohol and Drugs Program. In columns where one cell contains <15, the second smallest cell is also masked.
SOURCE: California Outcomes Measurement System (CalOMS)

Exhibit 3 (continued). Characteristics of Clients Admitted to Treatment, by Numbers and Percentage, in San Diego County: 2011

Characteristics	Alcohol	Cocaine/ Crack	Heroin	Other Opiates	Marijuana	Metham-phetamine Only	All Other	Total
Total *N* (%):	**2,856 (20.9)**	**577 (4.2)**	**3,019 (22.0)**	**580 (4.2)**	**2,520 (18.4)**	**3,968 (29.0)**	**137 (1.0)**	**13,696 (100.0)**
Secondary Drug								
None	1,234 (43.2)	179 (31.0)	1,173 (38.9)	350 (60.3)	925 (36.7)	1,361 (34.3)	46 (33.6)	5,274 (38.5)
Alcohol	—	191 (33.1)	283 (9.4)	60 (10.3)	919 (36.5)	995 (25.1)	22 (16.1)	2,479 (18.1)
Cocaine/Crack	196 (6.9)	—	200 (6.6)	26 (4.5)	82 (3.3)	135 (3.4)	5 (3.6)	646 (4.7)
Heroin	87 (3.0)	*	—	75 (12.9)	28 (1.1)	233 (5.9)	*	443 (3.2)
Other Opiates	77 (2.7)	*	212 (7.0)	19 (6.2)	27 (1.1)	52 (1.3)	*	232 (1.7)
Marijuana	715 (25.0)	116 (20.1)	426 (14.1)	52 (9.0)	—	1,118 (28.2)	30 (21.9)	2,472 (18.0)
Metham-phetamine	486 (17.0)	55 (9.5)	641 (21.2)	*	393 (15.6)	—	*	1,615 (11.8)
All other	57 (2.0)	*	79 (2.6)	31 (5.3)	67 (2.7)	49 (2.7)	—	307 (2.2)

Note: * indicates cell sizes of <15, masked at request of California State Alcohol and Drugs Program. In columns where one cell contains <15, the second smallest cell is also masked.
SOURCE: California Outcomes Measurement System (CalOMS)

Exhibit 4. Percentage Positive Tests for Illicit Drugs Among Adult and Juvenile Arrestees in San Diego County: 2006–2011

	Percentage in 2006	Percentage in 2007	Percentage in 2008	Percentage in 2009	Percentage in 2010	Percentage in 2011[1]
Methamphetamine						
Male adults	36	24	20	22	25	26
Female adults	47	44	31	39	33	38
Juveniles	10	8	10	6	8	4
Cocaine						
Male adults	13	11	8	7	6	6
Female adults	21	16	12	11	11	7
Juveniles	5	3	2	1	2	2
Heroin/Opiates						
Male adults	5	6	6	6	10	9
Female adults	8	8	7	8	10	9
Juveniles	1	1	1	1	5	2
Marijuana						
Male adults	40	37	36	37	39	40
Female adults	31	29	26	28	29	31
Juveniles	43	40	44	51	43	51

[1]Preliminary data for 2011.
SOURCE: San Diego Association of Governments, Substance Abuse Monitoring Program

Exhibit 5. Number and Percentage of Primary, Secondary, and Tertiary Reports Among Drugs Items Analyzed by Forensic Laboratories in San Diego County: 2011

Drug	Number	Percentage
Methamphetamine	4,938	31.5
Marijuana/Cannabis	4,477	28.5
Cocaine	1,784	11.4
Heroin	1,123	7.2
Hydrocodone	425	2.7
Phenylimidothiazole Isomer Undetermined (possible levamisole)	315	2.0
MDMA	263	1.7
Oxycodone	252	1.6
Dimethylsulfone	243	1.5
Alprazolam	197	1.3
Morphine	111	0.7
Clonazepam	94	0.6
All Other Drugs	1,473	9.4
Total	**15,695**	**100.0**

SOURCE: NFLIS, DEA, preliminary data retrieved in May 2012; data are subject to change

Exhibit 6. Retail Prices for Selected Drugs in San Diego County: 2007–2011

Drug	2007	2008	2009	2010[1]	2011[1]
Cocaine					
One-quarter gram	$50–$100	$50–$100	$50–$100	$25–$30	N/A
Gram	$60–$150	$60–$150	$60–$150	$80–$100	$75–$100
Ounce	$600–$1,000	$600–$1,000	$700–$1,000	$800–$1,200	$700–$1,200
Pound	$6,000–$10,000	$8,000–$10,000	$8,000–$10,000	$8,000–$10,000	$8,000–$11,000
Heroin (Black Tar)					
One-quarter gram	$25–$40	$15–$50	$15–$50	$25–$35	$25–$30
Gram	$80	$80–$100	$60–$80	$80–$100	$80–$100
Ounce	$600	$600–$1,200	$600–$1,200	$700–$1,200	$700–$1,200
Pound	$17,000	$10,000–$17,000	$8,000–$10,000	$8,000–$12,000	$8,000–$12,000
Marijuana					
One-quarter ounce	$30–$50	$40–$100	$40–$100	N/A	N/A
Ounce	$80–$100	$80–$150	$60–$100	$80–$120[2]	$300–$400[2]
Pound	$250–$300	$300–$400	$400–$600	$400–$600	$400–$600
Methamphetamine					
One-quarter gram	$20–$25	$20–$25	$20–$50	$25–$40	$25–$40
Gram	$50–$100	$75–$100	$75–$100	$80–$120	$80–$120
Ounce	$750–$1,000	$500–$1,500	$500–$1,500	$750–$1,200	$750–$1,200
Pound	$9,000–$12,500	$10,000–$20,000	$8,000–$15,000	$15,000–$20,000	$15,000–$20,000

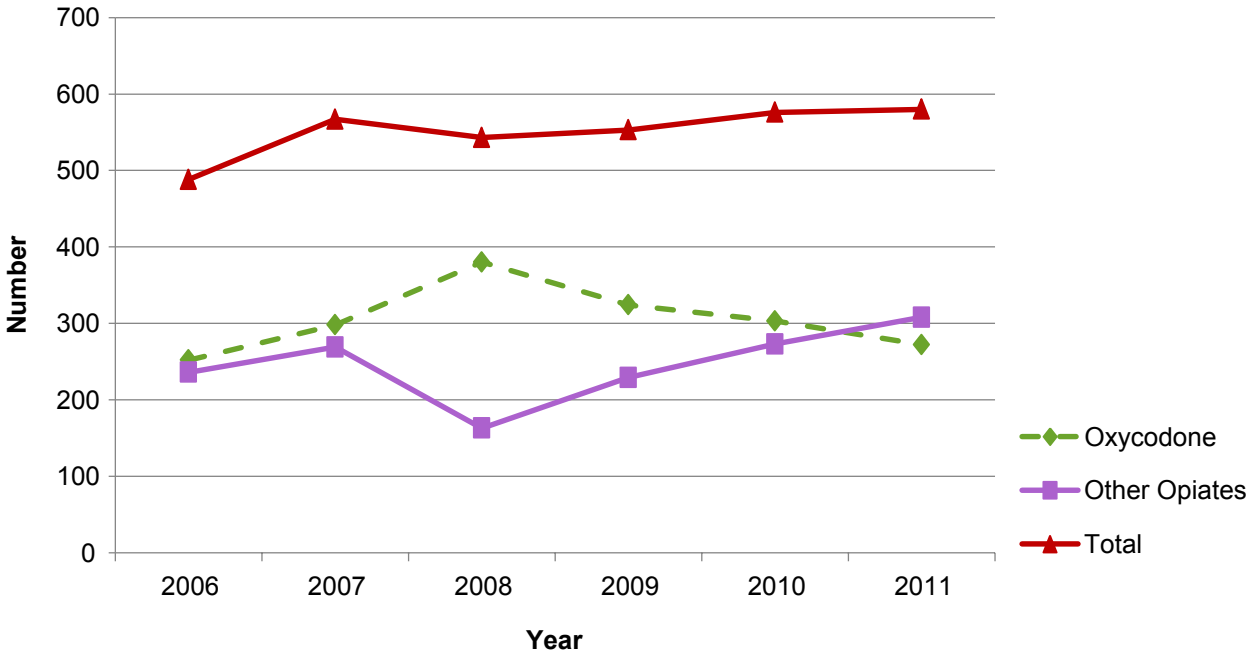
[1]Data for 2010 come from the July 2010 report. Data for 2011 come from the January 2012 report.
[2]Price data for marijuana in 2010 were reported for "Mexican" marijuana, while price data in 2011 were reported as "low-grade" marijuana in the Law Enforcement Coordination Center Street Drugs Price List.
SOURCE: San Diego Law Enforcement Coordination Center Street Drugs Price List

Exhibit 7. Number and Rate of Deaths Due to Drug Overdose Involving Amphetamine and/or Heroin/Morphine in San Diego County: 2001–2011

Year	Amphetamine-Involved Drug Deaths		Heroin/Morphine-Involved Drug Deaths	
	Number	Rate[1]	Number	Rate[1]
2001	58	2.03	107	3.74
2002	93	3.18	129	4.42
2003	99	3.33	116	3.90
2004	105	3.48	87	2.89
2005	113	3.70	90	2.95
2006	90	2.93	84	2.74
2007	100	3.23	109	3.52
2008	83	2.64	105	3.34
2009	88	2.75	118	3.69
2010	115	3.57	105	3.26
2011	119	3.69	118	3.66

[1]Rates per 100,000 population.
SOURCE: County of San Diego Health and Human Services Agency, Emergency Medical Services Medical Examiner Database

Exhibit 8. Number of Primary Treatment Admissions for Oxycodone and Other Prescription Opiates in San Diego County: 2006–2011



SOURCE: California Outcome Measurement System (CalOMS)

Drug Abuse Patterns and Trends in the San Francisco Bay Area—Update: June 2012

Alice A. Gleghorn, Ph.D.[1]

ABSTRACT

Indicators for methamphetamine and other opiates were up across the five bay area counties and Sacramento, cocaine and marijuana indicators continued to decline, and alcohol and heroin showed some decreases. Methamphetamine continued to lead in number of drug reports detected among items seized and analyzed by National Forensic Laboratory Information System (NFLIS) laboratories, and ranked second to marijuana in arrestee toxicology screens. Methamphetamine treatment admissions remained high and stable across the bay area. Various prescription opiates appeared with increasing frequency among reports from drug items seized and analyzed in NFLIS laboratories. Other opiates also ranked high and remained stable in nonfatal emergency department visits, and were involved frequently in drug-related deaths, as reported by the Substance Abuse and Mental Health Services Administration's Drug Abuse Warning Network and in San Francisco Medical Examiner reports. Data from California's prescription drug monitoring programs show hydrocodone as the predominant opioid prescribed across all bay area counties. However, methadone indicators declined or remained low and stable. Although price and purity data for heroin from 2007 to 2010 continued to decline, field reports of a spike in overdoses in early 2012 suggest that a more potent form may be available. Additional observations suggested that increasing numbers of youth and young adults were initiating opiate use through accessing prescribed medications, and were subsequently moving to other opiates and alternates to oral administration. There were several indicators of decreasing demand for medication-assisted treatment in San Francisco, with requests for methadone and buprenorphine maintenance slots decreasing among homeless individuals. Although the number of admissions declined overall, alcohol remained the most frequent primary drug in bay area treatment admissions, while treatment admissions for marijuana and cocaine continued to decline, and those for heroin remained stable across the bay area. Human immunodeficiency virus (HIV) surveillance reports showed continued downward trends in acquired immune deficiency syndrome (AIDS) incidence and mortality in San Francisco.

INTRODUCTION

Area Description

The San Francisco and Northern California area that is the focus of this report includes all five of the bay area counties, as well as Sacramento, California's capital, which lies less than 100 miles to the northeast (population 1,418,788). The five bay area counties include Alameda (population

[1]The author is the County Alcohol and Drug Administrator for the San Francisco Department of Public Health.

1,491,550) and Contra Costa (population 1.040,300) in the east bay, Marin (population 252,400) in the north bay, San Mateo (population 718,450) in the south bay, and San Francisco (population 805,200) (U.S. Census Bureau, 2010). The population size of the area ranks 11th in the country, and has grown significantly over the past 20 years, although the rate of growth slowed during the past decade (with an 11 percent change from 1990 to 2000, and a 5-percent change from 2000 to 2010). The city and county of San Francisco attract immigrants, both legal and undocumented, from many foreign countries (35.6 percent of the total population are foreign born, and nearly one-half, or 45.5 percent, speak a language other than English in the home), and as a result have an ethnically diverse population that includes the following: 41.9 percent non-Hispanic White, 33.3 percent Asian, 15.1 percent Latino, 6.1 percent Black, 4.7 percent two or more races, 0.5 percent American Indian/ Alaskan Native, and 0.4 percent Native Hawaiian or Other Pacific Islander. The population is largely adult and older adults; there are few children younger than 5 (4.4 percent) or younger than 18 (13.4 percent). The area has more elderly adults (13.6 percent) compared with the State of California (which has the following proportions: 6.8 percent children younger than 5, 25 percent younger than 18, and 11.4 percent elderly adults).

The San Francisco Bay area includes some of the country's wealthiest communities, and median household income, median home values, and education levels exceed those seen across California. Fewer individuals (11.9 percent) live below the Federal poverty level than elsewhere in the State (13.7 percent). In general, California has been hit hard by recent economic declines, but began to see reduced unemployment rates in the second half of 2011, with bay area unemployment decreasing to 8.9 percent (Bureau of Labor Statistics, 2012). California Governor Jerry Brown continued to propose and implement strategies to address the State's ongoing budget crisis, including dramatic reductions in the State prison population (realigning responsibilities to local county level), reductions in State government employees and work days, a ballot initiative to increase taxes on millionaires in order to balance State budget deficits, and substantial increases in State higher education fees. Locally, San Francisco's economy has had several tourism and high tech-related boosts and appears on the verge of an upswing.

Data Sources

The sources of data for the drug abuse indicators cited in this report are described below:

- **Treatment admissions data** for Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties were provided by the Department of Alcohol and Drug Programs California Outcomes Measurement Systems (CalOMS) for calendar years (CYs) 2007–2011. In San Francisco, a new Electronic Health Record and billing system ("Avatar") was implemented in July 2010. Therefore, data reported prior to that date may not be comparable to subsequent reports. In addition, there were many system-wide data issues that were still being corrected at the county level nearly 2 years after initial implementation. Therefore, available CalOMS data from San Francisco continue to be preliminary and subject to correction. Additional treatment admission data for buprenorphine treatment at the Integrated Buprenorphine Intervention Services program (IBIS) were provided by the Outpatient Buprenorphine Induction Clinic (OBIC) at the San Francisco Department of Public Health (SFDPH) for fiscal years (FYs) 2006–2007 to 2011–2012 (partial year data). San Francisco's Project Homeless Connect provided event data on referrals for immediate access to opiate treatment (primarily methadone treatment) from 44 bimonthly events from October 2005 to May 2012.

- **Emergency department (ED) data** were accessed from the California Department of Public Health (CDPH), Safe and Active Communities Branch, Nonfatal Emergency Department visits, Data on Alcohol and Drug Health Consequences, Poisoning Injuries, http://epicenter.cdph.ca.gov on May 26, 2012.

- **Overdose death data** were obtained from two sources: the San Francisco Medical Examiner's annual report for FY 2009–2010 on drugs detected in death investigations http://sfgsa.org/Modules/ShowDocument.aspx?documentid=7888 and the Drug Abuse Warning Network (DAWN) 2009, Center for Behavioral Health Statistics and Quality (CBHSQ), Substance Abuse and Mental Health Services Administration (SAMHSA), Area Profiles of Drug-Related Mortality: San Francisco-Oakland-Fremont, CA (http://www.samhsa.gov/data/ 2k11/DAWN/2k9DAWNME/HTML/DAWN2k9ME).

- **Drug seizure data** were provided by the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA). Data were retrieved on May 8, 2012, for the five bay area counties for 2009–2011. A recent change in NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis. The numbers of NFLIS reports now include primary, secondary, and tertiary substances for crime laboratory items analyzed and provide a more complete surveillance than when only the primary substance detected was reported. Because of this change, it is not appropriate to compare the 2011 NFLIS data to those in previous CEWG Reports. Data for 2011 are provisional and subject to change.

- **Heroin price and purity data** for 2001–2010 were provided by the DEA's draft *2010 Heroin Domestic Monitoring Program (HDMP) Report* of July 8, 2011.

- **Arrestee toxicology reports** from Sacramento adult arrestees from 2000 to 2011 were obtained from the Whitehouse Office of National Drug Control Policy (ONDCP) Arrestee Drug Abuse Monitoring (ADAM) II report, available at http://www.whitehouse.gov/ ondcp/arrestee-drug-abuse-monitoring-program/latest-trends-in-arrestee-drug-use-by-drug-type-or-city.

- **Acquired immune deficiency syndrome (AIDS) surveillance data** were provided by the SFDPH, *HIV Epidemiology Section, Quarterly HIV/AIDS Surveillance Report, HIV/AIDS Cases Reported Through March 2012,* accessed at http://www.sfdph. org/dph/files/reports/RptsHIVAIDS/qReport MAR2012.pdf.

- **Data for the top prescribed drugs** for the five bay area counties for 2009–2011 were provided by the California Department of Justice, Law Enforcement Support Program, Bureau of Criminal Identification and Investigative Services from the Controlled Substance Utilization Review and Evaluation System (CURES), California Prescription Drug Monitoring Program (PDMP) (http://oag.ca.gov/cures-pdmp).

Data Limitations

Updated data from several regular sources were unavailable at the time of CEWG report preparation. This included updated area estimates for DAWN ED data for 2010 and arrest data for San Francisco from the California Department of Justice. In addition, drug laboratory data from Alameda and San Francisco Counties were not included in the NFLIS reports, and Alameda County data

were not included in the DAWN death reports for 2009 for the San Francisco Metropolitan Statistical Area. Finally, drug treatment data for San Francisco are reported only in combination with other bay area counties as transition to a new system resulted in many data problems specific to accuracy and documentation of substance abuse clients and services. Therefore, San Francisco numbers likely underestimate actual volume of client admissions, and similarly do not accurately reflect primary drug problems at admission.

Overview of Findings

The trend in increasing methamphetamine reports among drug items seized and analyzed in NFLIS laboratories continued across the bay area, as this drug accounted for 34 percent of total reports and was the most frequently identified drug among items analyzed. In nearby Sacramento, 43 percent of arrestees tested in the ADAM II 2011 survey were urinalysis-positive for methamphetamine, ranking the drug second behind marijuana (with 55 percent urinalysis-positive). However, methamphetamine treatment admissions remained stable and ranked second across the five bay area counties in 2011. Alcohol remained the most frequent primary drug in bay area treatment admissions, although the overall number of admissions declined, as did reports of alcohol associated with nonfatal ED visits reported by the CDPH. However, alcohol ranked first (at 22 percent) among drugs reported across all deaths reviewed by the San Francisco Medical Examiner (ME) in 2010, and it ranked fourth (at 27 percent) among drug-related ME deaths.

Although cocaine ranked first among drug-related ME deaths (accounting for 39 percent of such deaths), and second among all ME deaths, cocaine reports constituted only 16 percent of total reports in drug items seized and analyzed in NFLIS laboratories. The trend of decreasing primary cocaine treatment admissions continued across bay area drug treatment settings, with cocaine ranking fourth behind alcohol, methamphetamine, and heroin (with marijuana ranking fifth).

Similarly, treatment admissions for marijuana continued to decline across the bay area, and drug reports among items analyzed by NFLIS laboratories continued to decrease (but marijuana ranked second behind methamphetamine for the second consecutive year). Routine screening for marijuana was initiated by the ME's Office, resulting predictably in increased detection (accounting for 7.0 percent of all ME deaths in 2010). While primary treatment admissions for heroin remained stable across the bay area, there were several indicators of decreasing demand for medication-assisted treatment in San Francisco. Requests for methadone and buprenorphine maintenance slots decreased among homeless individuals seeking services at bimonthly Project Homeless Connect events. Heroin prices continued to increase, while purity declined to 5.7 percent pure. Drug reports identified as heroin among items seized and analyzed in NFLIS laboratories declined, with heroin accounting for fewer reports (with 3.6 percent of total reports) than other opiates such as hydrocodone (constituting 4.0 percent of total reports). A recent spike in heroin overdose events has been identified by prevention staff; they reported that some episodes were potentially linked to fentanyl mixed with heroin or a more potent form of black tar heroin.

The availability of prescription opiates continued to increase; analysis of data from California's PDMP indicates that hydrocodone is the predominant opioid prescribed across all bay area counties. Hydrocodone also ranked fourth in NFLIS reports from items seized and analyzed in NFLIS laboratories, surpassing heroin for the first time. Oxycodone reports in drug items seized and analyzed in NFLIS laboratories also increased from the previous year (constituting 2.5 percent of

reports), and ranked sixth overall. Methadone was detected in 33 percent of drug-related ME deaths (ranking second). The proportion of methadone across all ME deaths was 10.3 percent, and was increasing. Detection rates among Sacramento arrestees for methadone were low (at 10 percent) and stable, and a decline in NFLIS reports for methadone in drug items seized and analyzed by NFLIS laboratories continued.

"Club drug" indictors were rare, and MDMA (3,4-methylenedioxymethamphetamine) reports in drug items seized and analyzed by NFLIS laboratories continued to decline. However, levamisole reports among items seized and analyzed by NFLIS appeared to be increasing. Field observations suggested that increasing numbers of youth and young adults were initiating opiate use through accessing prescribed medications, and subsequently moving to other opiates and alternates to oral administration.

DRUG ABUSE TRENDS AND EMERGING PATTERNS

Alcohol

Although treatment admission numbers for alcohol appeared to be continuing the decline that began in 2009, alcohol remained the top primary drug among admissions for substance abuse treatment across the five bay area counties (exhibit 1). However, among nonfatal poisoning injuries recorded by the CDPH, alcohol remained the lowest frequency drug seen in ED visits from 2006 to 2010 in San Francisco. Alcohol figures prominently in death data; the San Francisco ME reported alcohol as the leading substance detected among all deaths reviewed in 2010 (it was detected in 22 percent of cases), and alcohol ranked fourth among drugs detected in ME determined drug-related deaths (with 27 percent) (exhibit 2). DAWN death data also recorded alcohol involvement in 2009 death data; alcohol ranked third in frequency of drug-related deaths (*n*=77) recorded across four bay area counties (no data were available for Alameda County). In every case, alcohol was not the only substance detected; all of these deaths involved at least one other drug in combination with alcohol (exhibit 3).

Cocaine

Although cocaine remained prominent in death data reports from 2009 and 2010, most other indicators showed continued marked declines. Cocaine ranked first among drug-related accidental deaths reported by the San Francisco ME in 2010 (with 39 percent of such deaths), and ranked second among detected drugs across all deaths examined by the ME (at 14.5 percent) There was no significant change in this proportion from 2009. DAWN drug-related death data also showed cocaine as ranking second (*n*=87) among drug-related deaths in four bay area counties, with a majority (70 percent) determined to be multiple drug deaths. Data from items seized and analyzed by NFLIS laboratories ranked cocaine as the third most frequent drug identified among reports (*n*=1,339, 16.3 percent of total reports), continuing a decreasing trend since 2009, when cocaine (at 25 percent) was second only to marijuana/cannabis (with 26.8 percent of total reports) (exhibit 4). Bay area treatment admissions also reflected declining cocaine numbers; cocaine admissions fell to fourth rank, continuing a downward trend that began in 2009.

Methamphetamine

Indictors for methamphetamine were elevated and mostly increasing. NFLIS data showed that one-third of reports among drug items seized and analyzed in NFLIS laboratories (*n*=2,813, 34.2 percent of total reports) were identified as containing methamphetamine. Methamphetamine ranked first among reports, exceeding marijuana reports for the second year in a row. Toxicology screenings testing positive for methamphetamine also increased to more than 40 percent for Sacramento arrestees documented in the ONDCP ADAM II program (exhibit 5). Treatment admissions across the bay area for methamphetamine remained high and stable from 2010, ranking second only to alcohol. There was no change in ME reports, which found methamphetamine in 7.2 percent of all deaths; it ranked seventh in drug-related deaths, and was detected in 13 percent of these cases. DAWN death data for 2009 ranked stimulants other than cocaine as the fourth most common substance in drug-related deaths, with one-third of these determined to be single-drug deaths, and two-thirds to be multiple-drug deaths.

Marijuana

While marijuana continued to be the most frequently detected drug among arrestees screened for drug use in Sacramento in 2011 (more than 50 percent tested urinalysis-positive), according to the ADAM II data, these proportions represented a slight decrease from the previous year. Other indicators of decline included a third year of reduced treatment admissions across the bay area, and fewer marijuana items were identified among reports from drug items analyzed by NFLIS laboratories. Marijuana dropped from the top rank among reports from drug items seized and analyzed in 2009 (from 26.8 percent of total reports in 2009, to 24.1 percent in 2010, and then to 20.0 percent in 2011). Increases in methamphetamine reports and decreases in cocaine reports resulted in marijuana/cannabis ranking second among total reports in 2011. In 2010, the San Francisco ME's office began to routinely test for marijuana in all their death investigations. Not unexpectedly, this change in procedure resulted in more frequent detection over the previous year of marijuana in the ME death reviews, finding marijuana present in 7.0 percent of all ME deaths in 2010.

Heroin/Other Opiates

Data indicators for heroin were generally declining, although recent field reports suggested some alarming increases. Treatment admissions for heroin as a primary drug remained stable, but cocaine's declining rates moved heroin into third rank. Several San Francisco treatment programs showed decreased requests for treatment, including reduced admissions reported for the second consecutive year by the OBIC, which provides no-fee entry service and medication for low income opiate (mainly heroin) dependent San Francisco residents. San Francisco's Project Homeless Connect, a bimonthly "one-stop" outreach service for homeless San Franciscans which has been offering immediate access to publically supported opiate treatment slots (primarily methadone) since 2005, has seen a marked decrease in clients requesting these services (exhibit 6), from a peak average of more than 100 per event in events held in 2006–2007, to an average of less than10 per event for the most recent events in 2011–2012. Heroin reports among drug items seized and analyzed by NFLIS laboratories also declined. Heroin ranked fifth among all drug reports (with 3.6 percent) in 2011, and it was surpassed by hydrocodone reports (which accounted for 4.0 percent of total reports among analyzed items in 2011). Although difficult to name reliably in ME deaths, heroin was indicated in just 1.3 percent of all ME examined deaths in San Francisco in 2010, reflecting a decrease from 2009.

Opiates as a general category had the highest number of drug-related deaths in 2009 DAWN data across four bay area counties, with the majority of deaths (84 percent) involving multiple drugs. The total DAWN reported deaths related to other opiates declined from 180 in 2007 to 149 in 2009, while heroin associated deaths increased slightly from 15 in 2008 to 24 in 2009 (exhibit 7). Other opiates were also frequently identified in ME reports of drug-related accidental deaths, including methadone (at 33 percent and ranking second), morphine (at 29 percent and ranking third), oxycodone (at 19 percent, ranking fifth), codeine (at 11 percent, ranking eighth), and hydrocodone (at 10 percent, ranking ninth). In all ME deaths, morphine, heroin, and codeine decreased from the previous year, while methadone, oxycodone, and hydrocodone increased; fentanyl deaths were stable. Several prescribed opiates were also identified with increasing frequency in NFLIS reports. Hydrocodone ranked fourth among all reports in 2011 (increasing from 2.7 percent of total reports in 2009 to 4.0 percent in 2011), and oxycodone increased from 1.9 percent of reports in analyzed items in 2010 to 2.5 percent in 2011. Reports of methadone among drug items seized and analyzed, however, continued to decline; they accounted for 0.9 percent of all reports from drug items in 2011, which was a decrease from 1.4 percent in 2009. Opioids increased steadily in nonfatal ED poisoning injuries in San Francisco, as reported by the CDPH from 2006 to 2010, ranking second to sedatives (which also increased during the same time period). Further analysis of age groups showed that increases for ED nonfatal opioid injuries were seen primarily among individuals age 45–64 (exhibit 8).

Heroin and other opiates figured prominently in anecdotal reports from the field. Many diverse sources (researchers; treatment providers; and workers in health services, overdose prevention, youth, human immunodeficiency virus [HIV] treatment, and needle exchange programs) reported young adults using heroin and other prescription opiates. Some reports suggested that youth access prescription opiates by raiding legitimate prescriptions of family members, and when they are unable to obtain additional pills, may begin to purchase opiates from dealers or progress to heroin use. Field staff reported that parents of these young adults may be unaware these youth are becoming drug-involved, and the youth themselves may be unaware of the HIV and hepatitis risks of their drug use. Several reports noted that youth had switched from OxyContin® to Kadian®, Opana®, Dilaudid®, morphine, and Roxicodone® when the "tamperproof" formulation of OxyContin® became more common. There were several reports of attempts to render opiate pills suitable for snorting, smoking, or injection, the latter of which resulted in injection site injuries and vein damage associated particularly with the new "tamperproof" formulations of prescription opiates. There were numerous reports of young opiate users seeking substance abuse treatment, primarily buprenorphine or methadone. Overdose prevention outreach staff reported that 20 percent of recent overdose reversals involved a prescription drug, most commonly a fentanyl patch or Dilaudid®. There were several reports of a more potent form of heroin available in early 2012. The drug was commonly reported to look very similar to the usual black tar heroin and was sometimes called "gun powder." There were increased numbers of overdoses, requests for overdose prevention kits containing naloxone, and some deaths associated with this drug.

Information on the top 50 prescribed drugs recorded in CURES, California's PDMP, for each bay area county was available for 2009–2011 for this report (exhibit 9). The data included both the number of prescriptions written for each medication drug class (e.g., lorazepam), dosage (e.g., 1 milligram, 0.5 milligram), and the quantity dispensed. Categories of drug classes were combined across dosages to determine the most frequently prescribed medication, and dosage units of the top 20 prescribed drugs were combined within each drug class to examine the total dosage units

dispensed in each county. Hydrocodone/APAP was the most frequently prescribed medication by a wide margin across the bay area, with a total of 1,715,673 prescriptions during 2011. This was followed by just 110,467 prescriptions for oxycodone/APAP (5/325) and 60,891 for methadone (10 milligrams). In examining dosage units across counties, aside from the clear dominance of hydrocodone, followed generally by methadone and oxycodone, prescribing practices differed across counties in that some (Alameda, Contra Costa, and San Mateo Counties) had marked quantities of hydrocodone/APAP elixir dispensed (1,183,638 units, 2,253,776 units and 746,365 units, respectively), while others registered codeine/APAP (867,795 units in San Francisco) or paregoric (481,090 units in San Mateo County) within their top 20 prescribed drugs. The widespread availability of these medications through prescriptions may contribute to the increased presence of these drugs in epidemiological indicators elsewhere in this report.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

HIV/AIDS Update

As of March 31, 2012, there were 29,125 cumulative AIDS cases and 5,996 HIV non-AIDs cases in San Francisco. A total of 22.2 percent of these AIDS cases were associated with drug-related transmission categories, including 2,125 heterosexual male and female injection drug users (IDUs), 4,347 men who have sex with men/IDUs, and 61 lesbian or bisexual female IDUs. New infections continued to decline.

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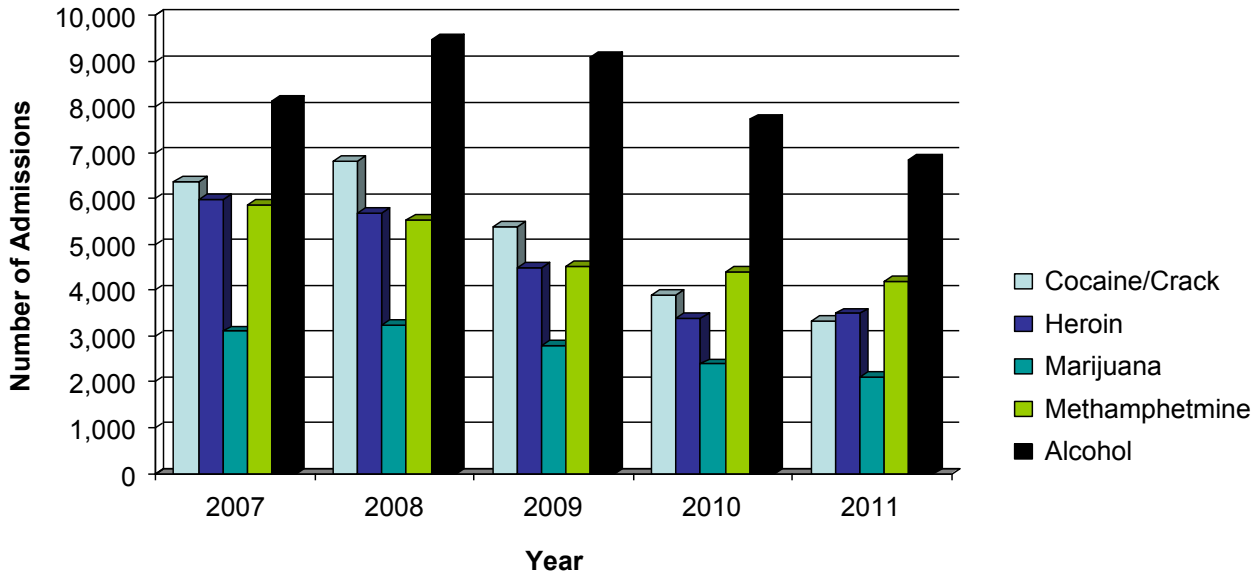
Exhibit 1. Number of Treatment Admissions in the San Francisco Bay Area[1]: 2007–2011[2]



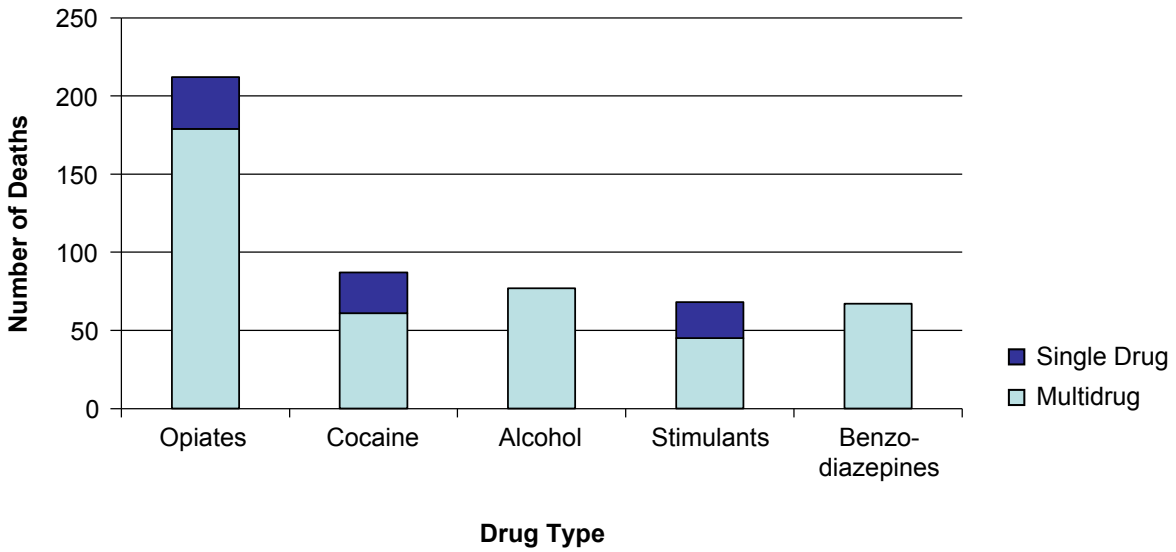
[1]The San Francisco Bay Area includes Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties.
[2]Due to a system transition some data may be missing in 2010 and 2011.
SOURCE: California Outcomes Measurement System (CalOMS)

Exhibit 2. Most Frequently Detected Drugs in Drug-Related Deaths, by Percentage of the Total and Change from Previous Year, in San Francisco: 2010

DRUG	PERCENTAGE	CHANGE FROM 2009
Alcohol	22.0	No Change
Cocaine	14.5	No Change
Narcotic Analgesics		
Morphine	10.6	Decrease
Methadone	10.3	Increase
Oxycodone	6.9	Increase
Codeine	5.2	Decrease
Hydrocodone	4.7	Increase
Fentanyl	1.7	No Change
Heroin	1.3	Decrease
Methamphetamine	7.2	No Change
Marijuana	7.0	Increase (new addition to screen)
Benzodiapines		
Diazepam	9.0	No Change
Nordiazepam	9.0	No Change
Others	0.4–2.6	Increase

SOURCE: San Francisco Medical Examiner Reports

Exhibit 3. Number of Drug-Involved Deaths, for the Top Five Drugs, in Four San Francisco Bay Area Counties[1]: 2009



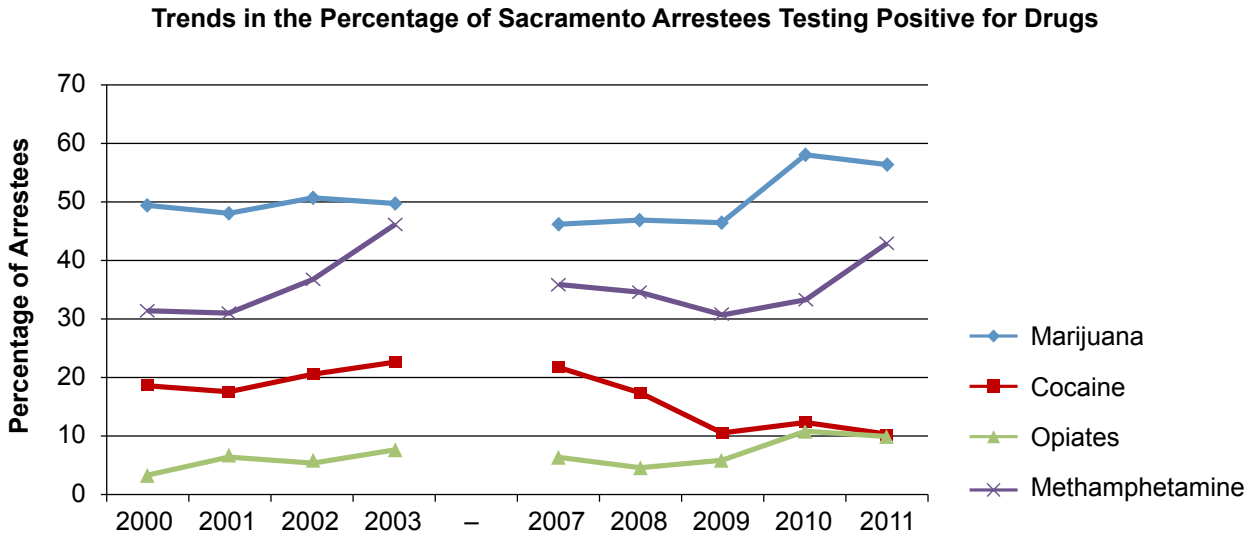
[1]Contra Costa, Marin, San Francisco, and San Mateo Counties.
SOURCE: DAWN, CBHSQ, SAMHSA

Exhibit 4. Percentage of Drug Reports Among Total Reports From Drug Items Seized and Analyzed in the San Francisco Bay Area[1]: 2009–2011[2]

Drug	Percentage in 2009	Percentage in 2010	Percentage in 2011
Methamphetamine	18.8	28.1	34.1
Marijuana/Cannabis	26.8	24.1	20.0
Cocaine	25.0	18.0	16.3
Hydrocodone	2.7	3.4	4.0
Heroin	5.1	4.1	3.6
Oxycodone	3.3	1.9	2.5
MDMA	3.8	4.4	2.3
(Possible Levamisole)	0.6	1.0	1.2
Methadone	1.4	0.9	0.9
Unknown	1.9	5.6	4.6

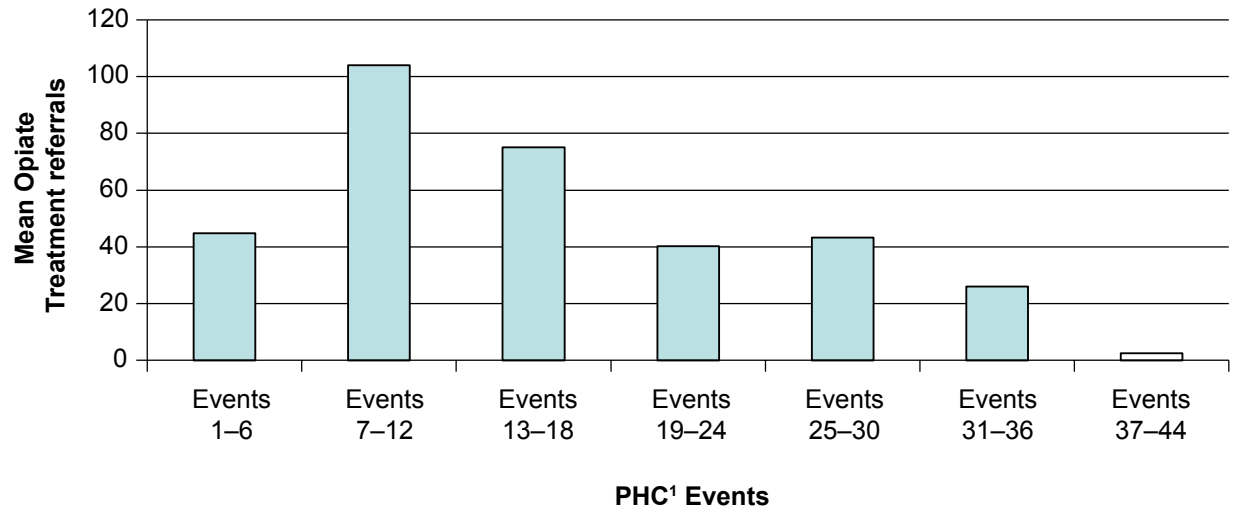
[1]Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties.
[2]Data are subject to change.
SOURCE: NFLIS, DEA

Exhibit 5. Percentage of Arrestees Testing Positive for Select Drugs in Sacramento: 2000–2011



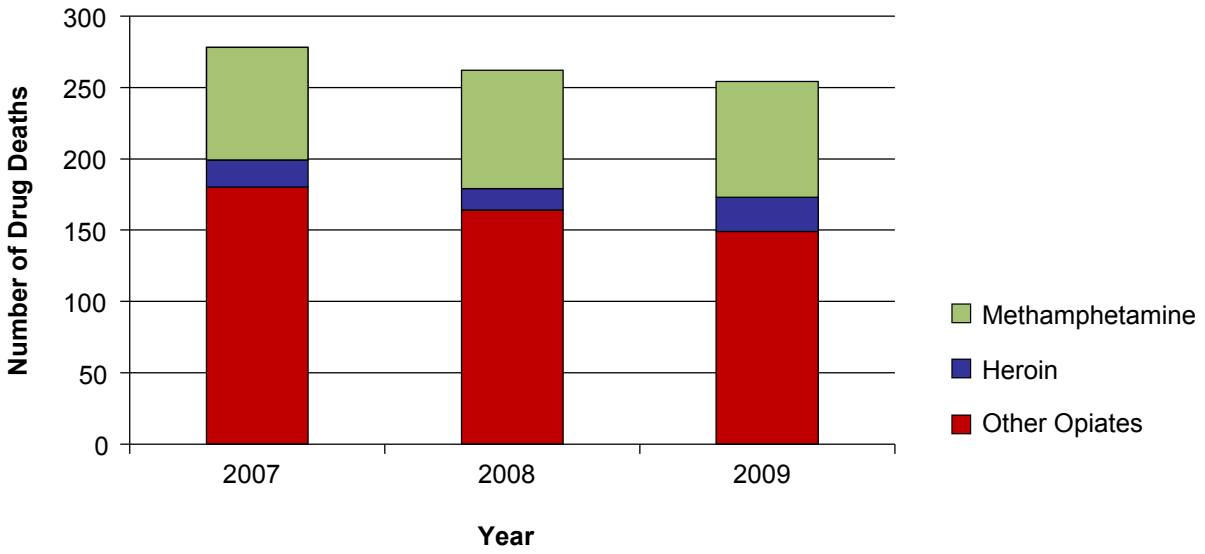
Note: No data were collected by the ADAM program in 2005.
SOURCE: ADAM II, ONDCP

Exhibit 6. Number of Referrals to Publicly Supported Opiate Treatment in San Francisco: October 2005–May 2012



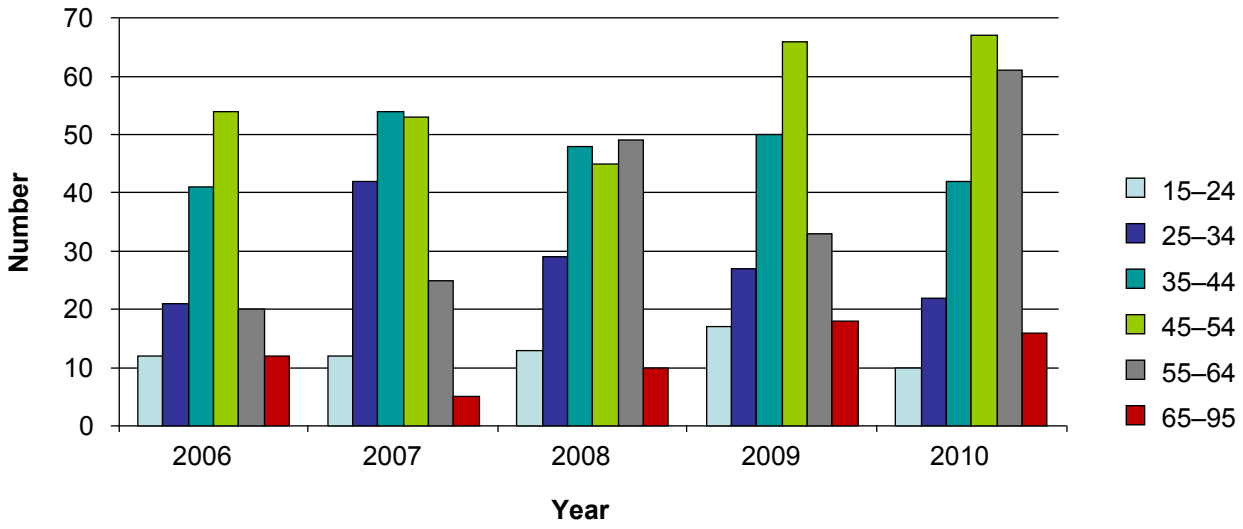
[1]PHC=Project Homeless Connect.
SOURCE: San Francisco Project Homeless Connect

Exhibit 7. Number of Opiate-Related Deaths in Four San Francisco Bay Area Counties[1]: 2007–2009



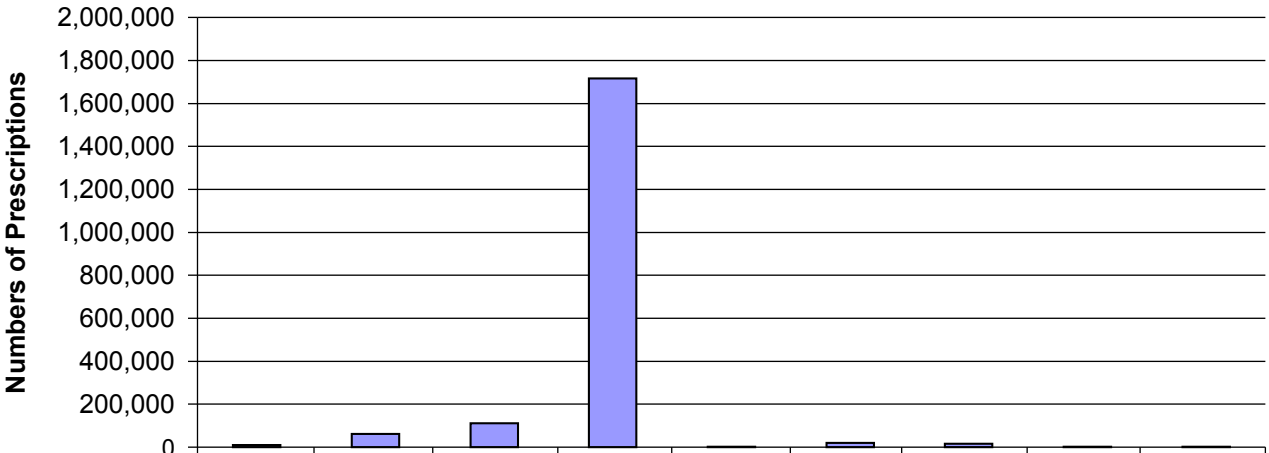
[1]Contra Costa, Marin, San Francisco, and San Mateo Counties.
SOURCE: DAWN, CBHSQ, SAMHSA

Exhibit 8. Number of Opioid-Related Poisoning Injuries, Nonfatal ED Visits, by Age Groups, in San Francisco: 2006–2010



SOURCE: http://epicenter.cdph.ca.gov, May 26, 2012

Exhibit 9. Numbers of Prescriptions in the San Francisco Bay Area: 2011



	Hydro-codone/ APAP Elixir	Methadone (10MG)	Oxycodone/ APAP (5/325)	Hydro-codone/ APAP	Hydro-morphone	Codeine/ APAP	Oxycodone (5MG)	Paregoric	Hydro-codone/ Homatropin
TOTAL Number	10,669	60,891	110,467	1,715,673	2,736	20,423	15,953	9	1,839

SOURCE: California Prescription Drug Monitoring Program

Drug Abuse Trends in the Seattle/ King County Area: 2011

Caleb Banta-Green[1], T. Ron Jackson[2], Steve Freng[3], Michael Hanrahan[4], Geoff Miller[8], Steve Reid[5], John Ohta[6], Mary Taylor[7], Richard Harruff[8], David Albert[9], and Robyn Smith[10]

ABSTRACT

Cocaine indicators (including deaths, treatment admissions, and Help Line calls) have been trending down consistently and substantially over the past several years. The reasons for this decline are unknown, although the decline may have to do in part with decreased availability due to growing and distribution issues. First time heroin treatment admissions increased, particularly for young adults age 18–29, with a faster rate of growth outside of King County. Prescription-type opiate-involved deaths declined for the second year and treatment admissions declined for the first time. The wait list for opiate substitution treatment increased after a few years of decline. Methamphetamine abuse indicators appeared to have plateaued at a somewhat lower rate than the peak reached several years ago. Marijuana use was widespread, and treatment admissions have held fairly steady in recent years. Approximately one-half of primary marijuana treatment admissions were younger than 18, and three-quarters were male—very different demographic characteristics compared with other drugs. MDMA (3,4-methylenedioxymethamphetamine) indicators remained below those for other drugs. Cannabinoid homologs (cannabimimetics) such as "Spice" and "K2" and substituted cathinones related to the plant khat and colloquially, but incorrectly, called "bath salts" are occasionally detected in law enforcement evidence. Human immunodeficiency virus (HIV) incidence and prevalence remained low; utilization of the syringe exchange was extremely high, with more than 4,000,000 syringes distributed in 2011.

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[10]The author is affiliated with the Washington Recovery Help Line.

INTRODUCTION

Data Sources

The primary sources of information used in this report are listed below:

- **Drug trafficking data** were obtained from the Drug Enforcement Administration (DEA), Seattle Field Division Quarterly Trends in the Traffic Reports, Domestic Monitoring Program (DMP) heroin purchase data (edited versions) were also used along with DEA System to Retrieve Information from Drug Evidence (STRIDE) data for Washington State for heroin purity. Data were also obtained from the Threat Assessment Report produced by the Northwest High Intensity Drug Trafficking Area (NW HIDTA) program, which included survey data from local law enforcement throughout the State of Washington.

- **Fatal drug overdose data** were obtained from the King County Medical Examiner (KCME), Public Health – Seattle & King County (PHSKC). The other opiates category represents pharmaceutical opioids (oxycodone, hydrocodone, methadone, and other opioids), including pharmaceutical morphine where noted; however, codeine is excluded. The heroin/opiate category includes heroin, morphine (unless noted to be pharmaceutical), and cases in which there was an indication that the death was "heroin related" in the KCME database.

- **Ambulance data on nonfatal opioid overdoses** were obtained from the Seattle Fire Department's Medic One unit for 2011 for cases in the city of Seattle.

- **Data on seized drug samples submitted for analysis** were obtained from the National Forensic Laboratory Information System (NFLIS), DEA, for 2009–2011. Data for 2011 are preliminary and are subject to change. Data reported differ somewhat in their inclusion criteria from data in prior CEWG reports (data include primary, secondary, and tertiary reports in all items analyzed), therefore data from this report should not be directly compared with previous reports. Drug testing results for local, State, and Federal law enforcement seizures in King County were reported. A Washington State Patrol Crime Laboratory chemist provided qualitative impressions of drug seizure evidence tested for OxyContin® (regarding the old versus the new drug formulation).

- **Drug treatment data** were provided by Washington State Department of Social and Health Services (DSHS), Division of Behavioral Health and Recovery, Treatment Report and Generation Tool (TARGET), from 1999 through 2011. Treatment modalities included outpatient, intensive inpatient, recovery house, long-term residential, and opiate substitution admissions. As opposed to previous reports, admissions that were not publicly funded, mostly for methadone maintenance treatment, were not included. This is due to changes in State requirements for methadone maintenance treatment to report to the TARGET system, resulting in underreporting the prior few years. Prescription monitoring program data provided a count of the number of people receiving medication-assisted treatment with buprenorphine. A separate analysis was conducted to examine first-time admissions to treatment; these analyses used fiscal year (FY) data (July–June). Data are for clients who had never entered publicly funded treatment in Washington State and whose primary drug was reported to be heroin.

- **Help Line data** for the second half of 2011 were provided for all callers from King County. The data are combined from the Washington Recovery Help Line, King County, and Crisis Clinic, with mentions of specific drugs. A new agency oversees the Help Line, and data are not directly comparable to data from prior years. Percentages reported exclude cigarettes and alcohol from the denominator.

- **Data on infectious diseases related to drug use and injection drug use,** including the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), were provided by PHSKC. Data on HIV cases (including exposure related to injection drug use) in Seattle/King County (1982–2011) were obtained from the "HIV/AIDS Epidemiology Report." Data for the number of syringes exchanged/distributed were also provided by PHSKC.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine

Cocaine-involved deaths were down substantially with 47 in 2011, compared with the peak of 111 in 2006 (exhibit 1). In 2011, 24 decedents were age 50 or older, a similar proportion as in 2006, and cocaine deaths declined across all age groups. Other drugs were often involved in cocaine-involved deaths. Other opiates were the most common substance also present in 38 percent of cocaine deaths, compared with 17 percent with benzodiazepines present, 15 percent with alcohol, 26 percent with heroin, and none with methamphetamine.

Cocaine-related Help Line calls represented 12 percent of calls, ranking sixth for drugs reported (exhibit 2). Although not directly comparable with older data, it appeared that the number and proportion of calls for cocaine peaked in 2006 and has steadily declined since.

Drug treatment admissions for cocaine as the primary drug have decreased substantially in recent years, while admissions for other major drugs of abuse have remained flat (except for alcohol admissions which have also declined) (exhibit 3). In 2011, there were 934 cocaine primary admissions; this was approximately one-half the number in 2008. The decline in admissions was evident across all age groups; clients age 40 and older remained the largest group entering treatment in 2011.

Cocaine was the most common drug detected among reports of items seized by law enforcement and analyzed in NFLIS laboratories in 2011, totaling 405 of 1,978 reports. This appeared similar to 2010 and lower than 2009 (exhibit 4).

Heroin

Serious opiate overdoses to which the Seattle Fire Department Medic One responded were determined to involve heroin in 43 percent of cases, of which 6 percent also involved a prescription-type opiate (exhibit 5). The median age was 33, and the mean age was 38, which was younger than those for prescription-type opiate-involved cases. In 44 percent of the cases, other drugs of abuse were noted as either being consumed or at the scene of the overdose. Paramedics administered naloxone (an opiate antidote) in 65 percent of cases.

Heroin-involved drug deaths increased slightly in 2011; there were a total of 66 heroin-probable deaths, compared with 51 in 2010. The number is smaller than the total of 144 heroin-involved deaths in 1998, but other indicators suggest that the number of heroin users may be higher. It is possible that the lower level of deaths is more closely linked to the substantially lower heroin purity (see below for details) than the number of users. A total of 21 heroin-probable deaths involved decedents who were age 30 or younger, the largest number and percentage (32 percent) since 2000. Alcohol and benzodiazepines were the most common drugs detected in heroin-probable deaths; each were involved in 24 percent of deaths (*n*=16) of total deaths, followed by cocaine in 18 percent, other opiates in 17 percent, and methamphetamine in 3 percent.

Heroin purity appears to have been generally declining since 1994 when the STRIDE data indicated a median purity of 31 percent pure and a mean purity of 39 percent pure. Preliminary data for 2011 indicate a median purity of 5 percent pure and a mean of 10 percent pure; this was similar to the prior 3 years (exhibit 6). The mean value is shown as consistently higher than the median value; this could be that some heroin samples are much higher purity than the average. For example, in 2011, the maximum purity was 43 percent pure, four times higher than the mean purity. This range in purity, unknown to users, represents a significant risk for drug overdose. Local domestic monitoring program data indicated a similar low mean and median purity for heroin. Of note, a number of cases tested were also positive for another opiate that is biologically active (6-monoacetylmorphine), so the effective purity in terms of total opiate impact is higher than that when just heroin purity is reported.

The total number of primary heroin treatment admissions remained relatively flat from 1999 to 2011 (exhibit 3), although the number of admissions per year is heavily impacted by treatment capacity changes, most notably changes related to methadone maintenance treatment. While the main trend in heroin treatment admissions was an aging cohort in previous years, there appeared to be a young replacement cohort. In 2011, of 1,523 heroin treatment admissions, 582 were age 18–29 and 597 were 40 or older. A separate analysis was conducted to look at first-time admissions to treatment; these analyses used fiscal year data (July–June) as opposed to calendar year data (exhibit 7). Data are for clients who had never entered publicly funded treatment in Washington State and whose primary drug was reported to be heroin. King County total admissions indicated no obvious patterns; however, for clients age 18–29 the number of treatment admissions was much higher in FYs 2009–2011 than in previous years (exhibit 7). State totals indicated a similar pattern, along with a recent and substantial increase in young adult admissions; 820 of 1,295 admissions in FY 2011 were clients age 18–29. These data indicate that there is a substantial increase in young adult treatment admissions in Washington State, and the rate of growth is higher outside of King County. The wait list for opiate substitution treatment increased after a few years of decline (exhibit 8). (See the prescription-type opiates section for a discussion of buprenorphine [Suboxone®] treatment.)

Heroin was mentioned as the drug of concern by 23 percent of Help Line callers, representing the highest proportion for any drug and a higher proportion than in previous years (exhibit 2).

Evidence submitted by law enforcement and analyzed in NFLIS laboratories has increasingly tested positive for heroin in recent years, according to Washington State Patrol Crime Laboratory chemists. In 2011, there were 310 reports for heroin among drug items seized and analyzed in NFLIS laboratories, an increase from 232 and 239 in 2010 and 2009, respectively (exhibit 3). Despite rumors on the street, to date no single piece of evidence has tested positive for both heroin and fentanyl.

Prescription-Type Opiates

Nonfatal overdoses to which the Seattle Fire Department Medic One responded that involved prescription-type opiates represented 42 percent of total nonfatal cases in 2011, of which 6 percent also involved heroin (opiate type was not documented in 15 percent of cases). On average, those involved in these cases were older than those in heroin-involved cases, with a median age of 41 and a mean age of 43. Most, 63 percent, were male. Other drugs of abuse were explicitly noted in 44 percent of cases. Naloxone (an opiate antidote) was administered by paramedics in 42 percent of these cases (exhibit 5).

Deaths involving prescription-type opiates declined for the second year in a row, to 120 deaths in 2011, down from a peak of 161 in 2009 (exhibit 1). Deaths were down for all age groups, although decedents older than 50 continued to represent the largest age group. In 2011, benzodiazepines were the most common drug detected concurrent with prescription-type opiates; benzodiazepines were present in 42 percent of deaths involving prescription-type opiates. Alcohol was present in 18 percent, followed by cocaine in 15 percent, heroin-probable in 9 percent, and methamphetamine in 4 percent. Callers to the Help Line indicated prescription-type opiates were an issue in 16 percent of calls; this was a much lower proportion than in recent years (exhibit 2).

Treatment admissions for primary prescription-type opiate abuse declined in 2011 for the first time, after many years of substantial increases (exhibit 3). Young adults constituted the largest age group for treatment admissions for a primary prescription-type opioid problem; 273 of 554 total admissions were age 18–29; the majority of admissions were female, in contrast to all other drug categories. Treatment data for buprenorphine (Suboxone®) are severely limited because most treatment is not paid for with public funds. Therefore, information on the majority (estimated to be at least 90 percent) of people using this form of medication-assisted treatment are not tracked by State data systems. However, limited aggregated data from the newly implemented prescription drug monitoring program can be obtained. To determine the scale of treatment admissions, the number of unique persons on buprenorphine during March 2012 was obtained for clients age 18–29; there were 2,189 clients. The opioids of choice were unknown (heroin and/or pharmaceuticals) and it was unknown whether they were injection drug users (IDUs).

Positive reports for prescription-type opiates among drug items seized by law enforcement and analyzed in NFLIS laboratories appeared to decline somewhat in 2011, with a total of 224 reports, down from 292 in 2009. Oxycodone was the most common type of opioid detected. According to a crime laboratory chemist, the Washington State Patrol Crime Laboratory is identifying both old and new forms of OxyContin® (oxycodone is the generic drug reported to NFLIS). In April 2012, police arrested two men in Seattle and found large quantities of fentanyl powder, along with other drugs, cash, and weapons.

Methamphetamine

Deaths involving methamphetamine totaled 20 in 2011, a similar level since 2002. Methamphetamine-involved deaths were relatively evenly spread across age groups, with no notable trends over time. Methamphetamine was usually the only drug involved in these deaths, compared with other substances, which more often had coingestents identified. Other drugs most commonly identified in methamphetamine-involved deaths included prescription-type opiates in 25 percent of deaths,

benzodiazepines in 15 percent, alcohol and heroin-probable each in 10 percent of cases, and none with cocaine.

The number of admissions to treatment for a primary methamphetamine problem has held steady during the past 3 years, at approximately 800 per year, a number somewhat lower than the peak of approximately 1,000 per year from 2005 to 2008 (exhibit 3). The ages of methamphetamine users entering treatment were fairly well spread across the age span, with approximately equal numbers age 18–29, age 30–39, and 40 and older. Methamphetamine treatment admissions were much younger than cocaine users.

Methamphetamine represented the drug of concern for 14 percent of Help Line callers, a proportion that was somewhat higher than in previous years (exhibit 2). Methamphetamine has been the second most commonly detected drug among items seized by law enforcement from King County and analyzed in NFLIS laboratories over the past 3 years (exhibit 4).

Marijuana

Treatment admissions for marijuana declined slightly in 2011, to 1,944 primary admissions, compared with the peak of 2,183 in 2009. In 2011, almost one-half of primary marijuana admissions were younger than 18. Three-quarters of admissions were male; this represented a far larger proportion than for any other substance.

The NW HIDTA Threat Assessment reported that large indoor grow operations for marijuana persisted in western Washington, and outdoor grow operations were prevalent in eastern Washington. Marijuana reports among drug items submitted by law enforcement for testing in NFLIS laboratories declined steeply from the 927 reports in 2009 to 224 in 2010 and 272 in 2011 (exhibit 4). Marijuana was mentioned by 16 percent of Help Line callers, a proportion that was similar to previous years (exhibit 3).

Other Drugs of Abuse

Among Help Line callers there were low levels of calls for other drugs. These included 21 calls (2 percent) for synthetic stimulants such as substituted cathinones and 5 calls (0.4 percent) for cannabinoid homologs (cannabimimetics). Synthetic (substituted) cathinones, colloquially called “bath salts,” were detected in six reports among drug items seized and analyzed by NFLIS in 2011; they were not reported previously (which may be due to prior testing limitations). Cannabinoid homologs (cannabimimetics) such as Spice or K2 were detected in 15 reports among items analyzed by NFLIS laboratories in 2011. Other quantifiable data on these compounds were difficult to obtain.

Less than 1 percent of treatment admissions from 1999 to 2011 were for prescription-type sedatives. There have been slow, steady increases in these admissions, but the absolute numbers were small. Such drugs are more likely secondary or tertiary drugs of abuse, and they are often used in combination with other drugs. Benzodiazepines were identified in 65 reports among drug items seized by law enforcement and analyzed in NFLIS laboratories in 2011, a proportion that was similar to previous years.

PCP (phencyclidine) was uncommon as a primary drug of abuse at treatment entry, with just 33 admissions in 2011, similar to the prior 3 years and up somewhat from earlier years. The 19 PCP reports among drug items seized by law enforcement and analyzed in NFLIS laboratories in 2011 were similar to previous years.

No drug-caused deaths were found to involve MDMA (3,4-methylenedioxymethamphetaine) in 2011, after two such deaths were reported in 2010. MDMA was identified in 82 reports among seized drug items analyzed in NFLIS laboratories in 2011, similar to prior years. Two compounds, BZP (1-benzylpiperazine) and TFMPP (1-3-(trifluoromethylphenyl)piperazine), are often found in tablets sold as MDMA, that actually seldom contain MDMA. The presence of both of these compounds in law enforcement evidence has declined over the past 3 years, a trend that runs parallel to Canadian regulatory changes restricting access to these compounds.

INFECTIOUS DISEASES RELATED TO DRUG USE

HIV

For the period 2009–2011, together the categories of IDUs and men who have sex with men/IDUs accounted for 12 percent of new HIV infections. There were no significant changes for either category for the period 2003–2011 (exhibit 9). Utilization of the syringe exchange was extremely high, with more than 4,000,000 syringes distributed in 2011 (exhibit 10).

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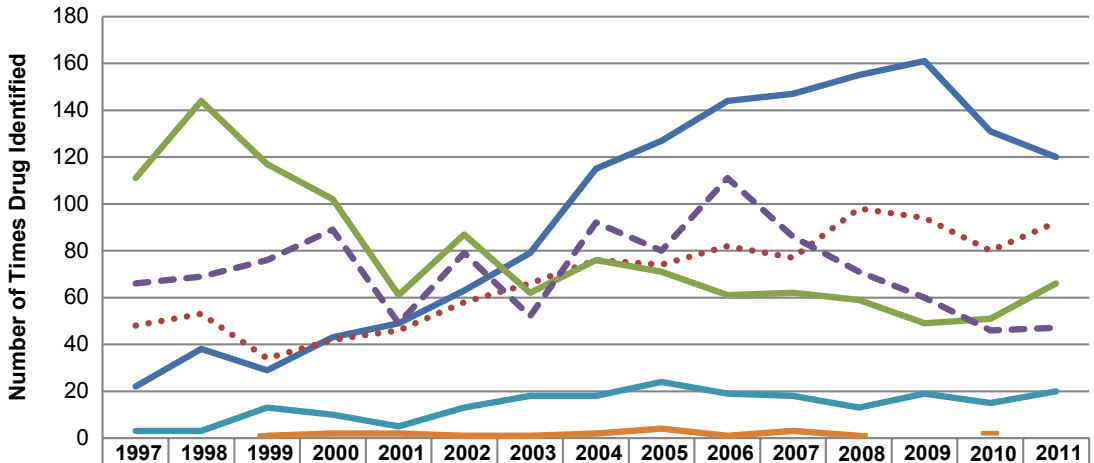
Exhibit 1. Number of Drug-Involved Deaths in King County (Seattle): 1997–2001



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Prescription-type Opiate	22	38	29	43	49	63	79	115	127	144	147	155	161	131	120
Rx Sedative[1]	48	53	34	42	46	58	66	76	74	82	77	98	94	80	92
Heroin likely	111	144	117	102	61	87	62	76	71	61	62	59	49	51	66
Cocaine	66	69	76	89	49	79	52	92	80	111	86	71	60	46	47
Methamphetamine	3	3	13	10	5	13	18	18	24	19	18	13	19	15	20
MDMA	–	–	1	2	2	1	1	2	4	1	3	1	–	2	–

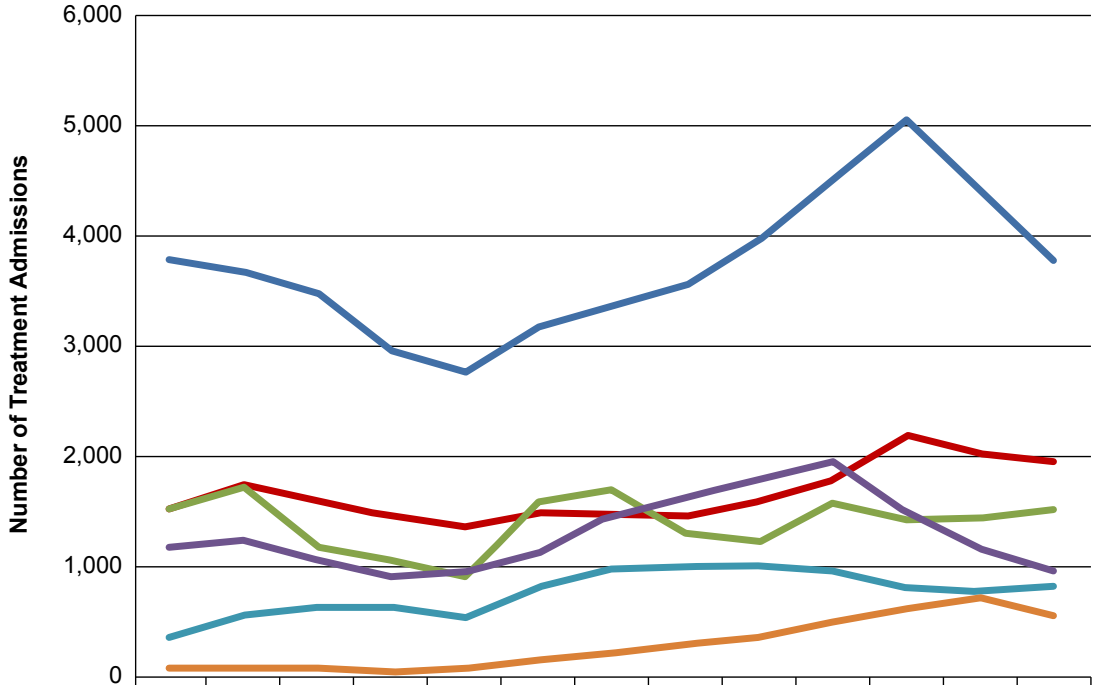
[1]Benzodiazepines, barbiturates, tricyclic antidepressants, muscle relaxants, and GHB (gamma hydroxybutyrate).
SOURCE: Public Health - Seattle & King County, King County Medical Examiner

Exhibit 2. Number of Calls to the Help Line in King County (Seattle): Second Half of 2011

Drugs	Second Half 2011	
	TOTAL	Percentage of Drugs
Heroin	277	23
Prescription (Rx) Pain Pills	197	16
Marijuana	195	16
Methamphetamine	174	14
Other Rx	157	13
Cocaine	151	12
Substituted Cathinones (Synthetic Stimulants, e.g., "Bath Salts")	21	2
Antidepressants	17	1
Over-the-Counter	15	1
Inhalants	9	1
Cannabimimetics (e.g., K2, Spice)	5	0
TOTAL	**1,218**	**100**

SOURCE: Washington Recovery Help Line, King County, and Crisis Clinic

Exhibit 3. Number of Publicly Funded Treatment Admissions, All Modalities, Duplicated, by Primary Drug, in King County: 1999–2011



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Alcohol	3,790	3,667	3,454	2,943	2,744	3,169	3,379	3,559	3,947	4,477	5,062	4,412	3,761
Marijuana	1,507	1,733	1,584	1,447	1,359	1,473	1,455	1,463	1,573	1,788	2,183	2,005	1,944
Heroin	1,510	1,725	1,174	1,056	895	1,569	1,684	1,299	1,220	1,573	1,416	1,434	1,523
Cocaine	1,170	1,238	1,053	907	931	1,133	1,472	1,627	1,787	1,957	1,459	1,156	934
Methamphetamine	355	550	625	614	550	811	989	994	996	957	804	770	816
Other Opiates	72	58	80	52	81	150	208	286	337	483	617	720	554

SOURCE: Washington Division of Behavioral Health and Recovery

Exhibit 4: Number of Reports Among Items Seized by Law Enforcement and Analyzed in NFLIS Laboratories in King County (Seattle): 2009–2011

Drug Reports	2009	2010	2011	Category
Cocaine	644	429	405	
Methamphetamine	332	261	325	
Heroin	239	232	310	
Marijuana/Cannabis	927	224	272	
MDMA (3,4-Methylenedioxy-methamphetamine)	81	57	82	
PCP (Phencyclidine)	24	19	19	
Psilocybine (Psychedelic Mushrooms)	3	5	15	
Psilocin (Psychedelic Mushrooms)	16	9	7	
BZP (1-Benzylpiperazine)	62	15	15	Sold as MDMA
TFMPP (1-3-(Trifluoromethylphenyl) piperazine)	27	6	7	Sold as MDMA
Alprazolam	26	28	30	Benzodiazepine
Clonazepam	16	13	17	Benzodiazepine
Diazepam	8	5	10	Benzodiazepine
Lorazepam		4	8	Benzodiazepine
Synthetic Cannabinoid			8	Cannabimimetic
AM-2201			4	Cannabimimetic
JWH-018			1	Cannabimimetic
JWH-122			1	Cannabimimetic
JWH-250			1	Cannabimimetic
Oxycodone	184	149	114	Prescription Opiate
Methadone	23	11	28	Prescription Opiate
Hydrocodone	32	30	27	Prescription Opiate
Buprenorphine	39	33	25	Prescription Opiate
Fentanyl		8	10	Prescription Opiate
Hydromorphone		2	7	Prescription Opiate
Morphine	7	8	7	Prescription Opiate
Codeine	6	4	3	Prescription Opiate
Oxymorphone	1		3	Prescription Opiate
Testosterone	1		2	Steroid
Mesterolone	1			Steroid
Methandrostenolone (Methandienone)	1			Steroid
Oxymetholone		1		Steroid
Stanozolol	1			steroid
Methylone			4	Substituted Cathinone
MDPV (3,4-Methylenedioxypyrovalerone)			2	Substituted Cathinone
Other	421	171	209	
TOTAL (Excluding "unknown")	**3,122**	**1,724**	**1,978**	

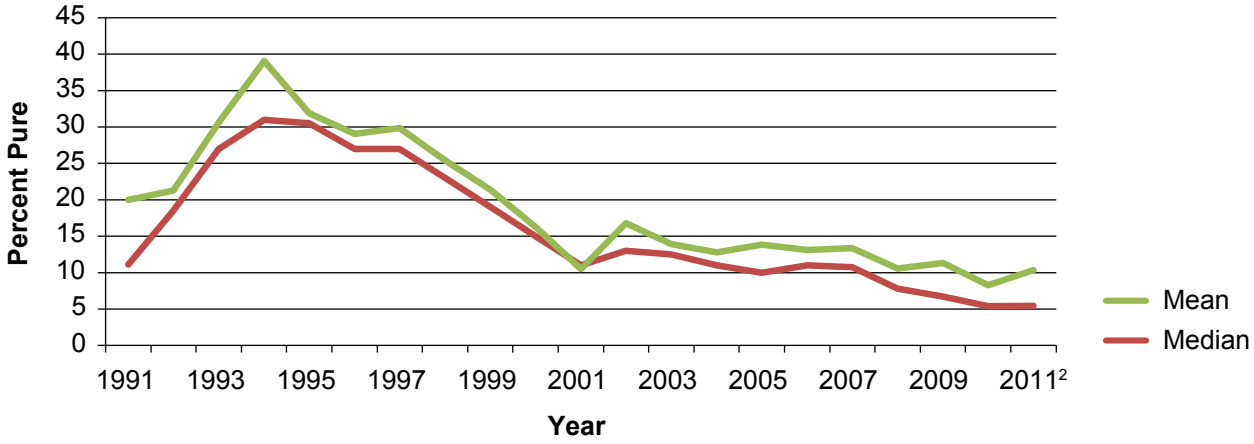
SOURCE: NFLIS, DEA

Exhibit 5. Serious Opiate Overdoses in Sample of Cases[1] in Seattle: 2011

Serious Opiate Overdoses (*N*=268)[2]			
	n	**Mean**	**Median**
Age	258	41.1	40 (range 18–90)
	n	**Number**	**Percentage**
Gender	**267**		
Male		194	72.7
Female		73	27.2
Type of opiate involved	**268**		
Not documented		40	14.9
Heroin only		100	37.3
Rx opiates only		112	41.8
Heroin + Rx opiates		16	6.0
Other abuse-able drug involved[3]	**268**		
Suspected/med list/history		110	41.0
Not documented		158	59.0
Narcan® administered (paramedic)	**267**		
Yes		145	54.3
No		122	45.7
Narcan® administered (bystander)	**268**		
Yes		2	0.7
Not documented		264	98.5

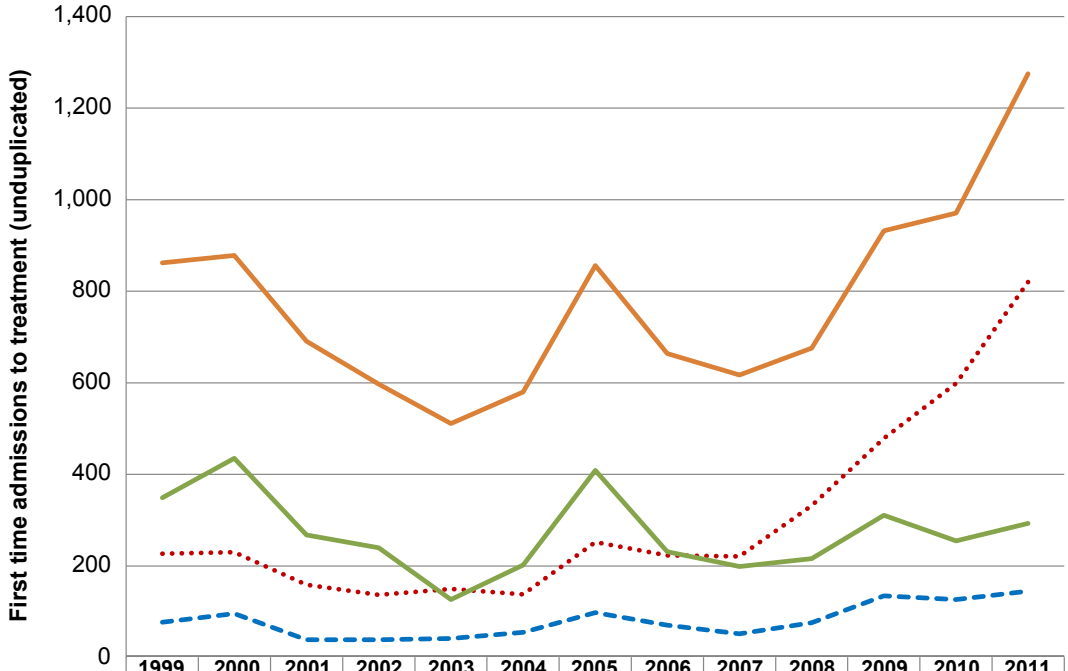
[1]Cases pulled for February, April, June, August, October, and December 2011.
[2]Incident reports initially screened by Medic One staff, subsequently screened for opioid involvement and abstracted by University of Washington staff.
[3]One or more of the following is involved: alcohol, cocaine, amphetamine, benzodiazepine, or muscle relaxant.
SOURCE: Seattle Medic One

Exhibit 6. Percent of Heroin[1] Purity in Washington: 1991–2011[2]



[1]Heroin tested by the DEA and reported in the STRIDE system for evidence seized in Washington State.
[2]Data for 2011 are preliminary.
SOURCE: STRIDE

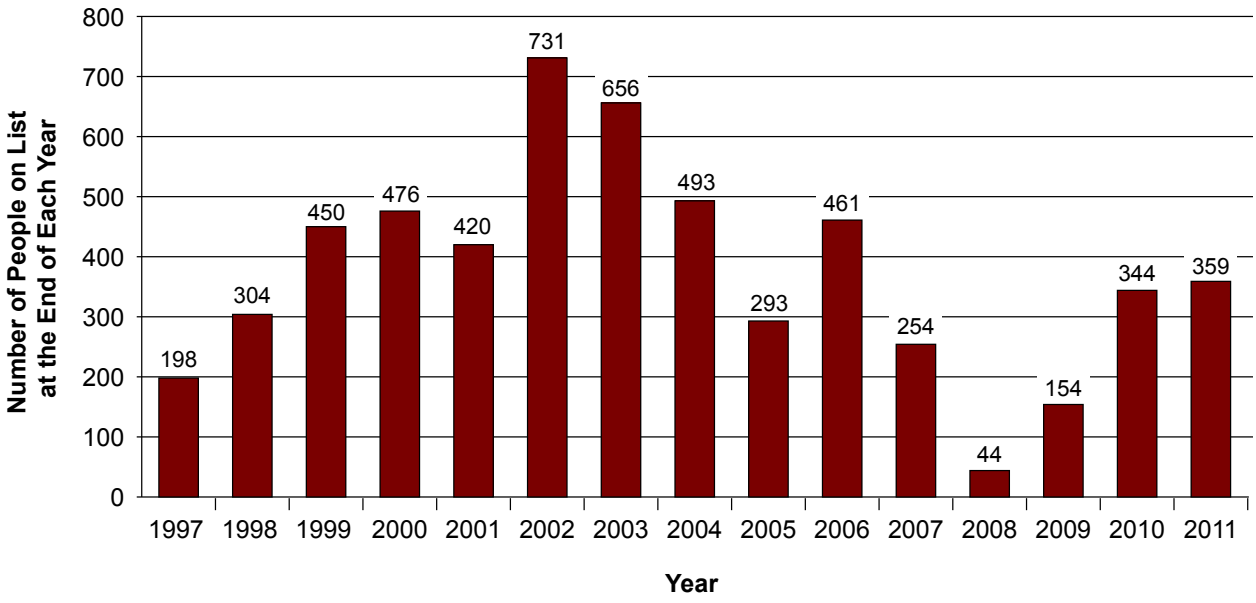
Exhibit 7. Number of Publicly Funded Treatment Admissions for a Primary Heroin Problem Among First-Time Admissions for Any Drug, All Modalities of Care, in King County and Washington State: FYs[1] 1999–2011



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
WA State Total	862	878	691	597	511	580	856	664	617	676	932	971	1,275
WA State Age 18–29	227	230	159	137	150	138	252	223	221	332	479	599	820
King County Total	349	435	268	240	127	202	409	231	199	216	311	255	293
King County Age 18–29	77	96	39	39	42	55	98	71	52	76	135	127	145

[1]July 1–June 30.
SOURCE: Washington Division of Behavioral Health and Recovery

Exhibit 8: Number of People on Opiate Substitution Wait List in Washington: 1997–2011



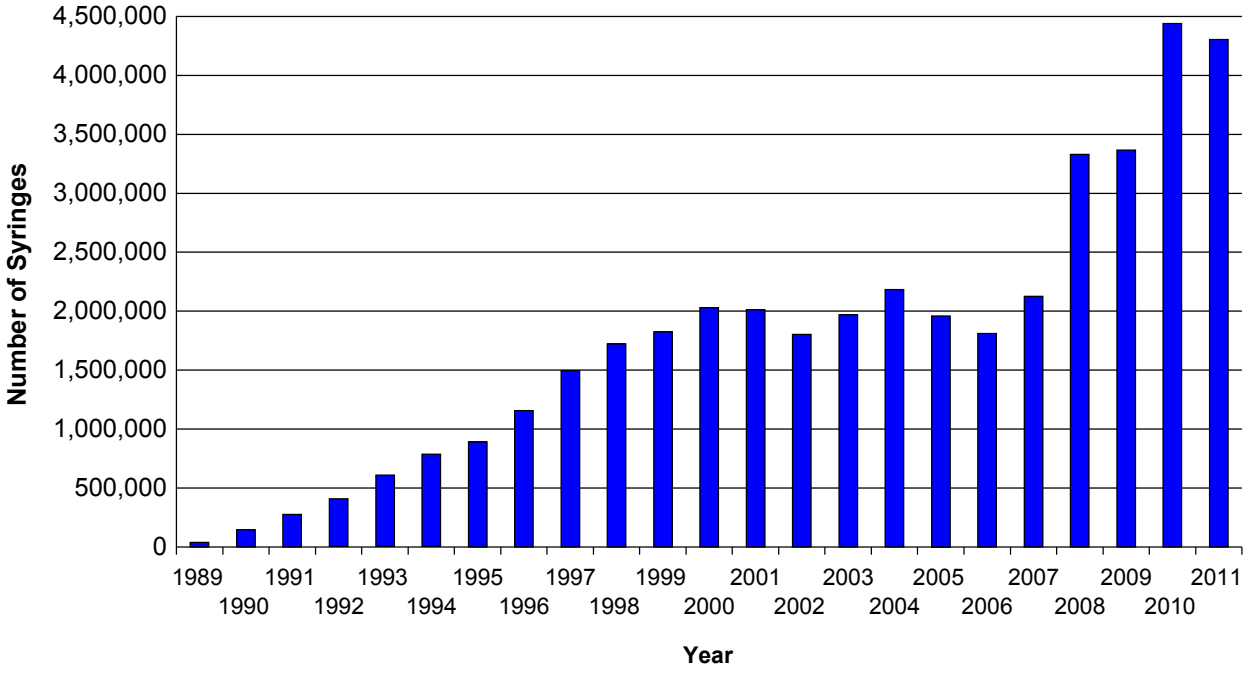
SOURCE: Public Health - Seattle & King County

Exhibit 9: Demographic Characteristics of Residents Diagnosed with HIV in 1982–2010 in King County, by Date of Diagnosis: Reported through December 31, 2011

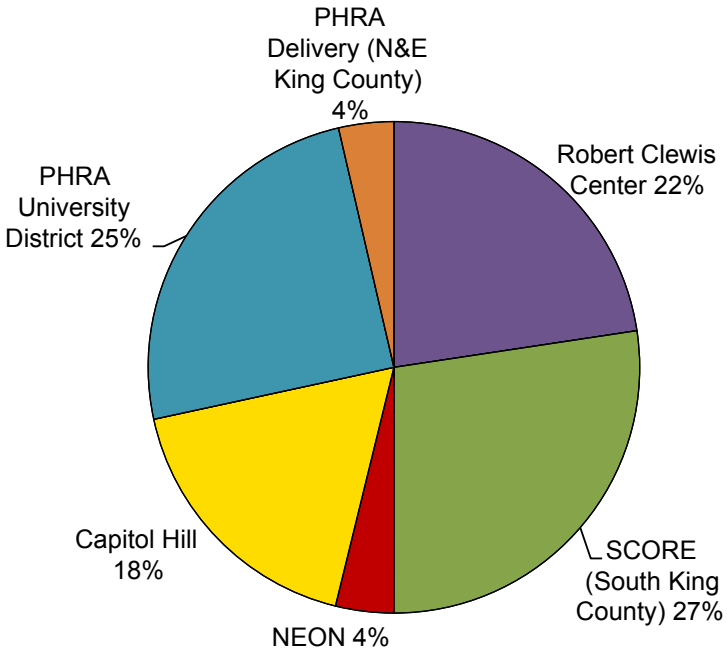
	1982–2002		2003–2005		2006–2008		2009–2011		Trend 2003–2011
	Number	%	Number	%	Number	%	Number	%	
TOTAL	**8,773**	**100%**	**1,012**	**100%**	**951**	**100%**	**882**	**100%**	
HIV Exposure Category									
Men who have sex with men (MSM)	6,424	76	641	70	589	73	603	78	Up
Injection Drug User (IDU)	509	6	53	6	39	5	31	4	
MSM/IDU	906	11	80	9	75	9	62	8	
Heterosexual Contact	524	6	135	15	104	13	70	9	Down
Blood Product Exposure	96	1	2	0	1	0	0	0	
Perinatal Exposure	27	0	0	0	3	0	8	1	
SUBTOTAL- Known Risk	8,486	100	911	100	811	100	774	100	
Undetermined/Other	287	3	101	10	140	15	108	12	N/A
Sex & Race/Ethnicity									
Male	8,164	93	895	88	828	87	779	88	
White Male	6,440	73	564	56	501	53	492	56	
Black Male	836	10	155	15	117	12	102	12	Down
Hispanic Male	564	6	111	11	128	13	125	14	Up
Other Male	324	4	65	6	82	9	60	7	
Female	609	7	117	12	133	14	103	12	
White Female	271	3	28	3	48	5	31	4	
Black Female	233	3	70	7	66	7	56	6	
Hispanic Female	42	0	10	1	7	1	7	1	
Other Female	63	1	9	1	12	1	9	1	
Place of Birth									
Born in United States or Territories	7,807	91	757	77	670	74	643	76	Down
Born Outside United States	744	9	225	23	238	26	205	24	Up
SUBTOTAL- Known Birthplace	8,551	100	982	100	908	100	848	100	
Birthplace Unknown	222	3	30	3	43	5	34	4	N/A
Age at diagnosis of HIV									
0–19	149	2	8	1	21	2	26	3	Up
20–29	2,278	26	206	20	257	27	250	28	Up
30–39	3,944	45	428	42	317	33	264	30	Down
40–49	1,807	21	283	28	229	24	209	24	Down
50–59	487	6	73	7	93	10	108	12	Up
60 and Older	108	1	14	1	34	4	25	3	Up
Residence									
Seattle Residence	7,497	85	754	75	691	73	629	71	Down
King County Residence Outside Seattle	1,276	15	258	25	260	27	253	29	Up

SOURCE: Public Health - Seattle & King County

Exhibit 10: Number of Syringes Distributed, and Syringe Volume by Site, in King County: 1989–2011



Percentage of Syringe Volume by Site: 2011



Notes: PHRA=People's Harm Reduction Alliance; NEON=Needle Exchange and Sex Education Outreach Network.
SOURCE: Public Health - Seattle & King County

Substance Abuse Trends in Texas: June 2012

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ABSTRACT

This report updates indicators of drug abuse in Texas since the June 2011 report and describes trends by calendar year from 1987 to the first quarter of 2012. Important changes included increases in heroin use by a younger population. This was first noticed with the "cheese heroin" situation in Dallas, but heroin admissions of young clients have continued to increase statewide. The proportion of clients in their twenties has increased from 35 percent of all heroin admissions in 2005 to 45 percent in 2011. Availability and seizures of heroin have increased, and prices are lower. The primary types of heroin in Texas are Mexican black tar and powdered brown. Cocaine indicators have decreased over time, but the Drug Enforcement Administration (DEA) Field Divisions reported availability was higher than in the past. There is no explanation for these changes other than the possible influence of trafficking wars in Mexico; the demand for cocaine in Europe; production being down in the Andes; and the addition of levamisole, which could dilute the cocaine purity. The methamphetamine market has changed, with local "cooks" using over-the-counter pseudoephedrine with the "one pot" or "shake and bake" method to produce small amounts declining. In first quarter of 2012, 89 percent of the methamphetamine examined was produced in Mexico using the P2P (phenyl-2-propanone) method with a potency of 83 percent and a purity of 95 percent, based on samples analyzed by DEA's Methamphetamine Profiling Program. Only 8 percent of the samples were from the pseudoephedrine method. The pain pill problem continued to increase in Texas. Indicators for hydrocodone were 10 times greater than for oxycodone. Cannabis (marijuana) availability was reported to be high and stable, with domestic, Mexican, hydroponic, and BC Bud available, according to the DEA Field Divisions. Cannabis homologs (cannabimimetic agents) are a growing problem, with 504 human exposure calls to the Texas Poison Center Network in 2010, 587 in 2011, and 183 through April 2012. Alprazolam was the primary benzodiazepine that was misused, based on treatment admission and toxicology laboratory data. Ecstasy indicators have varied over time, with no clear pattern of change except the spread from the rave scene to the street. BZP (1-benzylpiperazine) and TFMPP (1-(3-trifluoromethylphenyl)piperazine) indicators have decreased. Based on the school survey and poison control data, dextromethorphan continued as a problem among young teenagers. GHB (gamma hydroxybutyrate) levels remained relatively low, but the drug was again being mentioned in drug-facilitated sexual assault cases, although no toxicology tests have been run on the cases. Ketamine indicators were lower in 2011 than in past years, as were indicators for LSD (lysergic acid diethylamide) and other hallucinogens. Synthetic (substituted) cathinone exposure calls to the Texas Poison Center Network increased from 22 in 2010 to 340 in 2011, with 76 through May 2012. PCP (phencyclidine) indicators varied, and exposures to inhalants continued, but with more calls for misuse of

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air fresheners or dusting sprays than for exposure to automotive products, spray paint, or gases. Patterns of drug abuse varied between border and nonborder treatment admissions. Border clients were more likely to report problems with cocaine and cannabis, while non-border clients reported more methamphetamine use; heroin use was similar between the regions. Patterns of drug use as measured by toxicology exhibits varied along the border, with cannabis and cocaine being the primary drugs identified in El Paso, as compared with cannabis and cocaine in Laredo and McAllen. The case rates for syphilis, chlamydia, and gonorrhea showed STD (sexually transmitted disease) rates much higher for young females. The majority of AIDS (acquired immunodeficiency syndrome) cases continued to be among people of color. The proportion of cases due to injection drug use continued to decrease, but the proportion of cases of men who have sex with men increased.

INTRODUCTION

Area Description

The population of Texas in 2010 was 25,145,561, with 45 percent White, 11 percent Black, 38 percent Hispanic, and 5 percent "Other." Illicit drugs continued 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

This report updates the June 2011 CEWG report. To compare the June 2012 report with earlier periods, please access *http://www.utexas.edu/research/cswr/gcattc/drugtrends.html*.

Data for this report include the following sources:

- **Student substance use data** for 2010 came from reports on the Texas School Survey of Substance Abuse: Grades 7–12, 2010, and the Texas School Survey of Substance Abuse: Grades 4–6, 2010, which were authored by L.Y. Liu and published by the Department of State Health Services (DSHS). For 2011, the data for high school students in grades 9–12 came from the Youth Risk Behavior Surveillance Survey (YRBSS)—United States, 2011, MMWR Surveillance System, downloaded June 8, 2012 at: *http://apps.nccd.cdc.gov/youthonline/App/Results.aspx?TT=G&OUT=0&SID=HS&QID=QQ&LID=TX&YID=2009&LID2=XX&YID2=2009&COL=&ROW1=&ROW2=&HT=QQ&LCT=&FS=1&FR=1&FG=1&FSL=&FRL=&FGL=&PV=&C1=TX2009&C2=XX2009-&QP=G&DP=1&VA=CI&CS=N&SYID=&EYID=&SC=DEFAULT&SO=ASC&pf=1&TST=True*.

- **Data on drug use by Texans age 12 and older** came from the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Surveys on Drug Use and Health (NSDUH). The statewide estimates are from the 2002–2003 and 2008–2009 NSDUH.

- **Poison control center data** came from the Texas Poison Center Network, DSHS, for 1998–2011 with updates on cannabis homologs and synthetic cathinones through April 30, 2012. Analysis was provided by Mathias Forrester, epidemiologist with the Texas Poison Center Network, who

distributes monthly updates on "Mephedrone and Methylenedioxypyrovalerone ("bath salts") Reported to the Texas Poison Center Network" and "Marijuana Homologs Reported to the Texas Poison Center Network." Forrester is also the author of "Temporal and Geographic Patterns in Opioid Abuse in Texas," *Journal of Addictive Disease,* 31:83-99, 2012.

- **Treatment data** were provided by DSHS's data system on clients admitted to treatment in DSHS-funded facilities from January 1, 1987–December 31, 2011. Analysis of the 2011 data was by Lesli San Jose of the DSHS Decision Support Program and by the author. The DSHS treatment data changed beginning with calendar year 2010 with the addition of specific drug categories and with race and ethnicity variables reported separately. The 2011 data were downloaded on May 7, 2012, and the file may not be complete due to additional records being submitted later.

- **Information on methamphetamine use** came from interviews with recent users entering treatment, an ongoing study by the author (NIDA R21 DA025029).

- **Information on cheese heroin** came from Jane Carlisle Maxwell, John J. Coleman, Sing-Yi Feng, Collin S. Goto, Carlos F. Tirado, "Cheese: An Old Drug in a New Wrapper," *Drug and Alcohol Dependence,* in press, 2012.

- **Information on drug-involved deaths** through 2010 came from the Bureau of Vital Statistics, DSHS; analysis was by the author. The information on cocaine, heroin, methadone, other opiates, synthetic narcotics, benzodiazepines, and psychostimulants for 1999–2010 came from multiple cause data tapes provided by DSHS on March 7, 2012. The data through 2010 are preliminary, and the more complete dataset will be available later in 2012.

- **Information on drugs identified by laboratory tests** was from toxicology laboratories in Texas which reported results from analyses of substances for 1998–2011 to the National Forensic Laboratory Information System (NFLIS) of the Drug Enforcement Administration (DEA). Analysis was by the author on data downloaded from NFLIS on May 15, 2012. 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. The 2009 and 2011 data are not complete due to missing data from some reporting units.

- **Price, trafficking, distribution, and supply information** was gathered from the July–December 2011 reports on Trends in the Traffic Report System from the Dallas, El Paso, and Houston Field Divisions (FDs) of the DEA.

- **Purity data** were provided by the DEA. National methamphetamine purity data came from the DEA's Methamphetamine Monitoring Project (MPP) and Texas heroin purity data came from the DEA Domestic Monitor Program (DMP).

- **Reports by users and street outreach workers** on drug trends for the first quarter of calendar year 2012 were reported to DSHS by workers at local human immunodeficiency virus (HIV) counseling and testing programs across the State.

- **Sexually transmitted disease (STD) and acquired immunodeficiency syndrome (AIDS) data** were provided by DSHS. The STD data are through 2011, and the AIDS data are for the first half of 2011.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine indicators have decreased in recent years (exhibit 1). There is no explanation for changes other than the possible influence of trafficking wars in Mexico; the demand for cocaine in Europe; production declines in the Andes; and the addition of levamisole, which could dilute cocaine purity.

The Texas School Survey of Substance Abuse: Grades 7–12, 2010, reported that lifetime use of powder and crack cocaine had dropped from a high of 9 percent in 1998 to 5 percent in 2010, while past-month use dropped from 4 percent in 1998 to 2 percent in 2010. Five percent of students in nonborder counties in Texas had ever used powder or crack/cocaine, and 2 percent had used it in the past month. In comparison, students in schools on the Texas border reported higher levels of cocaine use: 8 percent lifetime use and 4 percent past-month use. In 2002–2003, the NSDUH reported that 2.4 percent of the Texas population age 12 and older had used cocaine in the past year, below the national proportion of 2.5 percent. In 2008–2009, 1.9 percent in Texas had used cocaine, below the national proportion of 2.0 percent.

Texas Poison Center Network calls involving the use of cocaine increased from 497 in 1998 to 1,363 in 2007 and then decreased to 712 in 2011 (exhibit 1). Seventy-five percent of the cocaine cases in 2011 were male, and the average age was 33.

Cocaine (both crack and powder) represented 14 percent of all admissions to DSHS-funded treatment programs in 2011; this was a decrease from 35 percent in 1995. Among all cocaine admissions, cocaine inhalers were the youngest and most likely to be Hispanic (exhibit 2). Cocaine injectors were older than inhalers but younger than crack smokers, and they were the most likely to be White. Crack smokers were more likely to be Black and more likely to be involved in the criminal justice system. The term “lag” refers to the period from first consistent or regular use of a drug to the date of admission to treatment. Powder cocaine inhalers averaged 11 years between first regular use and entrance to treatment, while injectors averaged 17 years of use before they entered treatment.

Exhibit 3 shows the changes in treatment admissions clients between 1993 and 2011 by route of administration and race/ethnicity. The proportion of Blacks among crack cocaine admissions has decreased and the proportions of Whites and Hispanics increased.

Exhibit 1 shows that the proportion of drug items identified as cocaine by the toxicology laboratories has decreased. In 1998, cocaine accounted for 40 percent of all items examined, compared with 18 percent in 2011. The DEA laboratory has been finding levamisole (phenyltetrahydroimidazothiazole, or “PIT”) in cocaine exhibits for a number of years, and the decrease in purity may reflect increased use of PIT as filler to increase the volume of the drug. There were 1,339 samples (1 percent of all items reviewed) that were PIT in 2011, according to the toxicology laboratories in Texas.

The Dallas DEA FD reported an increase in cocaine loads from Mexico being routed directly to the Dallas area for distribution to the Midwest and eastern United States. Powder cocaine availability was reported as high and stable, with crack cocaine being reported as moderately available. Retail distribution in the area was by Mexican drug trafficking organizations and Black and Hispanic street gangs.

The El Paso DEA FD reported that cocaine was readily available in El Paso. The shortages of 2008 and 2009 had diminished, and the supply was now stable. The Houston DEA FD reported the availability of powder and crack cocaine was high and stable in 2011. Cocaine seizures have decreased, accompanied by an increasing flow of cannabis through the division. The price of cocaine has widened (exhibit 4). An ounce of powder cocaine in 2011 cost $350−$1,600 in Dallas, $400–$1,000 in El Paso, and $350–$1,000 in Austin. Across the State, a rock of crack cost $10–$100 in 2011.

Alcohol

Alcohol is the primary drug of abuse in Texas. In 2010, 62 percent of Texas secondary school students (grades 7–12) had ever used alcohol, and 29 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. Among students in grades 4–6 in 2010, 22 percent had ever drunk alcohol, and 14 percent had drunk alcohol in the past school year. Eleven percent of fourth graders had used alcohol in the school year, compared with 19 percent of sixth graders.

The 2011 YRBS reported that 73 percent of Texas high school students in grades 9–12 had ever drunk alcohol; 40 percent had drunk alcohol in the past month; and 24 percent had drunk five or more drinks in a row in the last month. In comparison, in 2001, 81 percent had ever drunk alcohol; 49 percent had used alcohol in the last month; and 31 percent had drunk five or more drinks at a time. In 2011, 22 percent of high school females and 25 percent of high school males reported binge drinking.

The 2002–2003 NSDUH estimated that 47 percent of all Texans age 12 and older had drunk alcohol in the past month (compared with 50.5 percent nationally); in 2008–2009, 48.5 percent of Texans and 51.8 percent nationally had drunk alcohol in the past month. In 2008–2009, 24.4 percent of Texans had drunk five or more drinks on at least 1 day (binge drinking) in the past month, compared with the national average of 23.5 percent. In 2008–2009 among underage Texas drinkers (age 12–20), 26.5 percent reported past-month alcohol use, compared with 26.8 percent nationally, and 17.6 percent of Texas underage youths reported past-month binge drinking, compared with 17.7 percent nationally. Almost 7 percent of Texans age 12 and older were found to be alcohol dependent or abusers in the past year, compared with 7.4 percent of the U.S. population.

In 2011, 29 percent of all clients admitted to publicly funded treatment programs had a primary problem with alcohol. The characteristics of alcohol admissions have changed over the years. In 1988, 82 percent of the clients were male, compared with 68 percent in 2011. The average age increased from 33 to 39 years. During this time, alcohol clients were becoming more likely to be polydrug users: the proportion reporting no secondary drug problem dropped from 67 to 51 percent; the most common secondary drugs were cocaine (18 percent) and cannabis (17 percent).

Heroin

Heroin indicators remained varied (exhibit 5), but there were indications of growing heroin problems among teenagers and young adults in 2011. This was first noticed with the “cheese heroin” situation in Dallas in the mid-2000s, but heroin use indicators by youth were increasing statewide. The primary types of heroin in Texas were Mexican black tar and powdered brown.

The proportion of Texas secondary students reporting lifetime use of heroin dropped from 2.4 percent in 1998 to 1.4 percent in 2010. The 2011 YRBS found 3.3 percent of Texas high school students reported having ever used heroin, compared with 2.1 percent in 2009, 2.4 percent in 2007, and 3.0 percent in both 2005 and 2001.

Calls to the Texas Poison Center Network involving confirmed exposures to heroin ranged from 181 in 1998 to a high of 296 in 2000, but dropped to 259 in 2011 (exhibit 5).

Heroin was the primary drug of abuse for 13 percent of clients admitted to treatment in 2011 (appendix 1). The characteristics of these users varied by route of administration, as exhibit 6 illustrates. Most heroin addicts entering treatment inject the drug, but the proportion inhaling heroin increased from 4 percent of all heroin admissions in 1996 to 18 percent in 2011. 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.

Of the 2011 heroin admissions, 43 percent reported no second substance problem, and 18 percent reported a problem with cocaine (which shows the tendency to "speedball," or use heroin and cocaine sequentially). Ten percent reported a second problem with cannabis, followed by 9 percent with alcohol and 6 percent with other opiates.

The increase in young clients entering treatment for dependence on heroin was a concern. The proportion of heroin clients in their twenties increased from 35 percent in 2005 to 45 percent in 2011, while the proportion of older admissions decreased correspondingly (exhibit 7). The proportion of teenagers entering treatment remained low, but given the lag between first use and dependence, many of the admissions in their twenties began their heroin use as teenagers. The race/ethnicity of the primary heroin treatment admissions has remained fairly constant over the years (exhibit 8).

"Cheese heroin," a mixture of Tylenol PM® and black tar heroin (heroin combined with diphenhydramine and acetaminophen), continued to be a problem in Dallas, and heroin inhaling was increasing across Texas. Diphenhydramine has traditionally been used as a "cut" to turn tar into inhalable powder (see Maxwell et al. article on cheese heroin).

In 2010, 258 deaths in Texas involved heroin. The decline in average age of the decedents from 40 in 2008 to 35 in 2010 is evidence of the increasing use by young adults (exhibit 9). Of these deaths, 65 percent involved psychostimulants (with or without other drugs); 26 percent also involved cocaine (with or without other drugs); and 12 percent also involved benzodiazepines (with or without other drugs).

Exhibit 5 shows that the proportion of items identified as heroin by toxicology laboratories has remained low, at 1–3 percent over the years. The El Paso DEA FD reported that heroin seizures in the district had increased recently, which could signal an increase in smuggling in the region. Users

cross to Ciudad Juarez to obtain their supply. The Houston FD reported seizures have increased, as has street-level availability. The Dallas FD reported that black tar and Mexican brown heroin were available, as were small amounts of white heroin which become available as wholesale quantities of the white South American heroin transit the area to the northeastern United States.

The predominant form of heroin in Texas is black tar, which has a dark, gummy, oily texture that can be diluted with water and injected. Depending on the location, black tar heroin was sold on the street in 2011 for $5–$20 per paper, balloon, or capsule; $80–$350 per gram; $700–$4,000 per ounce; and $22,000–$80,000 per kilogram.

Mexican brown heroin, which is black tar heroin that has been cut with lactose, diphenhydramine, or another substance and then turned into a powder to inject or inhale, cost $10–$20 per cap in 2011. A gram cost between $40 and $120 in El Paso and $80–$350 in Dallas. An ounce cost $800–$1,000 in El Paso and $1,200–$2,000 in Houston.

There have continued to be anecdotal reports of Southwest Asian heroin being brought back into Texas from troops returning from Afghanistan, with a cost of $400 per gram and $75,000 per kilogram. The Dallas DEA reported that a gram of opium cost between $23 and $50 in 2011.

Exhibit 10 shows the purity and price of heroin purchased by the DEA in four Texas cities under the DMP from 1995 to 2010. Heroin was more pure at the border in El Paso. It decreased in purity but increased in price as it moved north, however, since it was "cut" with other products (such as diphenhydramine or mannitol) as it passed through the chain of dealers.

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 2011 indicators for poison control cases and toxicology laboratory items were 10 times greater for hydrocodone than for oxycodone. This reflects the more stringent controls on oxycodone, which is Schedule II, compared with hydrocodone, which is Schedule III (exhibit 11). Buprenorphine indicators were increasing, although at a lower level than other opioid drugs. The pain pill problem continued to increase with the spread of the "Houston Cocktail" consisting of carisoprodol, alprazolam, and hydrocodone. Two new laws designed to eliminate doctor shopping and prescription fraud became effective September 1, 2011.

Abuse of codeine cough syrup mixed in sweet soft drinks continued; 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.

The 2010 Texas secondary school survey queried about use of other opiates "to get high," and reported that 5 percent had ever used hydrocodone; 12 percent reported ever having consumed codeine cough syrup "to get high;" and 3 percent had ever used oxycodone in that manner. The 2002–2003 NSDUH reported that 4.9 percent of Texans age 12 and older had used pain relievers

nonmedically in the past year (compared with 4.8 percent nationally); in 2008–2009, 4.6 percent of Texans had used these drugs in the past year (compared with 4.8 percent nationally). The 2011 YRBS reported 22 percent of high school students in Texas have ever taken prescription pills without a doctor's prescription.

The Texas Poison Center Network reported there were 676 abuse and misuse cases involving human exposure to hydrocodone and 75 abuse and misuse cases of oxycodone in 2011. Forrester's study of opioid abuse in Texas between 2000 and 2010 found the number of abuse cases for narcotic analgesics increased by 160 percent, with specific increases as follows: hydrocodone, 189 percent; tramadol, 548 percent; oxycodone, 310 percent; hydromorphone, 600 percent; and buprenorphine, 2,100 percent. The proportion for methadone was stable and the proportion for morphine declined.

Eight percent of all clients who entered publicly funded treatment during 2011 had a primary problem with opioids other than heroin, compared with 1 percent in 1995. Appendix I shows users of these various opioids differed in their characteristics. They tended to be White, age 31–35, and other than for oxycodone, were more likely to be female.

Exhibit 11 shows the number of deaths involving methadone, "other opiates," and "other synthetic narcotics." These are the International Classification of Diseases (ICD) categories that are used to show the causes of death, and other than "methadone," they do not provide data on the specific opiate drug involved. In 2011, 190 deaths involved methadone, with 28 percent of these also involving benzodiazepines. There were also 564 deaths involving other opioids, of which 47 percent involved no other drug, and 41 percent also involved benzodiazepines.

The number of exhibits of opioids examined by the toxicology laboratories has increased over time, with some variations between years. Methadone peaked in 2008, while hydrocodone and oxycodone peaked in 2010 (exhibit 11).

In 2011, a hydrocodone pill that cost the pharmacy $0.10 sold for $5–$8 on the street. OxyContin® cost $1 per milligram in Dallas and Houston. A 10-milligram methadone tablet cost $2–$5 in El Paso and $4–$8 in San Antonio. A pint of codeine cough syrup with promethazine cost $300–$900.

Illicit pain management clinics continued to be the primary diversion threat in the Houston area, according to the DEA FD. These clinics are supported by pill crews that recruit "patients," such as homeless persons, to obtain drugs from local doctors, and patients from adjoining States come to Texas to obtain drugs they cannot legally obtain at home. Rogue physicians are writing prescriptions for oxycodone, which is a Schedule II controlled substance, on regular prescription pads rather than the required Schedule II forms, and the prescriptions are then filled by out-of-State pharmacies that are not familiar with the Texas forms. A prescription from a Houston physician for 120 dosage units of oxycodone can sell for $240–$500 out of State. In addition, the Dallas DEA FD identified sibutramine, a Schedule IV controlled substance that is used as an appetite suppressant, in shipments from China.

Practitioners in some of these clinics attempt to avoid detection by writing one prescription with two of the "cocktail" drugs and another noncontrolled medication on one form and then issuing a second prescription with the third cocktail drug and another noncontrolled substance on a second script.

Prescription fraud continued, with faxed-in prescriptions and the use of drive-through pharmacies, which avoid camera detection. There have also been increasing instances of mail courier theft in which pharmaceuticals are intercepted in transit.

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Benzodiazepines

Benzodiazepines include diazepam (Valium®), alprazolam (Xanax®), flunitrazepam (Rohypnol®), clonazepam (Klonopin® or Rivotril®), flurazepam (Dalmane®), lorazepam (Ativan®), and chlordiazepoxide (Librium® and Librax®). Flunitrazepam (Rohypnol®) is discussed separately in the Club Drugs and Emerging Psychoactive Drugs section of this report.

The 2010 Texas secondary school survey reported lifetime use of downers was 6 percent, and past-month use was 2 percent.

Approximately 9 percent of the clients entering DSHS-funded treatment in 2011 reported a primary problem with benzodiazepines. Among these clients with problems with benzodiazepines, 64 percent were female; 81 percent were White; 28 percent were Hispanic; and 16 percent were Black. They were users of multiple drugs. Of the benzodiazepine clients, 29 percent reported a secondary problem with cannabis, 12 percent with alcohol, 16 percent with other opioid drugs, and 10 percent with powder cocaine; 49 percent used their benzodiazepines daily. The number of treatment admissions with problems with alprazolam increased from 581 in 2010 to 992 in 2011.

Exhibit 12 shows the increases in deaths due to benzodiazepines, from 55 in 1999 to 389 in 2011, as well as the dominance of alprazolam as the most abused benzodiazepine. Alprazolam, clonazepam, and diazepam were among the most commonly identified substances, according to the 2011 toxicology laboratory reports, although only alprazolam (in 2007) represented more than 7 percent of all drug items examined in a year (exhibit 12).

In 2011, an alprazolam tablet that cost the pharmacy $0.80 sold for $4–$7 on the street. It is one of the three ingredients (along with hydrocodone and carisoprodol) that form the “Houston Cocktail” or “Holy Trinity.”

Stimulants

Amphetamine-type substances come in different forms and with different names. “Speed” (“meth,” “crank”) is a powdered methamphetamine that is sold in grams or ounces. It can be snorted or injected. “Pills” can be pharmaceutical-grade stimulants, such as dextroamphetamine, Dexedrine®, Adderall®, Concerta®, Vyvanse®, Ritalin® (methylphenidate), or phentermine, or they can be methamphetamine powder that has been pressed into tablets and sold as amphetamines, as “Yaba,” or ecstasy. Stimulant pills can be taken orally, crushed for inhalation, or dissolved in water for injection.

No shortages of methamphetamine have been reported, and indicators were beginning to move upward after the declines following the precursor regulations in 2005–2006 (exhibit 13). Local “cooking” of ice using over-the-counter pseudoephedrine with the “one pot” or “shake and bake” method

continued to be a method for producing small amounts of methamphetamine. As of first quarter 2012, however, only 7 percent of the samples from across the United States examined in the DEA MPP program were produced from the pseudoephedrine method, with 88 percent produced with the P2P (phenyl-2-propanone) method used in Mexico. During this period, the average purity was 94.8 percent, and average potency was 82.9 percent.

The Texas secondary school survey reported that lifetime use of stimulants, or "uppers," was 5 percent, and past-month use was 2 percent in 2010. Three percent of students surveyed responded positively to a separate question regarding lifetime use of methamphetamine, and 1 percent reported past-month methamphetamine use. The 2011 YRBS reported lifetime use of methamphetamine by Texas high school students was 5 percent, compared with 4 percent in 2009 and 7 percent in both 2007 and 2005.

There were 336 calls to the Texas Poison Center Network involving exposure to methamphetamine in 2006, 315 in 2007, 298 in 2008, 190 in 2009, 180 in 2010, and 197 in 2011 (exhibit 13). Of these 2011 methamphetamine exposures, 69 percent were male, and the average age was 29. There were also 288 calls for exposure to pharmaceutical amphetamines or phentermine in 2011. Fifty-eight percent were male, and the average age was 21, 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. They dropped to 8 percent in 2009 and then rose slightly to 9 percent of admissions in 2011. The average age of clients admitted for a primary problem with these stimulants increased from 26 in 1985 to 32 in 2011 (exhibit 14). The proportion of White clients rose from 80 percent in 1995 to 95 percent in 2011. Unlike the other drug categories, more than one-half (59 percent) of the clients entering treatment were female. Clients with a primary problem with methamphetamine reported secondary problems with cannabis (27 percent), alcohol (18 percent), or cocaine (7 percent). Thirty-six percent reported no second substance problem.

Users of methamphetamine tend to differ depending on their route of administration, as exhibit 14 shows. Methamphetamine injectors were more likely to be homeless and not employed full time. Smoking ice peaked in 2007, at 53 percent (exhibit 15). Since the precursor bans, the availability of the different forms of methamphetamine changed; the percentage smoking ice decreased slightly and the proportion injecting increased in 2009. However, in 2011, smoking increased, which is an indication that the supply of ice had increased.

Exhibit 13 shows the number of deaths for psychostimulants, which include methamphetamine and amphetamine. There were 128 in 2006, 114 in 2007, 111 in 2008, 134 in 2009, 157 in 2010, and 167 in 2011. Eleven percent of the deaths also involved cocaine, and another 11 percent involved benzodiazepines. Methamphetamine represented 21 percent of all items analyzed by toxicology laboratories in 2005; the proportion dropped to 13 percent in 2011 (exhibit 13). Amphetamine represented less than 1 percent of the items examined in either year.

The Dallas DEA FD reported methamphetamine availability was high and stable, and seizures of the drug rose 27 percent between 2010 and 2011. The size of the seizures also increased by 42 percent, and there was an upswing in liquid methamphetamine availability. The Houston DEA FD reported availability was high.

The El Paso DEA FD reported an increase in small laboratories which were said to produce a more potent version using pseudoephedrine as compared with methamphetamine made using the P2P recipe. Mexican methamphetamine was being transshipped through the area, while local users relied on small clandestine laboratories in rural areas using "smurfers" to obtain the pseudoephedrine. The laboratory seizures have declined because of the increased availability of the Mexican product.

In 2011, a pound of powder methamphetamine sold for $8,500–$12,500 in Dallas, $7,000–$19,000 in El Paso, and $11,000–$16,000 in Houston. A pound of ice sold for $12,000–$20,000 in Dallas. An ounce of ice sold for $1,200–$1,600 in Dallas, and a gram of ice cost between $50 and $120.

Cannabis (Marijuana)

Cannabis indicators remained mixed, with severity of problems among cannabis treatment admissions notable. Cannabis homologs, or cannabimimetics that mimic delta-9-tetrahydrocannabinol (THC) but with different chemical structures, continued to be a problem.

Cannabis indicators have varied over the years (exhibit 16). In 2011, the YRBS reported that 41 percent of Texas high school students in grades 9–12 had ever smoked cannabis, compared with 37 percent in 2009, 38 percent in 2007, 42 percent in 2005, and 41 percent in 2001. The 2002–2003 NSDUH estimated that 8.6 percent of Texans age 12 and older had used cannabis in the past year (compared with 10.8 percent nationally); in 2008–2009, 8.3 percent reported past-year use, compared with 10.8 percent nationally.

The Texas Poison Center Network reported 133 calls of exposure to cannabis in 1998, compared with 550 calls in 2011 (exhibit 16). Cannabis was identified in approximately 30 percent of all the exhibits analyzed by toxicology laboratories in 2010 and in 2011 (exhibit 16).

Cannabis was the primary problem for 24 percent of admissions to treatment programs in 2011, compared with 8 percent in 1995. While 27 percent of cannabis admissions in 2011 reported no second substance abuse problem, 38 percent had a problem with alcohol, and 10 percent had a problem with powder cocaine. The average age of cannabis clients was 23. Approximately 47 percent were Hispanic; 20 percent were White; and 27 percent were Black. Seventy-eight percent had been referred from the criminal justice system, and only 12 percent were employed full time.

The El Paso DEA FD reported that cannabis was the controlled substance most frequently seized, often at U.S. Border Patrol checkpoints. It was readily available, but most of the cannabis passing through the El Paso area was destined for other cities in the United States. Large quantities were routinely seized in the area, but there was little cannabis cultivation in the area. In the Dallas/Fort Worth area, large-scale amounts of imported Mexican cannabis, domestically cultivated plants, and indoor grow operations provided large amounts of high-quality cannabis. The Dallas DEA FD office reported an increased number of seizures of domestic outdoor cultivated cannabis, which may be due to a demand for the higher quality produced in domestic grows. Marketing the locally grown cannabis avoids transportation costs, border violence, and risk of detection at the border. The Houston DEA FD reported Mexican cannabis was the primary type of cannabis there, and there were more cannabis seizures than in the previous year; it was smuggled in through the Rio Grande Valley area. Hydroponic and indoor grow houses were also present in the Houston area.

Synthetic Cannabis (Cannabimimetics)

A number of synthetic formulations such as JWH-018, JWH-073, CP-47, 497, and HU-210 mimic the primary psychoactive ingredient tetrahydrocannabinol (THC) in cannabis. 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," "spice gold." They had been available through gas stations and specialized stores, such as head shops, and were marketed as herbal incense. Since March 1, 2011, the DEA has scheduled 15 of these synthetic cannabinoids as Schedule I, and on September 1, 2011, Texas also made these substances Schedule I. Since then, the drugs are obtained over the Internet and from supplies stockpiled prior to the ban. As exhibit 17 shows, use declined immediately after scheduling but has now increased again.

Symptoms associated with use of the cannabis homologs or cannabimimetics 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.

From 2010 to May 2012, the Texas Poison Center Network received 1,339 calls involving human exposures to cannabimimetics (504 in 2010, 587 in 2011, and 248 to date in 2012). Of all the calls, the age range was between 10 and 79; 45 percent were younger than 20; 75 percent were male; and 90 percent had either misused or abused the substance.

The Texas toxicology laboratories identified 79 items in 2010 and 851 in 2011. The El Paso FD DEA reported that some local distributors were making their own "Spice" by spraying potpourri with acetone and chemicals obtained in Ciudad Juarez or from China.

"Club Drugs" and Emerging Psychoactive Substances

This section includes not only those drugs which have been known as "club" or "party" drugs, but also the new synthetic drugs that have appeared in the last few years and which are continuing to appear in different chemical formulations.

Exhibit 18 shows the demographic characteristics of clients entering DSHS-funded treatment programs statewide with a problem with a club drug. The treatment data include a broader category of "Hallucinogens," which consists of LSD (lysergic acid diethylamide), DMT (dimethyltryptamine), STP (phencyclidine and 2,5-Dimethoxy-4-methylamphetamine), mescaline, psilocybin, and peyote.

Among the clients shown in exhibit 18, the GHB (gamma hydroxybutyrate) clients were the most likely to be White; PCP (phencyclidine) clients were the most likely to be Black; and Rohypnol® users were the most likely to be Hispanic and were the youngest. The users of hallucinogens and PCP had the longest histories of use prior to treatment admission, while the Rohypnol® users came to treatment after 2 years of use.

BZP (1-Benzylpiperazine) and TFMPP (1-(3-trifluoromethylphenyl)piperazine)

BZP has pharmacological effects that are qualitatively similar to those of amphetamine. It is a Schedule I drug that is often taken in combination with TFMPP, a noncontrolled substance, in order to enhance its effects as a substitute for MDMA. BZP 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 toxicology laboratories analyzed 2 BZP exhibits and no TFMPP exhibits in 2006, 16 BZP and 7 TFMPP exhibits in 2007, 274 BZP and 190 TFMPP exhibits in 2008, 744 BZP and 677 TFMPP exhibits in 2009, 470 BZP and 391 TFMPP exhibits in 2010, and 342 BZP and 168 TFMPP exhibits in 2011.

DXM (Dextromethorphan)

The most popular DXM products are 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 2010 Texas school survey reported that 5 percent of secondary students indicated they had ever used DXM, and 2 percent had used DXM products in the past year.

The Texas Poison Center Network reported the number of abuse and misuse cases involving DXM rose from 99 in 1998 to 530 in 2011. The average age of these cases was 21. The number of cases involving abuse or misuse of Coricidin HBP® was 288 in 2006; this dropped to 59 in 2011. The average age in 2011 was 19, which shows that youth can easily access and misuse this substance. Toxicology laboratories analyzed 15 substances in 2006 that were DXM items, compared with 9 in 2007, 20 in 2008, 47 in 2009, 62 in 2010, and 27 in 2011.

MDMA (3,4-Methylenedioxymethamphetamine, Ecstasy) and MDA (3,4-methylenedioxy-amphetamine)

The 2010 Texas secondary school survey reported that lifetime ecstasy use dropped from a high of 9 percent in 2002 to 5 percent in 2008, but it increased to 7 percent in 2010, while past-year use was 2 and 3 percent in 2008 and 2010, respectively. The YRBS reported that 12 percent of students had ever used ecstasy in 2011, compared with 9 percent in 2009, 10 percent in 2007, and 8 percent in 2005.

MDMA indicators have varied over time, as exhibit 19 shows. The Texas Poison Center Network reported 292 calls involving misuse or abuse of ecstasy in 2006, compared with 215 in 2007, 253 in 2008, 310 in 2009, 272 in 2010, and 258 in 2011 (exhibit 19). In 2011, the average age of these cases was 21, and 53 percent were male.

Ecstasy is often used in combination with other drugs, as shown by secondary problems with cannabis, alcohol, or cocaine (exhibit 18). In 2011, the average age of MDMA clients was 23, and they had been using the drug for more than 4 years before coming to treatment. Exhibit 20 shows that over time, ecstasy use has spread outside the White rave scene and into the Hispanic and Black communities.

Toxicology laboratories identified MDMA in 1,626 exhibits in 2006, 1,758 exhibits in 2007, 1,898 exhibits in 2008, 2,192 exhibits in 2009, 1,534 exhibits in 2010, and 993 in 2011 (exhibit 19). MDA was identified in 268 exhibits in 2006, 225 in 2007, 149 in 2008, 45 in 2009, 98 in 2010, and 69 in 2011.

The Dallas DEA FD reported that the primary sources of ecstasy were from Canada through southern California and were trafficked by Asian drug trafficking organizations, with increasing local retail distribution involving younger, Black males. According to the Houston DEA FD, ecstasy availability was moderate and stable, with Asian and Caucasian traffickers controlling distribution of this drug, which came from Canada and Europe. The El Paso DEA FD reported an increase in rave parties using ecstasy, and due to the violence in Ciudad Juarez, young adults were staying on the United States side to party. The drug was brought in from Ciudad Juarez in 200–800 pill batches. In 2011, single dosage units of ecstasy sold for $5–$20 in Houston, $2–$15 in El Paso, $2–$30 in Dallas, and $5–$20 in Houston.

GHB, GBL (Gamma Butyrate Lactone), and 1,4-BD (1-4-Butanediol)

The number of cases of misuse or abuse of GHB or its precursors (GBL and 1,4-BD) reported to the Texas Poison Center Network was 43 in 2006, 56 in 2007, 49 in 2008, 46 in 2009, 55 in 2010, and 36 in 2011. The average age of the abusers in 2011 was 28.

In 2011, 23 clients were admitted to DSHS-funded treatment who used GHB. Their average age was 30; 90 percent were White; 74 percent were female; and 83 percent were involved with the criminal justice system (exhibit 18).

There were 88 items identified by toxicology laboratories as being GHB in 2006, compared with 64 in 2007, 63 in 2008, 99 in 2009, 69 in 2010, and 53 in 2011. There were nine items identified as GBL in 2006, compared with none in 2007, five in 2008, four in 2009, none in 2010, and three in 2011. There were no items identified as 1,4-BD in 2006, 2007, or 2008; two were identified in 2009; six were identified in 2010, and two were identified in 2011.

The Dallas DEA FD reported GHB availability was stable, as did the Houston FD. In Dallas, a gallon sold for $1,200–$1,600. In Houston, a dose cost $20–$65, and a 16-ounce bottle of GHB cost $100.

Ketamine

Three cases of misuse or abuse of ketamine were reported to the Texas Poison Center Network in 2006, compared with one each in 2007, 2008, and 2009; three in 2010; and seven in 2011.

In 2006, 161 substances were identified as ketamine by toxicology laboratories. There were 235 items identified in 2007, 129 in 2008, 123 in 2009, 60 in 2010, and 16 in 2011. A dose sold for $20–$40 in Lubbock and $25–$60 in San Antonio for 0.2 grams.

LSD and Other Hallucinogens

The 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 4.6 percent in 2010. Past-month use dropped from a peak of 2.5 percent in 1998 to 1.5 percent in 2010.

The Texas Poison Center Network reported 33 mentions of abuse or misuse of LSD in 2006, compared with 31 in 2007, 17 in 2008, 26 in 2009, 18 in 2010, and 16 in 2011. There were also 96 cases of intentional misuse or abuse of hallucinogenic mushrooms reported in 2006, 125 in 2007, 93 in 2008, 96 in 2009, 85 in 2010, and 59 in 2011. The average ages in 2011 were 20 for the LSD cases and 24 for the mushroom cases.

Of the hallucinogen treatment admissions in 2011, the average age was 31. Fifty-five percent were male; 49 percent were involved in the criminal justice system; and 15 percent were employed full time (exhibit 18).

Toxicology laboratories identified 34 substances as LSD in 2006, 41 in 2007, 36 in 2008, 59 in 2009, 71 in 2010, and 19 in 2011.

PCP (Phencyclidine)

The Texas Poison Center Network reported cases of "Fry," "Amp," "Water," "Wet," "Wack," "PCP," or formaldehyde. Often, cannabis joints are dipped in formaldehyde that contains PCP, or PCP is sprinkled on the joint or cigarette. The number of Texas Poison Center Network cases involving PCP declined from 290 in 2008 to 152 in 2011 (exhibit 21). The average age in 2011 was 28.

Exhibit 21 shows an increase in the number of clients entering treatment statewide with a primary problem with PCP from 487 in 2008 to 595 in 2011. A decrease had been observed in 2010, however. Of the clients in 2011, 91 percent were Black; 44 percent were male; 39 percent were involved in the criminal justice system; and 8 percent were employed full time.

Toxicology laboratories identified 273 PCP samples in 2006, 326 in 2007, 382 in 2008, 370 in 2009, and 370 in 2009, 394 in 2010, and 368 in 2011 (exhibit 21). PCP cost $20 per dipped cigarette and $700–$1,200 per gallon in San Antonio.

Rohypnol®

Rohypnol® is the benzodiazepine, flunitrazepam, that 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. Rohypnol® continued to be a problem along the Texas border with Mexico. The 2010 secondary school survey found that students from the border area were about three times more likely to report lifetime Rohypnol® use than those living elsewhere in the State (6 versus 2 percent lifetime, and 2 versus 1 percent current use). Use in both the border and nonborder areas has declined since its peak in 1998.

The numbers of confirmed exposures to Rohypnol® reported to the Texas Poison Center Network were 10 in 2006, 11 in 2007, 12 in 2008, 23 each in 2009 and 2010, and 22 in 2011.

The number of youths and adults admitted into treatment with a primary with Rohypnol® has varied. In 2011, clients abusing Rohypnol® were the youngest of the club drug clients (with an average age of 16), and they were all Hispanic, reflecting the availability and use of this drug along the border. Seventy-four percent were involved with the criminal justice system (exhibit 18).

Toxicology laboratory exhibits for flunitrazepam numbered 10 in 2006, 2 in 2007, none in 2008, 3 in 2009, 1 in 2010, and none in 2011. Rohypnol® sold for $2–$4 per pill in San Antonio in 2008.

Synthetic or Substituted Cathinones

Emerging psychoactive substances include the substituted cathinones, including mephedrone (4-methylmethcathinone or 4-MMC) and MDPV (3,4-methylenedioxypyrovalerone). Mephedrone is a designer substance of the phenethylamine class and a cathinone derivative from the khat plant. Its pharmacology and structure are similar to MDMA and amphetamine. MDPV is another cathinone derivative with effects similar to cocaine and amphetamine. These drugs are usually supplied as a white, crystalline powder, although they also are available in tablet form, and are sold over the Internet and through "head shops," convenience stores, gas stations, 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 Meow." They are usually ingested or inhaled, and they are reported to produce euphoria, increased energy, empathy, talkativeness, intensification of sensory experiences, and sexual arousal.

A final order to temporarily schedule these drugs under the Federal Controlled Substances Act went into effect on October 21, 2011, and it became Penalty Group 2 in Texas on September 1, 2011. Exhibit 17 shows the number of cases per month before and after the ban.

The Texas Poison Center Network reported 438 human exposures to "bath salt" substances from January 2010 to May 31, 2012 (22 in 2010, 340 in 2011, and 76 in 2012 through May). Ages ranged from 12 to 67, with 13 percent younger than 20. Seventy-four percent were male and 89 percent intended to abuse or misuse the drug. Common symptoms included tachycardia, hypertension, agitation, confusion, and hallucinations. The toxicology laboratories in Texas in 2010 identified 158 items that were synthetic or substituted cathinones; in 2011, 540 cathinone items were identified.

Other Abused Substances

Inhalants

The 2010 Texas elementary school survey found that 11 percent of students in grades 4–6 had ever used inhalants, and 8 percent had used in the school year. The 2010 secondary school survey found that 17 percent of students in grades 7–12 had ever used inhalants, and 6 percent had used in the past month. Inhalant use exhibits 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 inhalant users drop out of school early and are not in school in later grades to respond to school-based surveys. In addition, the Texas school surveys have consistently found that eighth 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. The 2011 YRBS reported that 11.4 percent of Texas high school students had ever used inhalants, compared with 11.9 percent in 2009, 12.9 percent in 2007, 13.2 percent in 2005, and 13.9 percent in 2001.

Of the calls to the Texas Poison Center Network in 2011 that involved human exposure to the inhalation of chemicals, there were 54 calls for misuse of air fresheners or dusting sprays containing tetrafluoroethane or difluoroethane or freon (66 percent were male and the average age was 26); 15 calls for exposure to automotive products, such as carburetor cleaner, transmission fluid, and gasoline (95 percent were male and the average age was 29); 18 calls for abuse or misuse of spray paint

or toluene (83 percent were male and the average age was 31); and 10 calls for helium, butane, or nitrous oxide gas (80 percent were male and the average age was 21).

Inhalant abusers represented 0.1 percent of the admissions to treatment programs in 2011. The clients tended to be male (66 percent), with an average age of 23. Twenty-nine percent were involved with the criminal justice system. Of the inhalant abusers, 18 percent reported no secondary drug problem; 42 percent had a second problem with cannabis; and 21 percent had a second problem with alcohol.

Steroids

The Texas school survey reported that 1.4 percent of all secondary students surveyed in 2010 had ever used steroids, and 0.5 percent had used steroids during the month before the survey. The 2011 YRBS found lifetime steroid use among Texas high school students was 4.8 percent, compared with 2.9 percent in 2009 and 3.9 percent in 2007.

The toxicology data for Texas reported that testosterone was the steroid most likely to be identified in forensic testing, although it constituted only 0.1 percent of all the items tested in 2011.

Carisoprodol (Soma®)

On January 11, 2012, carisoprodol became a Schedule IV drug nationally. Texas poison control centers confirmed that exposure cases of intentional misuse or abuse of the muscle relaxant carisoprodol (Soma®) increased from 83 in 1998 to 271 cases in 2011; the average age was 36.

Toxicology laboratory exhibits identified as carisoprodol have fluctuated in the past 5 years. The numbers of such drug items were 1,047 in 2006, 1,256 in 2007, 902 in 2008, 1,097 in 2009, 1,464 in 2010, and 1,079 in 2011. Soma®, which cost $0.75 to the pharmacy, sold for $5 on the street. Carisoprodol is one of the most popular drugs in the illicit drug market in the Dallas/Fort Worth area and is part of the combination with hydrocodone and alprazolam that is known as the “Houston Cocktail” or “Holy Trinity.”

Drug Abuse Patterns on the Texas–Mexico Border

The 2010 Texas secondary school survey reported that students living in counties along the Texas border were more likely to report lifetime use of a number of drugs than residents of nonborder counties, including tobacco (33 percent border versus 30 percent nonborder), powder cocaine (8 percent border versus 4 percent nonborder), ecstasy (11 percent border versus 6 percent nonborder), and Rohypnol® (6 percent border versus 2 percent nonborder). Nonborder students were more likely to report use of cannabis (27 versus 25 percent border). The results for other substances were similar in both areas: alcohol (63 percent nonborder versus 62 percent border), alprazolam (5 percent nonborder versus 4 percent border), methamphetamine (3 percent each), crack cocaine (2 percent each), and heroin (1 percent nonborder and 2 percent border). When asked which substances were very easy to obtain, border students were more likely to report Rohypnol® (10 percent) than nonborder students (6 percent), while nonborder students were more likely to report tobacco (36 percent) compared with 32 percent of border students, alcohol (43 percent nonborder versus 38 percent border), and cannabis (26 percent nonborder versus 24 percent border). Both groups reported powder cocaine equally easy to obtain (11 percent), as was crack cocaine (8 percent).

Different patterns were also seen in border and nonborder admissions to DSHS-funded treatment in 2011 (exhibits 22 and 23). Border clients were more likely to report problems with alcohol (33 versus 30 percent nonborder), cocaine (17 versus 13 percent) cannabis (30 versus 21 percent), and heroin (11 versus 10 percent). Nonborder clients were more likely to report problems with methamphetamine (10 versus 0.4 percent), and the levels for heroin were similar, at 14 percent border and 15 percent nonborder. In addition to differences in primary problems, nonborder clients were less likely to be male (59 versus 65 percent), more likely to be homeless (11 versus 3 percent), and more likely to be injectors (13 versus 10 percent).

The toxicology laboratory in El Paso in 2011 reported that approximately 44 percent of the items examined were cannabis, followed by cocaine (24 percent) and heroin (1.3 percent). In Laredo, 49 percent of the items analyzed were cannabis; 26 percent were cocaine; and 7 percent were heroin. In McAllen, 49 percent of the items analyzed were cocaine, with 19 percent identified as cannabis and 3 percent identified as methamphetamine.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The Texas DSHS estimated in 2010 that 1.8 percent of Texans were infected with hepatitis C virus (HCV). The number of acute HCV cases has fluctuated from 57 in 2006, to 71 in 2007, to 59 in 2008, to 36 in 2009, and 35 in 2010.

The case rate for syphilis increased from 2.9 per 100,000 population in 2003 to 4.9 per 100,000 in 2010. Exhibit 24 shows the 2011 case rates by age group. The case rates for gonorrhea and chlamydia were higher for females between the ages of 15 and 24; the case rates for syphilis were higher for males than for females for all age groups.

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 57 percent in the first half of 2011 (exhibit 25). Of the 2011 cases, 28 percent reported heterosexual mode of exposure, and 11 percent were injection drug users (IDUs). The proportions of cases involving IDUs or IDUs/MSM have decreased over time.

Persons infected with AIDS were increasingly likely to be people of color. Of the AIDS cases in 1H 2011, 40 percent were Black; 23 percent were White; and 37 percent were Hispanic (an increase from 31 percent in 2009) (exhibit 26). The rate of Blacks living with HIV/AIDS was more than four times the rate for Whites. The rate of new HIV diagnoses of Black females was 10 to 14 times higher than rates of Hispanic and White females, respectively. The proportion of IDUs entering DSHS-funded treatment programs decreased from 32 percent in 1988 to 14 percent in 2011.

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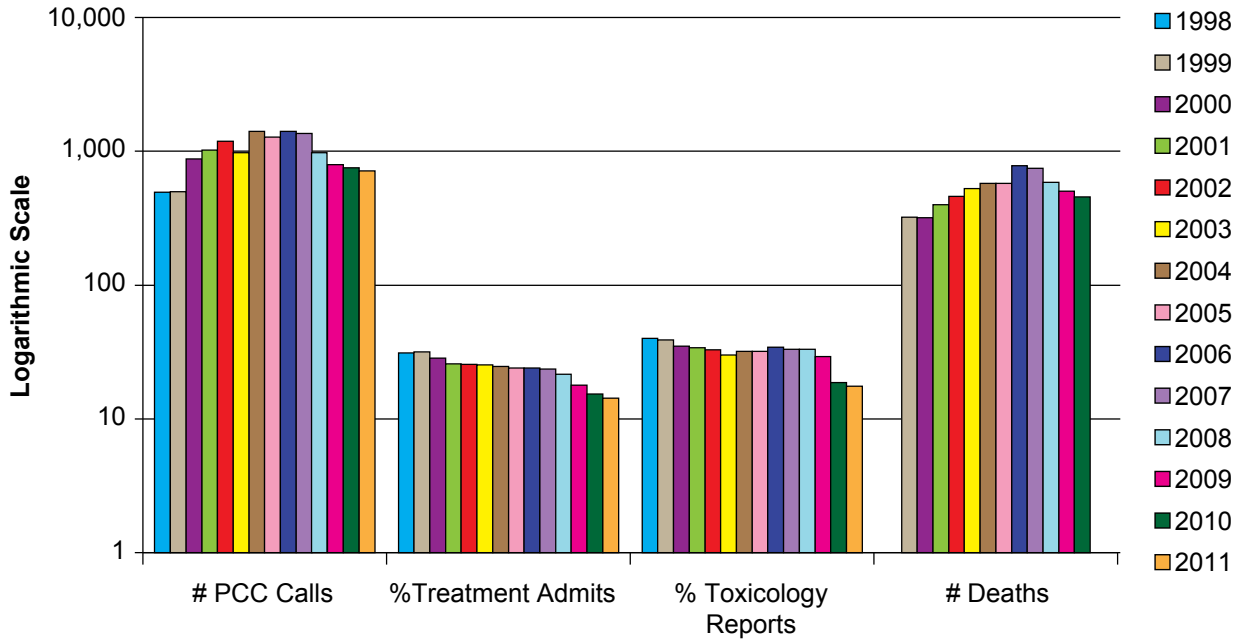
Exhibit 1. Number of Poison Control Center Calls (PCC), Proportion of Treatment Admissions and Toxicology Laboratory Reports, and Number of Deaths for Cocaine in Texas: 1998–2011



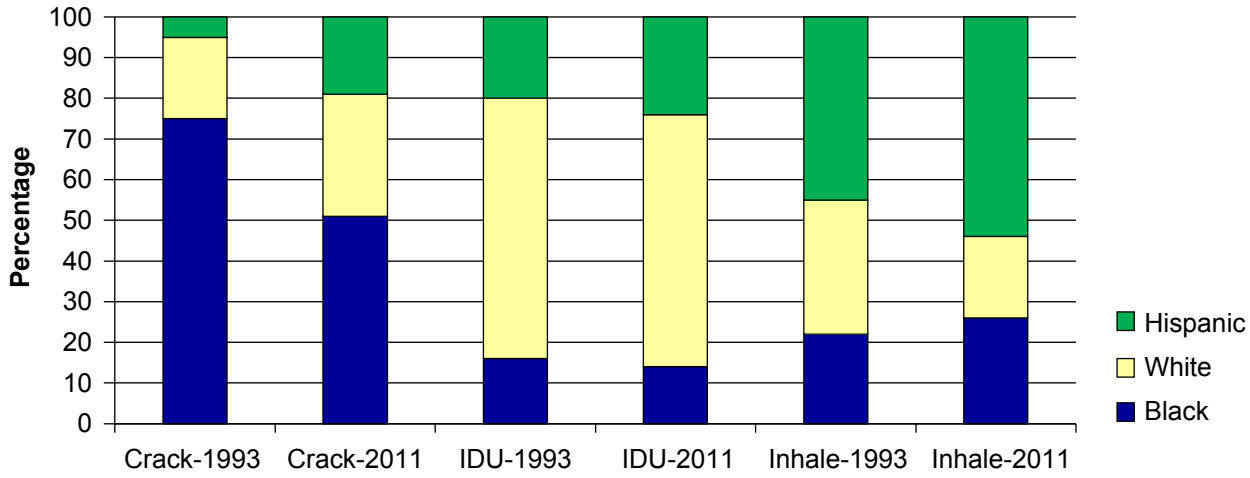
SOURCES: Texas Poison Control Network; Texas Department of State Health Services (DSHS); Texas Department of Public Safety (DPS), NFLIS; Texas Bureau of Vital Statistics

Exhibit 2. Characteristics of Clients Admitted to Treatment with a Primary Problem with Cocaine, by Route of Administration, in Texas: 2011

	Crack Cocaine Smoked	Powder Cocaine Injected	Powder Cocaine Inhaled	Cocaine All[1]
# Admissions	6,340	437	3,670	10,643
% of Cocaine Admits	60	4	34	100
Lag-1st Use to Tmt-Yrs.	15	17	11	14
Average Age	41	37	32	38
% Male	48	61	50	49
% Black	51	14	26	41
% White	46	83	68	55
% Hispanic	19	25	54	32
% CJ[2] Involved	54	49	41	50
% Employed Full Time	7	7	17	10
% Homeless	18	19	5	13

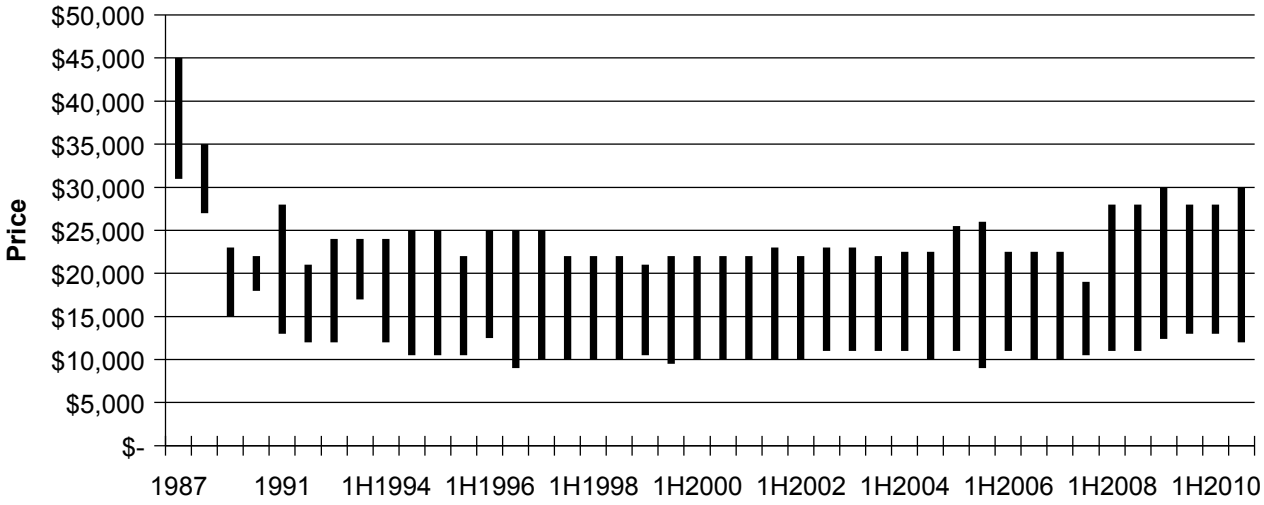
[1]Total includes clients with "other" routes of administration.
[2]CJ=Criminal Justice System.
SOURCE: Texas Department of State Health Services (DSHS); analysis by L. San Jose

Exhibit 3. Percentage of Route of Administration of Cocaine, by Race/Ethnicity, Treatment Admissions, in Texas: 1993–2011



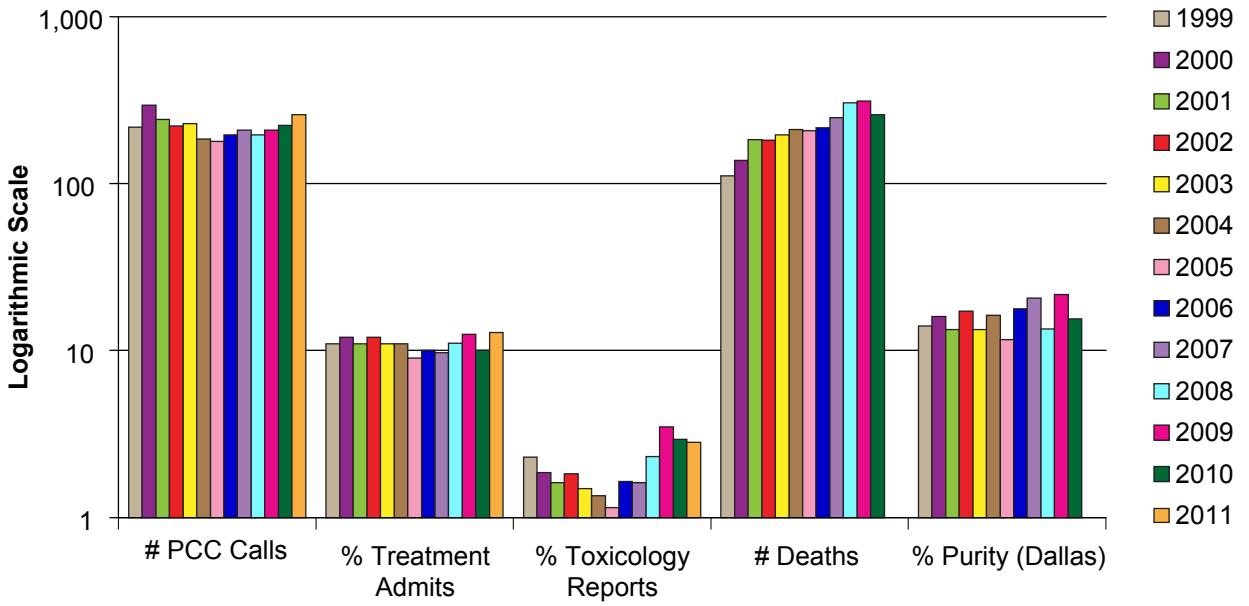
SOURCE: Texas Department of State Health Services (DSHS)

Exhibit 4. Price of a Kilogram of Cocaine, as Reported by the DEA, in Texas: 1987–2010[1]



[1]Prices Reported by Half-Year Since 1993; 1H=first half.
SOURCE: DEA

Exhibit 5. Number of Poison Control Center Calls (PCC), Proportion of Treatment Admissions and Toxicology Laboratory Reports, Number of Deaths, and Purity for Heroin in Texas: 1999–2011



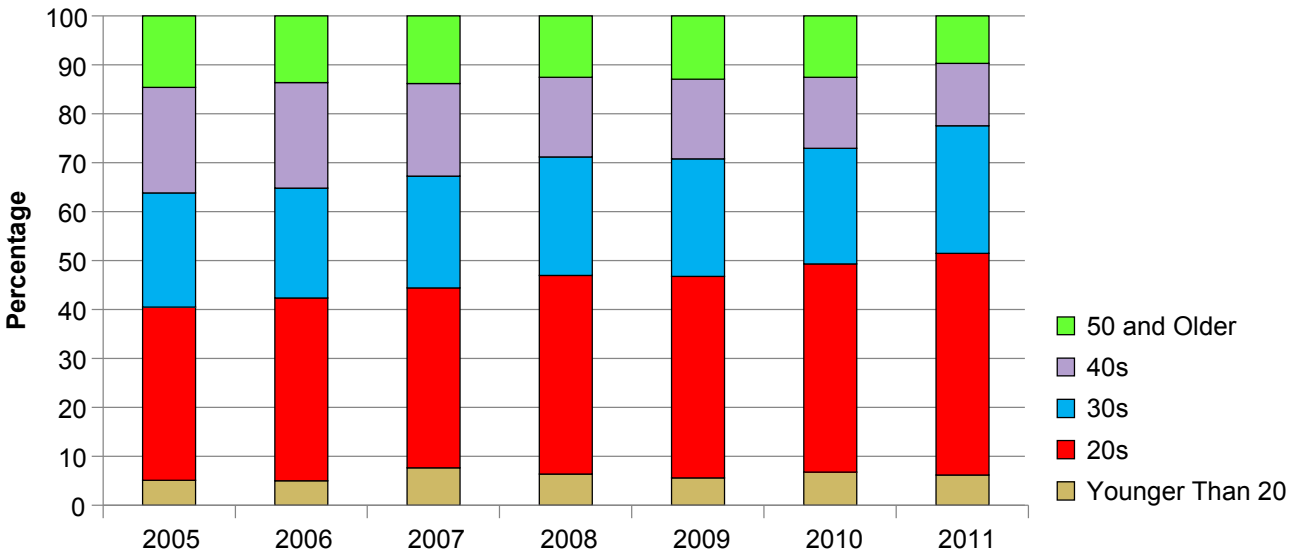
SOURCES: Texas Poison Control Network; Texas Department of State Health Services (DSHS); Texas Department of Public Safety (DPS), NFLIS; Texas Bureau of Vital Statistics; DMP, DEA

Exhibit 6. Characteristics of Clients Admitted to Treatment with a Primary Problem with Heroin, by Route of Administration, Texas: 2011

	Injected	Inhaled	Smoked	All[1]
# Admissions	7,517	1,756	122	9,556
% of Heroin Admits	80	18	1	100
Lag-1st Use to Tmt-Yrs.	12	8	7	11
Average Age	33	29	28	32
% Male	61	52	62	59
% Black	6	15	6	7
% White	86	78	84	84
% Hispanic	49	57	41	51
% CJ[2] Involved	69	63	70	68
% Employed Full Time	5	5	4	5
% Homeless	19	9	11	17

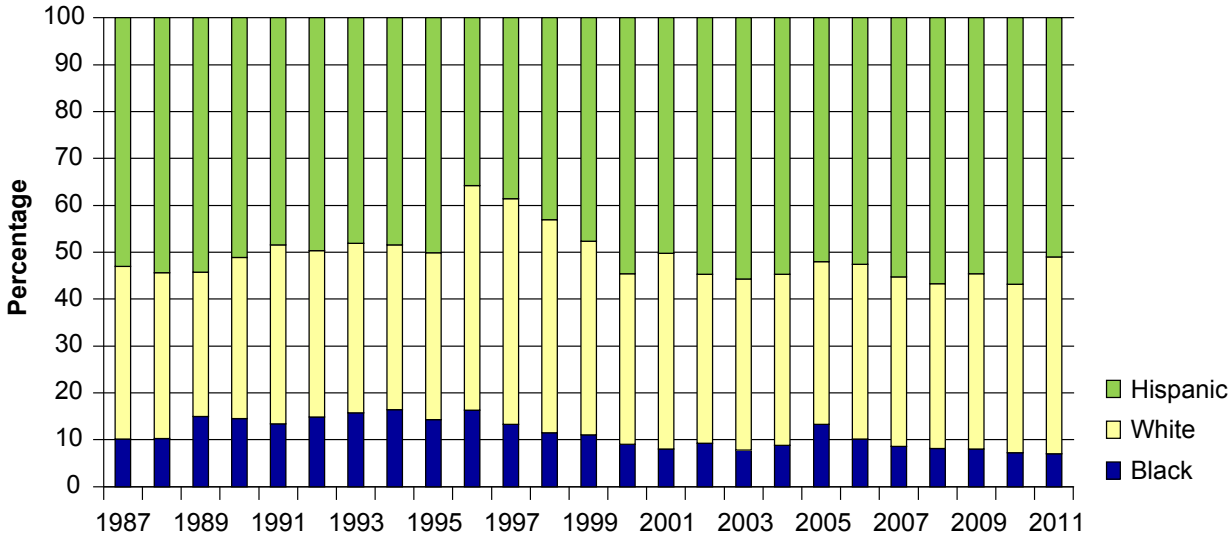
[1]Total includes clients with other routes of administration.
[2]CJ=Criminal Justice System.
SOURCE: Texas Department of State Health Services (DSHS); analysis by L. San Jose

Exhibit 7. Percentage of Heroin Admissions to Treatment, by Age Groups, in Texas: 2005–2011



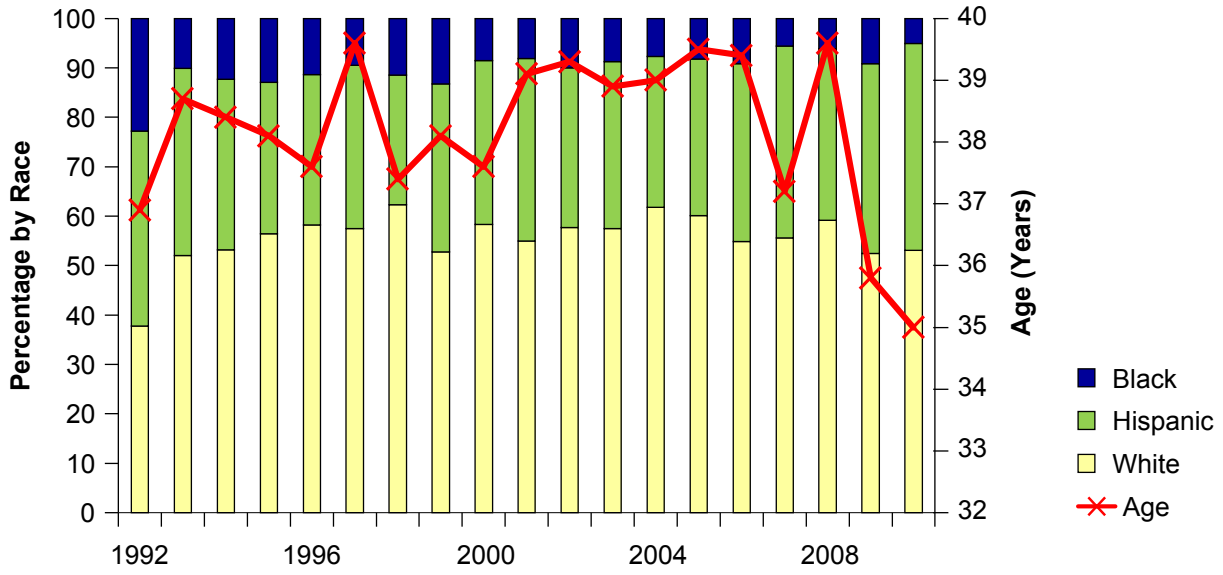
SOURCE: Texas Department of State Health Services (DSHS); analysis by J.C. Maxwell

Exhibit 8. Percentage of Heroin Admissions to Treatment, by Race/Ethnicity, in Texas: 1987–2011



SOURCE: Texas Department of State Health Services (DSHS)

Exhibit 9. Age and Race/Ethnicity of Persons Dying with a Mention of Heroin, in Texas: 1992–2010



SOURCE: Texas Department of State Health Services (DSHS)

Exhibit 10. Price and Purity of Heroin Purchased in Dallas, El Paso, Houston, and San Antonio: 1995–2010

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Dallas Purity (%)	6.8	3.5	7.0	11.8	14.0	16.0	13.4	17.2	13.3	16.3	11.6	17.7	20.6	13.5	21.6	15.5
Price/ Milligram Pure	$2.34	$6.66	$4.16	$1.06	$1.01	$0.69	$1.36	$0.75	$0.98	$0.90	$1.11	$1.10	$1.09	$0.93	$0.91	$1.31
El Paso Purity (%)	—	—	—	—	56.7	50.8	41.8	40.3	44.7	50.5	44.7	44.8	39.8	41.1	30.5	—
Price/ Milligram Pure	—	—	—	—	$0.49	$0.34	$0.44	$0.27	$0.40	$0.27	$0.40	$0.33	$0.49	$0.61	$0.69	—
Houston Purity (%)	16.0	26.1	16.3	34.8	17.4	18.2	11.3	28.2	27.4	24.8	24.4	18.1	7.0	6.2	6.0	3.1
Price/ Milligram Pure	$1.36	$2.15	$2.20	$2.43	$1.24	$1.14	$1.51	$0.64	$0.45	$0.44	$1.11	$1.90	$1.66	$3.05	$3.42	$6.77
San Antonio Purity (%)	—	—	—	—	—	—	—	—	8.2	6.4	11.2	17.4	7.1	7.6	8.7	7.7
Price/ Milligram Pure	—	—	—	—	—	—	—	—	$1.97	$2.24	$0.56	$0.79	$1.88	$1.42	$1.03	$1.09

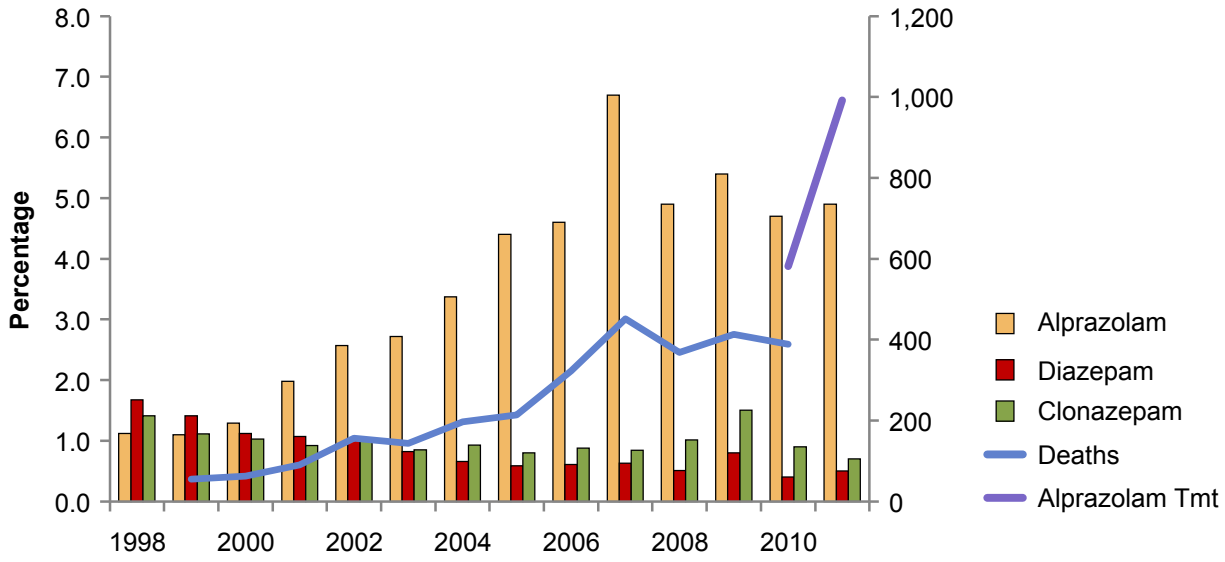
SOURCE: DMP, DEA

Exhibit 11. Indicators of Abuse of Opiates in Texas: 1998–2011[1]

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Poison Control Center Cases of Abuse and Misuse (Numbers)														
Buprenorphine	—	—	1	0	0	4	1	6	8	10	14	21	22	32
Fentanyl	—	—	9	1	3	11	17	11	15	24	19	27	23	27
Hydrocodone	—	—	236	276	348	357	427	431	540	592	558	617	681	676
Methadone	—	—	27	23	46	35	53	57	60	71	72	57	54	54
Oxycodone	—	—	22	34	68	64	77	50	68	67	81	74	101	75
DSHS Treatment Admissions (Numbers)														
Methadone[2]	55	69	44	52	75	86	63	91	101	113	160	145	132	180
"Other Opiates"[2]	553	815	890	1,386	2,084	2,794	3,433	3,482	3,903	4,529	5,221	5,844	2,679	2,047
Codeine[3]	—	—	—	—	—	—	—	—	—	—	—	—	88	109
Hydrocodone[3]	—	—	—	—	—	—	—	—	—	—	—	—	1,427	3,102
Hydromorphone[3]	—	—	—	—	—	—	—	—	—	—	—	—	143	222
Deaths with Mention of Substance (DSHS) (Numbers)														
Other Opioids	—	122	168	224	313	370	369	402	577	572	535	555	564	—
Synthetic Narcotics	—	52	52	80	120	80	94	93	113	142	120	171	165	—
Methadone	—	27	62	89	141	161	164	205	222	224	198	183	190	—
Drug Exhibits Identified by Toxicology Laboratories (NFLIS) (Numbers)														
Hydrocodone	61	530	661	1,010	1,162	1,701	2,036	2,651	3,201	3,835	3,663	4,239	5,271	4,604
Methadone	4	9	23	52	62	79	150	184	204	251	302	320	285	277
Oxycodone	11	41	77	150	164	232	309	334	335	333	397	456	515	420
Buprenorphine	—	20	12	6	10	11	6	6	13	25	43	89	131	113

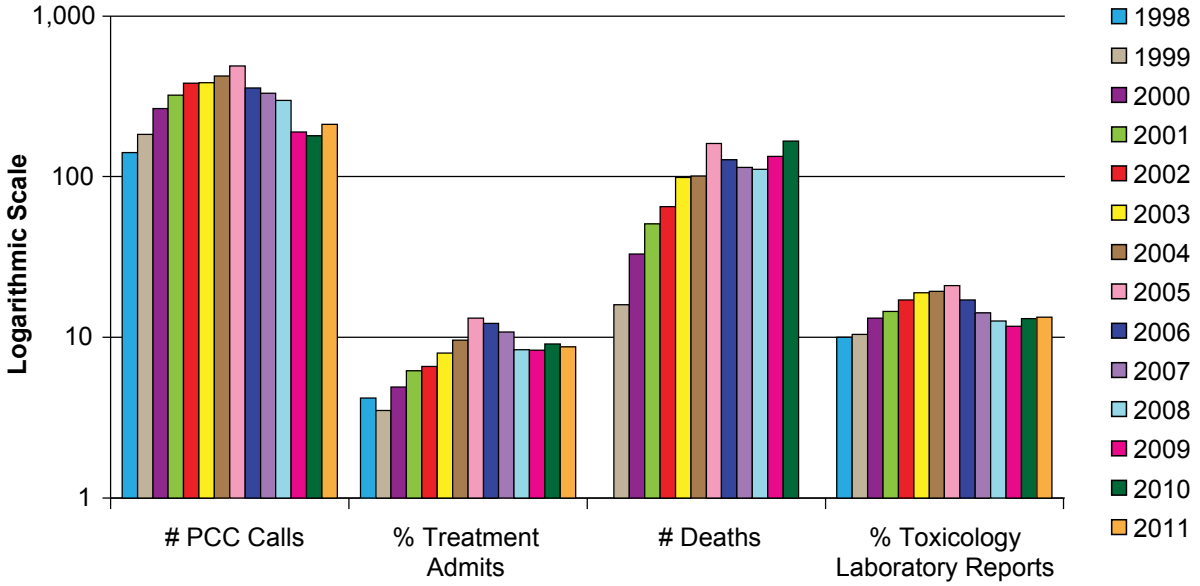
[1]NFLIS data for 2009–2011 are subject to change.
[2]"Other Opiates" refers to all other opioids until 2010.
[3]As of 2010, information on most common opioids reported separately.
SOURCE: Texas Department of State Health Services (DSHS), NFLIS, DEA

Exhibit 12. Benzodiazepines, as Percentage of All Items Identified by Toxicology Laboratories, and Number of Deaths and Treatment Admissions in Texas: 1998–2011



SOURCE: Texas Department of State Health Services (DSHS), NFLIS, DEA

Exhibit 13. Number of Poison Control Center Calls (PCC), Proportion of Treatment Admissions and Toxicology Laboratory Reports, and Number of Deaths for Methamphetamine in Texas: 1998–2011



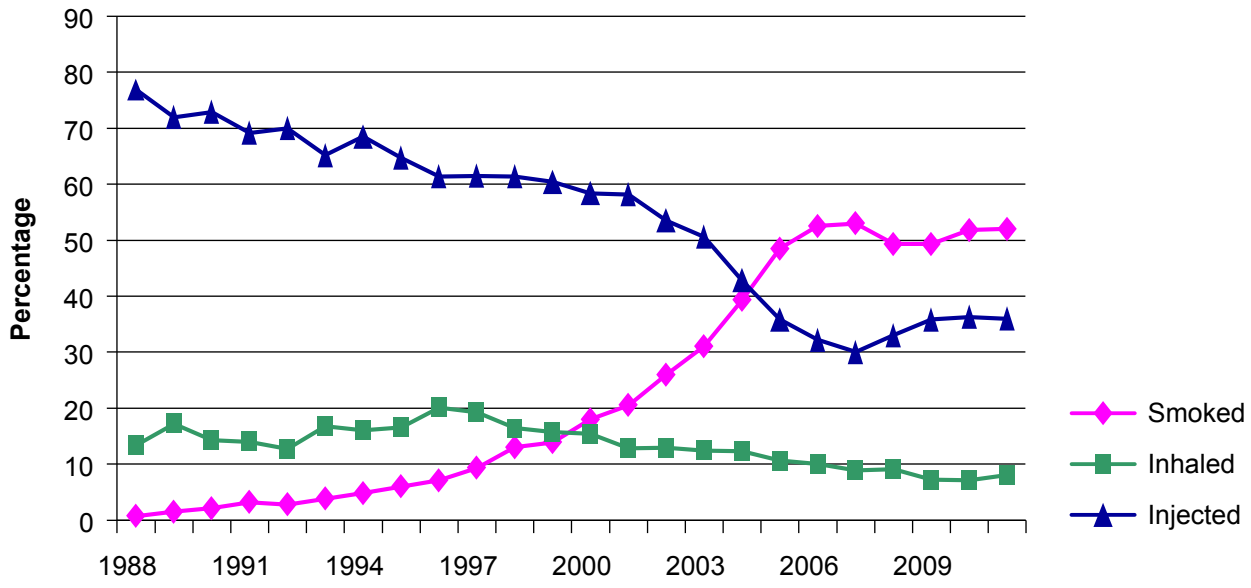
SOURCES: Texas Poison Control Network; Texas Department of State Health Services (DSHS); Texas Department of Public Safety (DPS), NFLIS; Texas Bureau of Vital Statistics

Exhibit 14. Characteristics of Clients Admitted to Treatment with a Primary Problem with Amphetamines or Methamphetamines, by Route of Administration, in Texas: 2011

	Injected	Inhaled	Smoked	Oral	All[1]
# Admissions	2,313	490	3,406	231	6,490
% of Stimulant Admits	36	8	52	4	100
Lag-1st Use to Tmt-Yrs.	14	12	10	11	12
Average Age-Yrs.	33	35	32	34	32
% Male	45	42	38	39	41
% Black	1	2	3	2	2
% White	97	92	93	94	95
% Hispanic	8	17	20	17	15
% CJ[2] Involved	43	43	44	34	44
% Employed Full Time	10	15	14	13	13
% Homeless	13	8	8	7	10

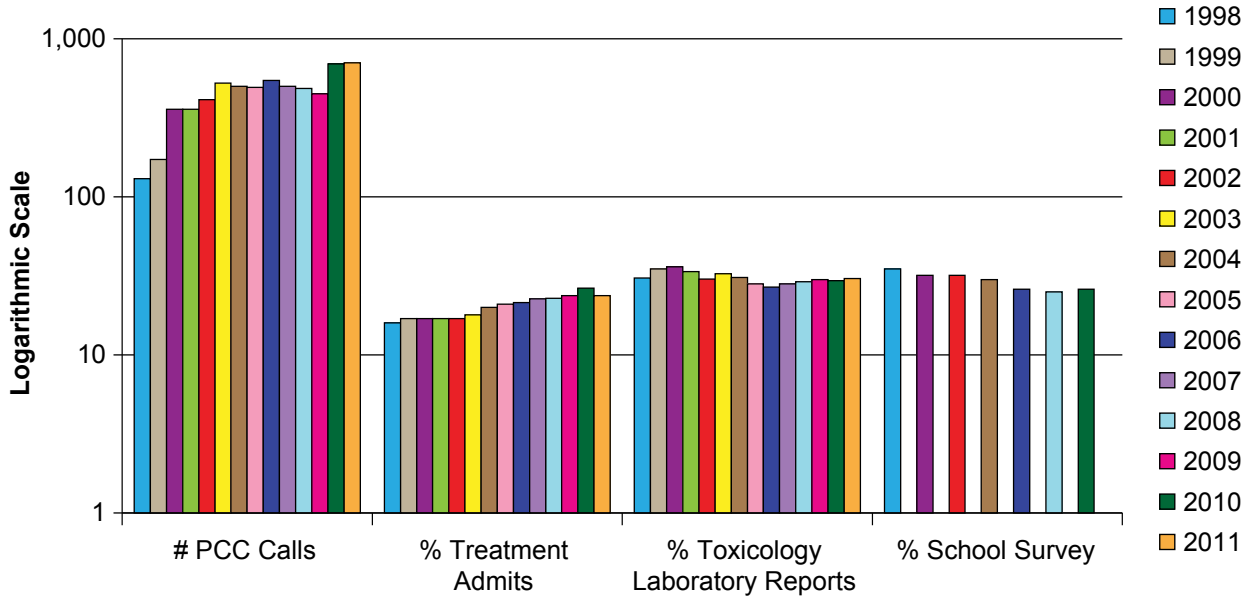
[1]Total includes clients with "other" routes of administration
[2]CJ=Criminal Justice System.
SOURCE: Texas Department of State Health Services (DSHS); analysis by L. San Jose

Exhibit 15. Percentage of Route of Administration of Methamphetamine, by Clients Admitted to Treatment in Texas: 1988–2011



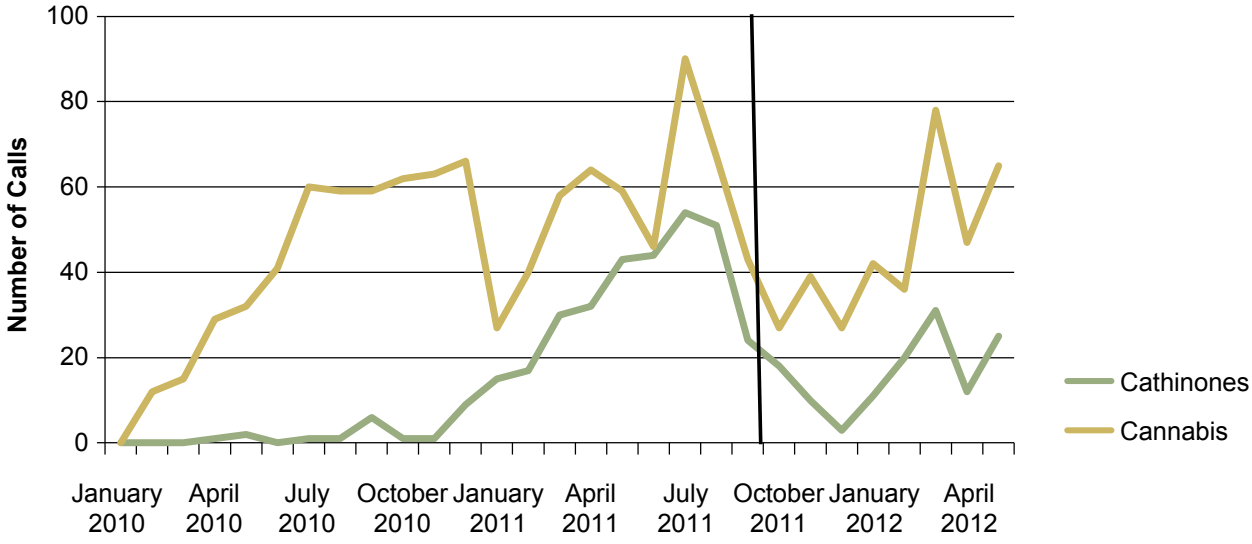
SOURCE: Texas Department of State Health Services (DSHS)

Exhibit 16. Number of Poison Control Center Calls (PCC), Proportion of Treatment Admissions and Toxicology Laboratory Reports, and Students Who Ever Used Marijuana in Texas: 1998–2011



SOURCES: Texas Poison Control Network; Texas Department of State Health Services (DSHS); Texas Department of Public Safety (DPS), NFLIS; Texas School Survey

Exhibit 17. Number of Poison Control Center Calls Involving Human Exposure to Cannabis Homologs (Cannabimimetics) and Substituted Cathinones, Before and After Scheduling, in Texas: 2010–April 2012



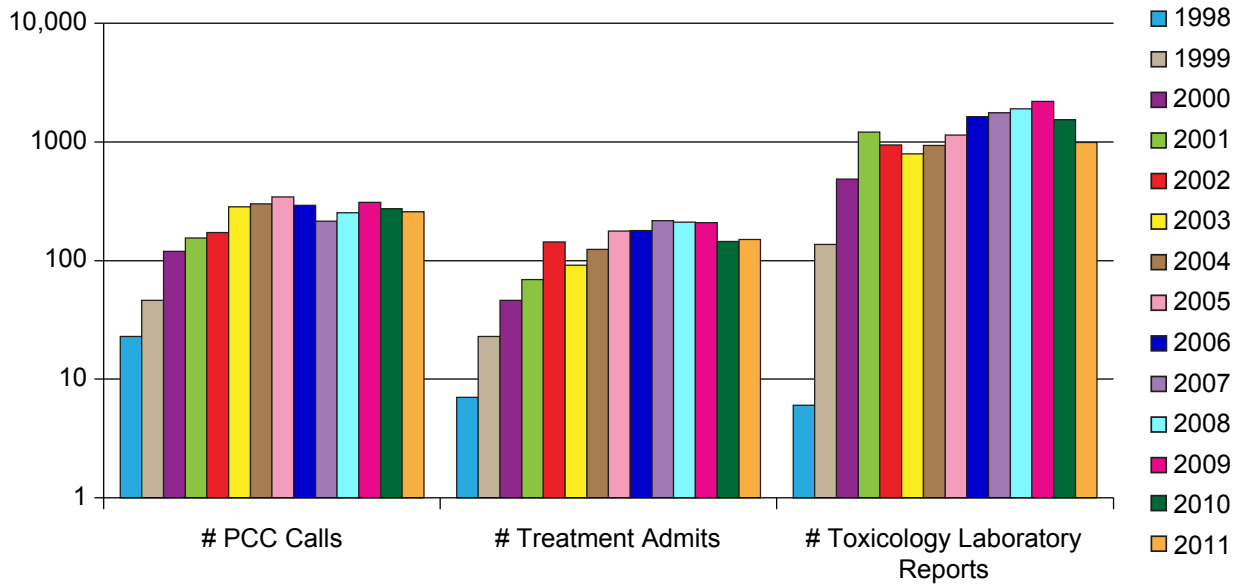
SOURCE: Texas Poison Center Network

Exhibit 18. Characteristics of Clients Admitted to DSHS-Funded Treatment With a Primary Problem with "Club Drugs" in Texas: 2011

Club Drug	GHB	Hallucinogens	LSD	MDMA	PCP	Rohypnol®
# Admissions	23	66	14	137	595	24
Average Age (Years)	30	31	25	23	30	16
Lag from 1st Use to Treatment	6	10	8	4	10	2
% Male	26	54	100	53	44	46
% Black	0	30	36	30	91	0
% White	100	62	64	67	9	100
% Hispanic	0	*[1]	0	34	5	100
% Criminal Justice Involved	83	49	0	68	61	74
% Use Daily	70	32	*	15	27	21
% Employed Full-Time	0	15	*	8	8	0
% Use Orally	100	44	79	88	5	100
Other Secondary Drug Problem						
% Marijuana	*	10	29	35	29	54
% Alcohol	*	17	0	14	16	1
% Methamphetamine	22	*	0	5	0	*
% Cocaine	0	*	0	11	11	*
% Crack	0	*	0	0	2	0
% Heroin	0	0	0	3	0	1
% Other Opiates	*	1	*	0	2	0
% Benzodiazepines	17	1	*	4	3	0

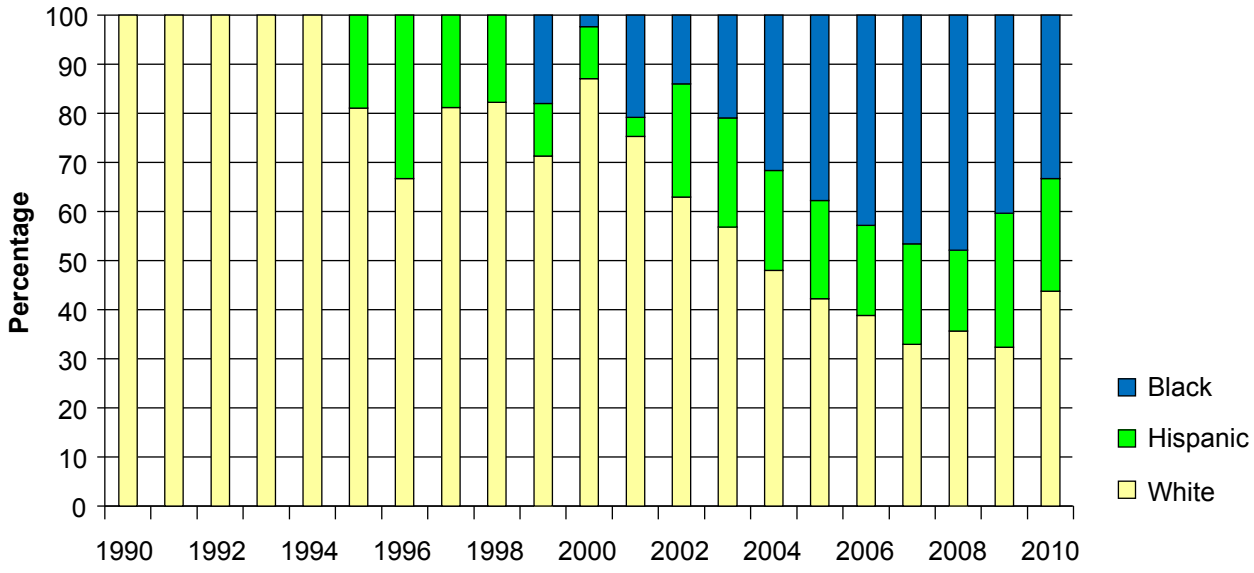
[1]Fewer than 3 cases.
SOURCE: Texas Department of State Health Services (DSHS)

Exhibit 19. Number of Poison Control Center Calls (PCC), Treatment Admissions, and Toxicology Laboratory Reports for MDMA in Texas: 1998–2011



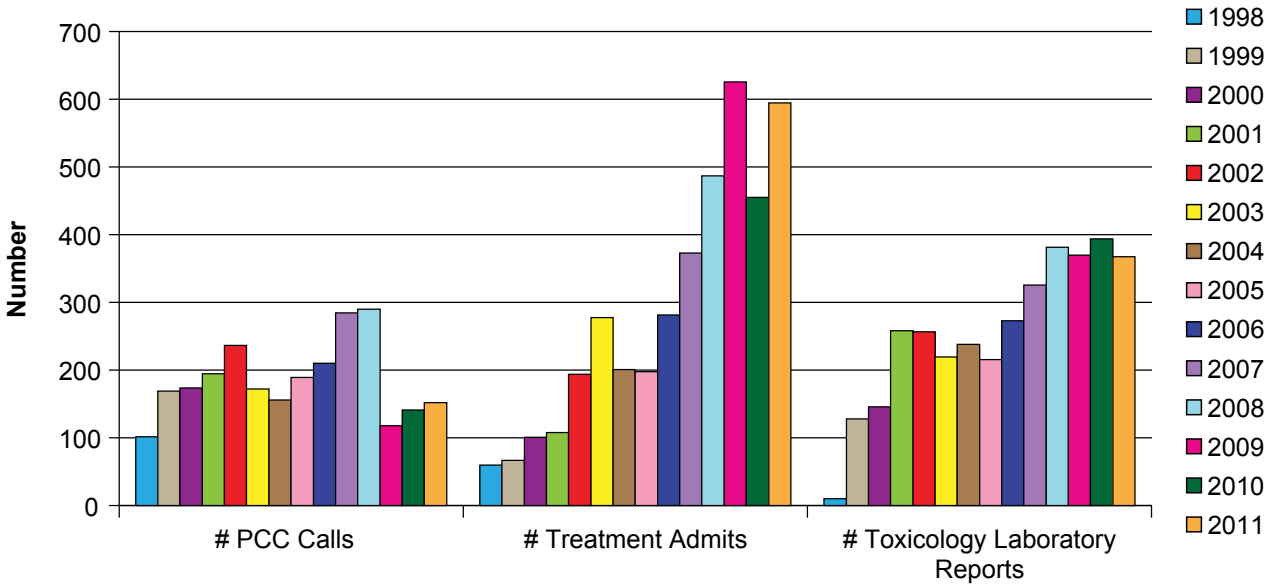
SOURCES: Texas Poison Control Network; Texas Department of State Health Services (DSHS); Texas Department of Public Safety (DPS), NFLIS

Exhibit 20. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary Problem with MDMA in Texas: 1990–2011



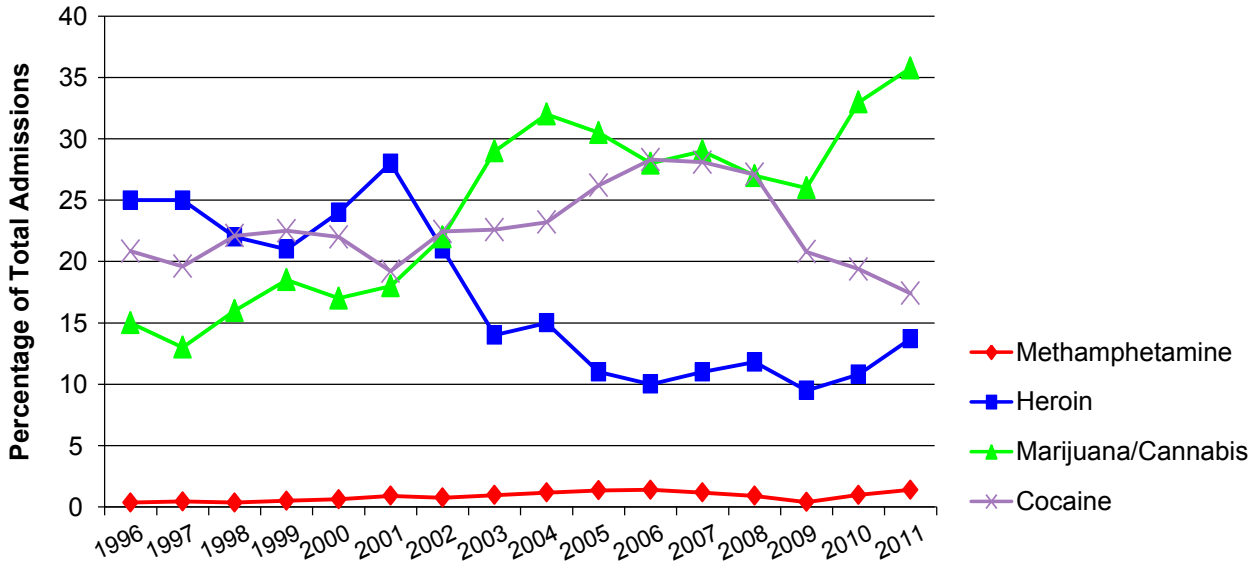
SOURCE: Texas Department of State Health Services (DSHS)

Exhibit 21. Number of Poison Control Center Calls (PCC), Treatment Admissions, and Laboratory Reports for PCP in Texas: 1998–2011



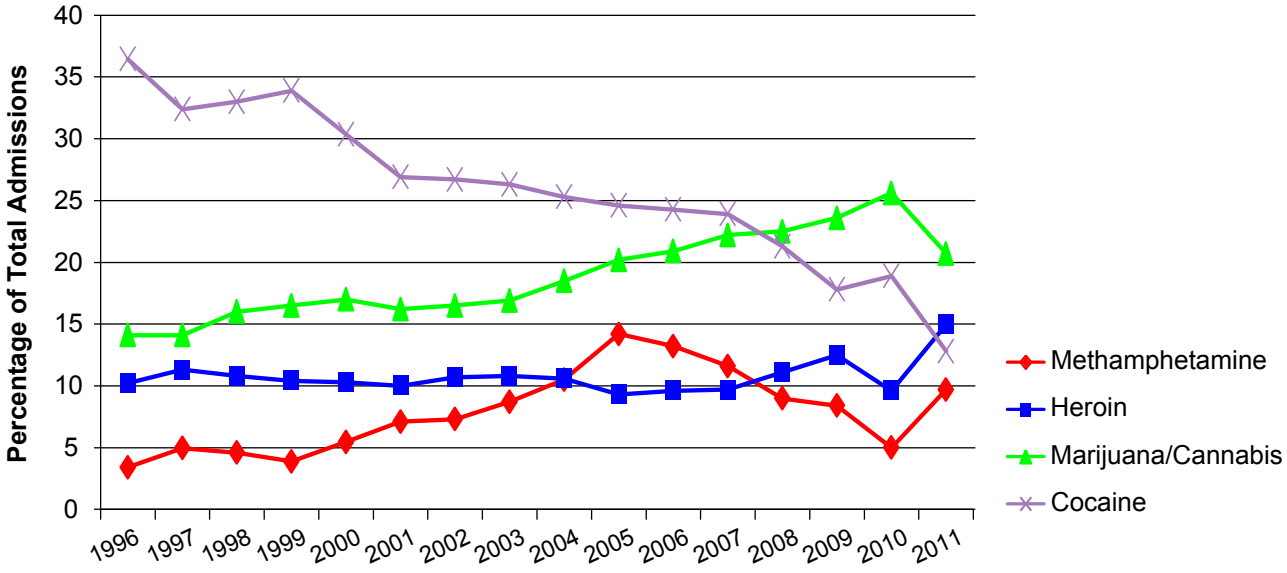
SOURCES: Texas Poison Control Network; Texas Department of State Health Services (DSHS); Texas Department of Public Safety (DPS); NFLIS, DEA

Exhibit 22. Percentage of Admissions to Texas DSHS-Funded Treatment, for Select Drugs, on the Border: 1996–2011



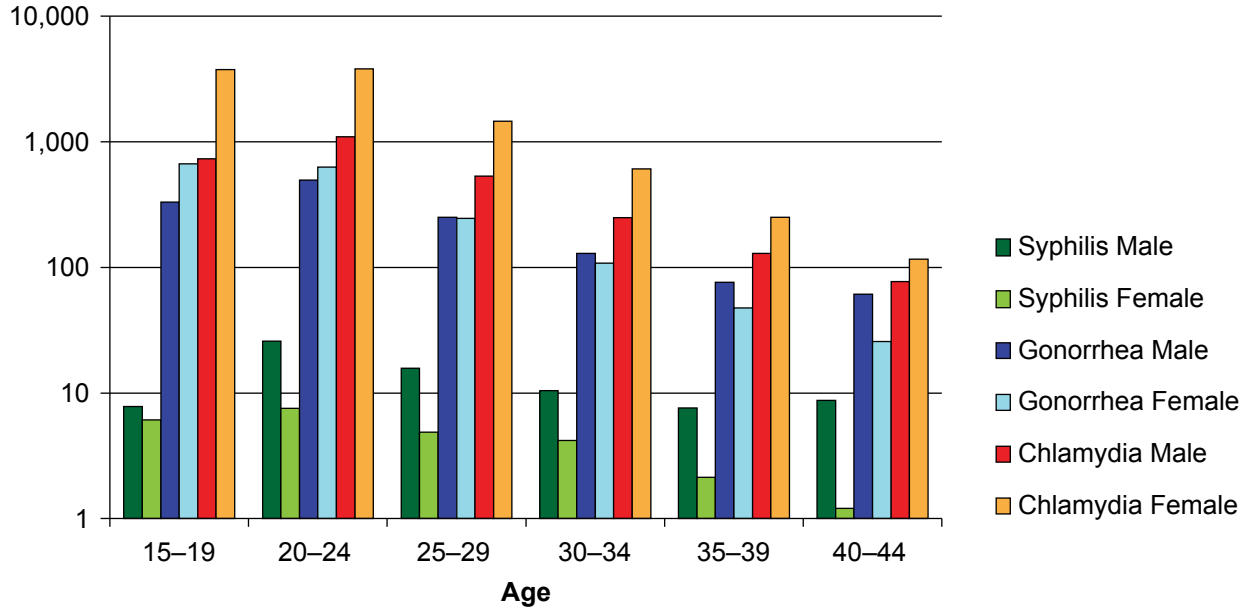
SOURCE: Texas Department of State Health Services (DSHS), analysis by J.C. Maxwell

Exhibit 23. Percentage of Admissions to Texas DSHS-Funded Treatment, for Select Drugs, Nonborder Areas: 1996–2011



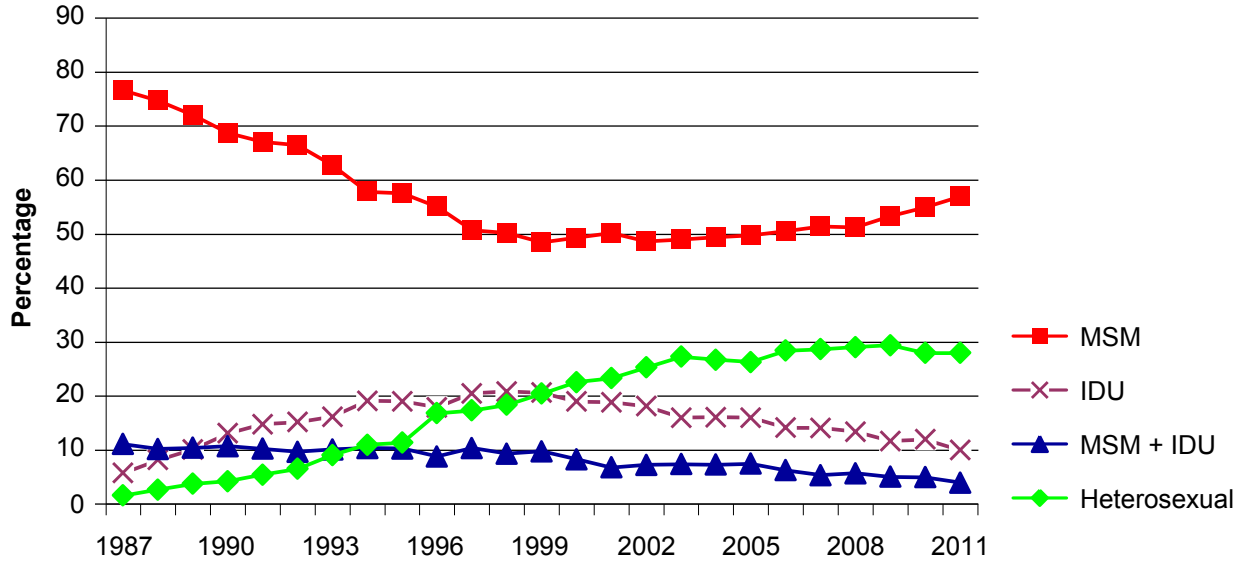
SOURCE: Texas Department of State Health Services (DSHS), analysis by J.C. Maxwell

Exhibit 24. Texas STD Case Rates, by Age: 2011



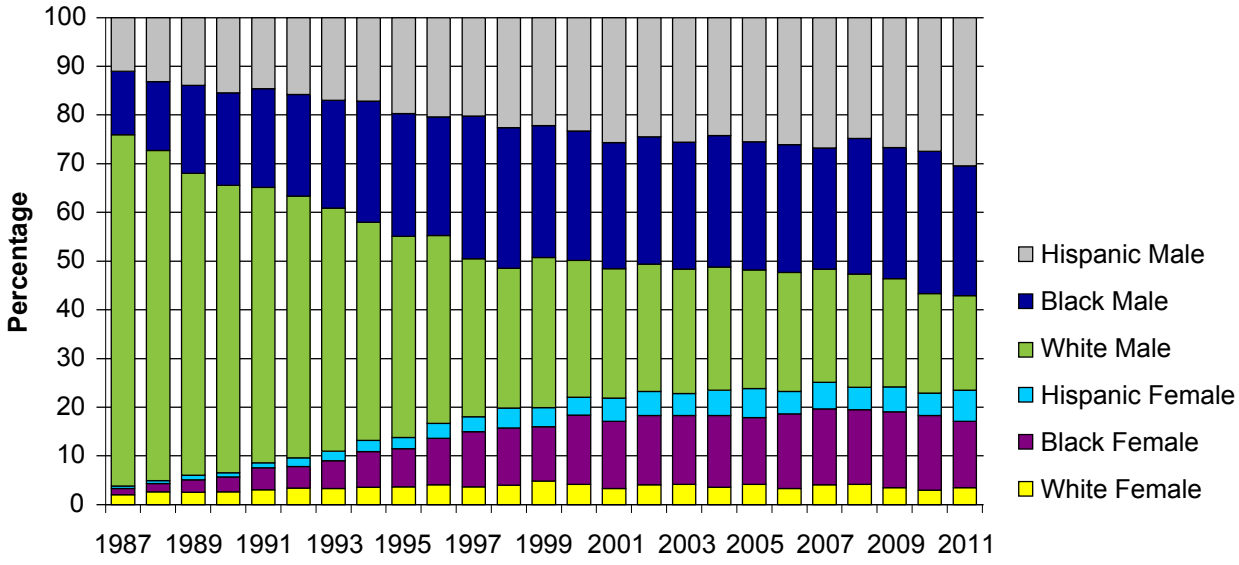
SOURCE: Texas Department of State Health Services (DSHS)

Exhibit 25. Percentage of AIDS Cases by Mode of Exposure in Texas: 1987–First Half of 2011 (Cases with Risk Not Classified Excluded)



Notes: MSM=men who have sex with men; IDU=injection drug user.
SOURCE: Texas Department of State Health Services (DSHS)

Exhibit 26. Percentage of Male and Female AIDS Cases by Race/Ethnicity in Texas: 1987–First Half of 2011



SOURCE: Texas Department of State Health Services (DSHS)

Appendix 1. Characteristics of Clients at Admission to DSHS-Funded Treatment Programs in Texas: 2011[1]

	Total Admissions	% of All Admissions	Average Age	Av. Lag (Yrs) 1st Use to Admission	% Black	% White	% Hispanic
All Drugs	74,435	100.0	32.6	14.3	18.9	75.9	34.78
Alcohol	21,556	29.0	38.8	23.2	12.8	82.0	32.1
Alprazolam	992	1.3	27.4	7.3	16.9	54.6	28.5
Amphetamines	2,066	2.8	33.2	12.4	2.9	92.5	13.8
Marijuana/Cannabis	17,723	23.8	22.5	8.5	27.5	67.0	46.9
Cocaine	4,990	6.7	33.7	12.2	28.5	65.6	46.8
Crack Cocaine	5,632	7.6	40.9	15.7	52.2	45.6	18.2
Codeine	109	0.2	29.6	8.8	40.4	57.8	13.8
Ecstasy	137	0.2	22.8	4.3	29.9	67.2	34.3
Heroin	9,542	12.8	32.4	11.2	7.4	84.3	50.8
Hydrocodone	3,102	4.2	33.7	9.2	8.3	88.6	17.8
Hydromorphone	222	0.3	33.4	7.6	0	97.7	0
Methamphetamine	4,413	5.9	32.1	11.4	1.8	95.6	15.8
Nonprescription Methadone	180	0.2	33.8	6.9	2.2	93.9	14.4
Other Benzodiazepines	113	0.2	30.5	9.8	13.3	85.8	27.4
Other Opiates	2,047	2.8	33.6	10.3	5.4	78.9	20.3
Oxycodone	342	0.5	31.0	7.4	1.5	96.5	9.6
PCP	595	0.8	29.7	9.7	91.3	5.9	5.0

	% Male	% Using Needles	% Use Daily	% Employed Full time	% No Legal Problem	% Homeless	Av. Yrs Education
All Drugs	59.4	13.9	40.7	12.0	49.4	10.6	12.0
Alcohol	67.9	0.0	45.6	18.2	47.4	23.2	13.0
Alprazolam	34.3	0.0	41.7	5.9	41.8	7.3	12.5
Amphetamines	48.3	34.7	28.0	13.9	33.0	12.4	12.7
Marijuana/Cannabis	71.1	0.0	24.8	12.4	22.4	8.5	11.5
Cocaine	52.2	8.2	19.1	14.8	39.5	12.2	12.3
Crack Cocaine	46.7	0.5	41.6	6.4	51.8	15.7	12.6
Codeine	64.2	0.0	33.9	13.8	26.6	8.8	13.0
Ecstasy	53.3	0.0	15.3	8.0	32.1	4.3	12.0
Heroin	59.4	78.7	78.7	5.2	65.7	11.3	12.3
Hydrocodone	34.8	0.4	71.3	9.5	62.7	9.2	13.0
Hydromorphone	46.8	88.8	77.0	7.7	67.1	7.6	13.4
Methamphetamine	37.5	36.1	29.5	12.0	43.0	11.4	12.6
Nonprescription Methadone	48.3	6.1	73.3	8.9	63.9	6.9	13.5
Other Benzodiazepines	41.6	0.0	53.1	9.7	51.3	9.8	13.1
Other Opiates	47.1	16.9	68.2	11.1	62.8	10.3	13.2
Oxycodone	56.7	16.7	64.6	9.9	68.1	7.4	13.5
PCP	43.9	0.0	27.4	8.4	39.3	9.7	12.3

[1]Only drugs with more than 100 admissions are included in this table.
SOURCE: Texas Department of State Health Services (DSHS)

INTERNATIONAL REPORTS

Current Drug Trends in Australia

Lucy Burns, Ph.D., Natasha Sindicich, and Amanda Roxburgh[1]

ABSTRACT

Aims: To present trends in illicit drug use and related harms in Australia from the Drug Trends Monitoring program at the National Drug and Alcohol Research Centre. The focus is specifically on changes in the ecstasy market, the use of emerging psychoactive substances, updates on methamphetamine and cocaine use, and trends in prescription opioid misuse and related harms.

Methods: Analysis of data collected from two key national surveys conducted annually in Australia among the following: 1) people who reported ecstasy use on at least a monthly basis in the previous 6 months in the Ecstasy and Related Drugs Reporting System (EDRS) – 2011 survey (*N*=574); and 2) people who reported injecting drugs on at least a monthly basis in the previous 6 months in the Illicit Drug Reporting System (IDRS) – 2012 survey (*N*=868). In addition, analyses were conducted of the following: population data on drug use and routine data collections for drug market indicators (e.g., illicit drug seizures) and drug-related harms (e.g., the National Coroner's Information System).

Key Findings: The prevalence of past-year ecstasy use among the general population declined in 2010 (to 3 percent). Proportions of regular ecstasy users reporting ecstasy as their drug of choice was at an all-time low (at 27 percent, according to 2011 EDRS findings); this was predominantly due to low availability and low purity. Domestic production of ecstasy remained limited in Australia, and the number and weight of seizures of ecstasy at the border declined over the past 6 years.

Little is known about the use of these substances in the general population. A minority of EDRS participants reported having used some of these substances, with mephedrone being the most prevalent substance used (13 percent of participants, according to the 2011 EDRS survey).

Past-year methamphetamine use among the general population declined in 2010 (to 2.1 percent). Speed was the most commonly used form at the population level. There has been an upward trend in methamphetamine use among both EDRS and IDRS participants, which has largely been driven by crystal methamphetamine (used by 26 percent of the 2011 EDRS participants and 45 percent of the IDRS participants). Patterns of use remained sporadic. Numbers of detected clandestine laboratories producing methamphetamine locally were at an all-time high (703 were detected in 2010–2011).

Past-year cocaine use among the general population increased significantly in 2010 (to 2.1 percent); however, the majority of Australians used monthly or less frequently. Cocaine use among ERDS and IDRS participants has remained stable over the past few years (at 46 and 17 percent, respectively); use was infrequent. There have been high numbers of cocaine seizures detected at the Australian border over the past 4 years, along with several large single seizures (401 kilograms were detected in October 2010). Existing monitoring systems don't appear to be capturing the more frequent cocaine users in Australia.

[1]The authors are affiliated with the National Drug and Alcohol Research Centre at the University of North South Wales in Sydney, Australia.

Past-6-month injection of both morphine and oxycodone among IDRS participants has remained stable over the past 4 years (41 and 31 percent, respectively, in 2011), after increases occurred around 2006. During the period 2000–2009 there were 465 oxycodone-related deaths recorded in Australia. Only a minority (25 percent) of decedents had a recorded history of injection drug use, and the majority had a history of chronic pain (52 percent) and had been prescribed oxycodone (53 percent) at the time of death. Oxycodone-related mortality remained relatively low in Australia in comparison with trends seen in North America.

2011 Reports for the EDRS and IDRS can be found at:

http://ndarc.med.unsw.edu.au/resource/ecstasy-and-related-drugs-reporting-system-edrs-national-report-2011

http://ndarc.med.unsw.edu.au/resource/illicit-drug-reporting-system-idrs-national-report-2011

An overall report on drug trends in Australia from 2001 to 2011 can be found at:

http://ndarc.med.unsw.edu.au/resource/trends-drug-use-and-related-harms-australia-2001-2011-0

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Monitoring the Drug Situation in Canada: 2011

Judy Snider, M.Sc.[1]

INTRODUCTION

Monitoring the drug situation in Canada is based on analyses of Health Canada's data from many sources, including the following: the ongoing general population survey, Canadian Alcohol and Drug Use Monitoring Survey (CADUMS) and the student survey, Youth Smoking Survey (YSS); chemical analysis of exhibits from drug seizures (Drug Analysis Service [DAS] Laboratory Information Management System [LIMS]); and quantities of controlled substances based on requests for destruction captured in the Office of Controlled Substances Controlled Drugs and Substances Database (CDSD). These data provide a fairly comprehensive picture of the drug situation in Canada and are complemented by those captured by stakeholders, including nongovernment organizations, researchers, and the provinces and territories.

Data Sources

Multiple data sources were used to prepare this report:

- **CADUMS 2008, 2009, and 2010 Surveys.** Led by Health Canada, the CADUMS is the first ongoing general population survey on alcohol and drug use in Canada. The results provide a benchmark for tracking the evolution of the alcohol and drug situation in the general population, including the impact of the National Antidrug Strategy.

- **Canadian Addiction Survey (CAS) 2004.** The CAS, conducted in 2004 by the Canadian Centre on Substance Abuse (CCSA), was designed to provide detailed national and provincial estimates of alcohol and drug-related behaviors and outcomes.

- **YSS 2008–2009 and 2010–2011.** Health Canada's Youth Smoking Survey (YSS) was designed to measure smoking behaviours among youth; however, since 2002, it has also captured information on other substances consumed and supports the timely monitoring of alcohol and drug use among youth in grades 7–12.

- **DAS, LIMS 2005–2009.** Health Canada's DAS conducts chemical analyses of suspected illicit substances for cases proceeding to trial (e.g., where a "not guilty" plea is entered) or for other purposes. Numbers of seizures over time and regions are affected by the extent, focus, and effectiveness of interception/detection activities by police and border services (e.g., a targeted crackdown on methamphetamine will increase the number of arrests, but does not necessarily indicate increased presence or use of that drug). Caution is advised when interpreting these data. They underestimate the total number of illicit drug seizures, since they exclude guilty pleas and noncase seizures, and the full range of controlled substances found in a sample may not be captured in the LIMS database.

[1]The author is affiliated with Health Canada, Ottawa, Canada.

- **Office of Controlled Substances, CDSD 2004–2008.** Under the *Controlled Drugs and Substances Act,* Health Canada is responsible for authorizing the destruction of all controlled substances seized in Canada. As part of the request to destroy, law enforcement agencies provide information on the suspected substance seized, the charges being laid, and when the court proceedings are over, the disposition of the charges. All of this information is entered into the Controlled Drugs and Substances Database (CDSD). Typically, the request for destruction occurs once the substances are no longer required as evidence in court proceedings. There is a substantial lag time between the date when the substance was seized to the time it is entered into the CDSD database, since the data contained on the form is only entered into the CDSD when permission to destroy is requested, which may in fact be many months or even years after the actual seizure, depending on how long the related court processes take. This does not apply to "no case" seizures or requests for the disposal of marihuana plants both of which are processed more rapidly.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine (Including Cocaine and Crack Cocaine)

There has been no change in reported past-year cocaine use (approximately 1 percent) among Canadian adults (age 15 and older) between 2004 and 2010. However, there was a decrease in the prevalence of past-year use among youth age 15–24 (from 6 percent in 2004 to 3 percent in 2010) (exhibit 1). Among students in grades 7–12, there was a decrease in the prevalence of past-12-month cocaine use from 3 percent in 2008–2009 to 2 percent in 2010–2011.

Slightly fewer than 24,000 exhibits containing cocaine/crack cocaine were analyzed by the DAS laboratories in 2011; this represents a 27-percent decrease since the peak in 2007 (exhibit 1). From 2010 to 2011, there was a modest change in the number of exhibits analysed, with slight increases in British Columbia, Quebec, and Atlantic regions and slight decreases in Prairies, Ontario, and the Territories. Quantities of cocaine (in kilograms) seized and destroyed also decreased from 2007 to 2008.

Heroin

Past-year heroin use is not reportable among Canadians age 15 and older in the general population survey. Among students in grades 7–12, there was no difference in the prevalence of past-12-month heroin use (1 percent) between 2008–2009 and 2010–2011. Overall in Canada, the number of exhibits containing heroin increased in 2011, compared with 2010 (exhibit 2). Since 1983, the highest number of heroin exhibits analysed came from British Columbia, and since 2005, increases in the number of exhibits have been noted in Ontario. There was a decrease of approximately one-third in the number of heroin exhibits analyzed for British Columbia from 2008 to 2010, but they then rebounded in 2011. Quantities of heroin (in kilograms) seized and destroyed in Canada fluctuated between 2000 and 2008. The substantial increase in 2008 was due to increases in British Columbia, Alberta, and Ontario; the latter contributed 27 kilograms from a single seizure.

Psychoactive Pharmaceutical Drugs

There was no change in the prevalence of past-year pharmaceutical drug use (at 26 percent)—including medical use for such drugs as opioid pain relievers, stimulants, sedatives, or tranquilizers—among Canadians age 15 and older from 2009 to 2010 (exhibit 3). Among these users, 1 percent reported that they used such a drug to get high. This represents less than 1 percent of the Canadian population. In 2010–2011, 5 percent of students in grades 7–12 indicated that they had used a pharmaceutical drug (e.g., opioid pain reliever, stimulant, sedative, or tranquilizer) in the past year "to get high." This represented a significant decrease from 7 percent in 2008–2009. There was no change in the prevalence of past-year use of pain relievers "to get high" (approximately 4 percent) between the two surveys, while a statistically significant decrease was observed in the abuse of sedatives (from 2 to 1 percent) and of stimulants (from 4 to 2 percent).

In Canada, the number of exhibits containing prescription opioids has increased since 2005 (exhibit 3); this is noted in most regions in Canada. The number of exhibits analyzed in Ontario exceeds all other regions; however, the increase in the number of exhibits there declined between 2010 and 2011. Exhibits containing oxycodone accounted for the increasing percentage of prescription opioid exhibits analysed in Canada. In 2011, they represented 56 percent (an increase from 16 percent in 2000) of prescription opioid exhibits in Canada and almost 70 percent (an increase from 30 percent in 2000) of those in Ontario.

A single large seizure of over 1.4 million oxycodone tablets in Ontario resulted in a spike in of the number of tablets seized in 2006. When this seizure is excluded, there remains an increasing trend in quantities of tablets seized and destroyed since 2003.

Amphetamine and Methamphetamine

Past-year methamphetamine (methamphetamine and crystal methamphetamine) use is not reportable among Canadians age 15 and older in the general population survey, and less than 1 percent reported using speed (amphetamine) over the same time period (exhibit 4). Among students in grades 7–12, there was no difference in the prevalence of past-12-month amphetamine (e.g., speed, methamphetamine, ice, or crystal methamphetamine) use (at 3 percent) between 2008–2009 and 2010–2011.

The number of exhibits containing methamphetamine has increased year over year from 2005 (6,198) to 2011 (9,625) (exhibit 4). From 2005 to 2011, there was a steady increase in the exhibits that were analyzed for Quebec that contained methamphetamine. A slight increase was seen in most jurisdictions between 2010 and 2011. Methamphetamine seizures reported in weight and numbers of tablets accounted for more than 98 percent of all requests for destruction of methamphetamine. Methamphetamine seizures in kilograms have increased over time (420 kilograms were seized in 2008); British Columbia has been the primary contributor to these national amounts. Tablets also increased until 2007, and then decreased slightly in 2008, with a large seizure in Ontario and Quebec accounting for slightly more than 40 percent of the methamphetamine tablets seized that year.

Cannabis

Cannabis continued to be the dominant illicit drug in Canada, based on both self-reported past-year use and from laboratory analysis of exhibits from seized substances (exhibit 5). Among the general Canadian population age 15 and older, reported past-year use of cannabis decreased from 14 percent in 2004 to 11 percent in 2010 (exhibit 5). Among students in grades 7–12, there was a decrease in the prevalence of past-12-month cannabis use from 27 percent in 2008–2009 to 21 percent in 2010–2011. Decreases were also seen in the grade subgroups (grades 7–9 and 10–12).

The DAS analyzes more exhibits from cannabis seizures than from any other substance seized in Canada (approximately 57,000 exhibits in 2011); this has not changed since 2010 (exhibit 1). Ontario and Quebec showed modest increases from 2010 to 2011, and all other regions showed slight decreases. There has been a steady decrease in the number of kilograms of marijuana seized at the national level since 2002 (data not shown). The increase in the number of plants destroyed in 2005 was largely due an increase in plants seized in Ontario. Overall, plants seized and destroyed have remained below 2005 levels.

Ecstasy

Approximately 1 percent of Canadians (age 15 and older) reported past-year ecstasy use in 2010; this has not changed over time (exhibit 6). Among students in grades 7–12, there was a decrease in the prevalence of past-12-month ecstasy use from 6 percent in 2008–2009 to 5 percent in 2010–2011.

Overall in Canada, the number of exhibits containing ecstasy (MDMA [3,4-methylenedioxymethamphetamine], MDA [3,4-methylenedioxyamphetamine], MDEA [methylenedioxyethylamphetamine], and MMDA [3-methoxy-4,5-methylenedioxyamphetamine]) decreased by 38 percent in 2011 (exhibit 6). After increasing in most regions since 2005, the number of ecstasy exhibits decreased in most regions in 2011. Although Quebec and Ontario had large decreases in the number of exhibits containing ecstasy (39 percent), they continued to have the highest number of ecstasy exhibits of any region in the country. The quantity of ecstasy seized as tablets has been mostly stable over the last 5 years, with the exception of 2007, when a single seizure of 720,000 tablets of MDMA occurred in Ontario and resulted in a large increase in quantities of tablets seized in that year.

Hallucinogens

The past-year use of hallucinogens (including salvia) among Canadians age 15 and older remained stable in 2010 at 1 percent. There was also no change in the prevalence in the reported use of these substances (4 percent) among youth (age 15–24) since 2010. Among students in grades 7–12, there was a decrease in the prevalence of past-12-month hallucinogen (including salvia) use from 9 percent in 2008–2009 to 6 percent in 2010–2011. Decreases were also seen in the grade subgroups (grades 7–9 and 10–12)

After remaining stable from 2008 to 2010, the number of exhibits containing hallucinogens (excluding salvia) decreased in 2011. Although not a controlled substance in Canada, a very small number of exhibits containing salvia have been analyzed annually since 2006.

Emerging Substances

In 2011, Health Canada monitored emerging substances either through surveys (e.g., Dextromethorphan®), exhibit analyses (e.g., drugs from the 2C phenethylamine family, tryptamine, MDPV [3,4-methylenedioxypyrovalerone]), or both (synthetic cannabinoids, salvia, BZP [1-benzylpiperazine], TFMPP [3-(trifluoromethylphenyl)piperazine], and mephedrone). Results from the laboratory analyses of seized substances identified that the numbers of exhibits containing BZP and/or TFMPP have continued to increase over time, with the largest number of exhibits (2,679) containing these substances recorded in 2011 (exhibit 7). The relatively low number of exhibits may be due to the fact that most of these substances, except 2C-B (a synthetic substance, 2.5-dimethoxy-4-bromophenylethylamine) and synthetic cannabinoids (schedule II), are not currently controlled in Canada.

Early Warning Systems

Field work for Health Canada's national high-risk population survey began in April 2012, and included six cities (Calgary, Regina, Winnipeg, Toronto, Montreal, and Halifax) in five regions (Atlantic Canada, Québec, Ontario, Prairies, and Alberta). Two waves of data (summer and late fall) will be collected in 2012.

CONCLUSIONS

Monitoring the drug situation in Canada continues to improve with the advent of new surveillance tools and increases in the capacity to carry out data analyses. These data provide a fairly comprehensive picture of the drug situation in Canada. However, the standard caveats associated with surveys apply (e.g., underreporting, response rates, and cell phones), and the results of analyses of exhibit and destruction data may not reflect actual trends in illicit drug availability. Overall positive results are seen with the overall decrease in self-reported substance use by the Canadian general and student population.

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Exhibit 1. Cocaine Indicators for Canada: 2004–2011

Exhibit 1a. Prevalence of Past-Year Cocaine Use, Grades 7–12, Canada: 2008–2009 and 2010–2011

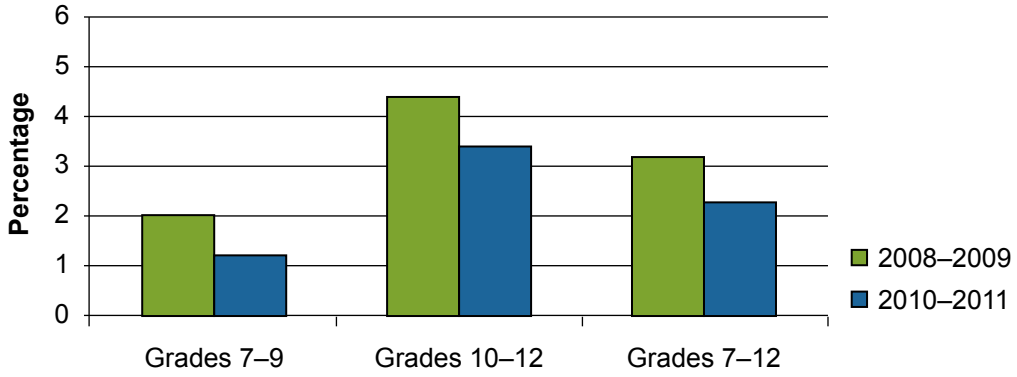


Exhibit 1b. Prevalence of Past-Year Cocaine and Crack Cocaine Use, Canada: 2004, 2008–2010

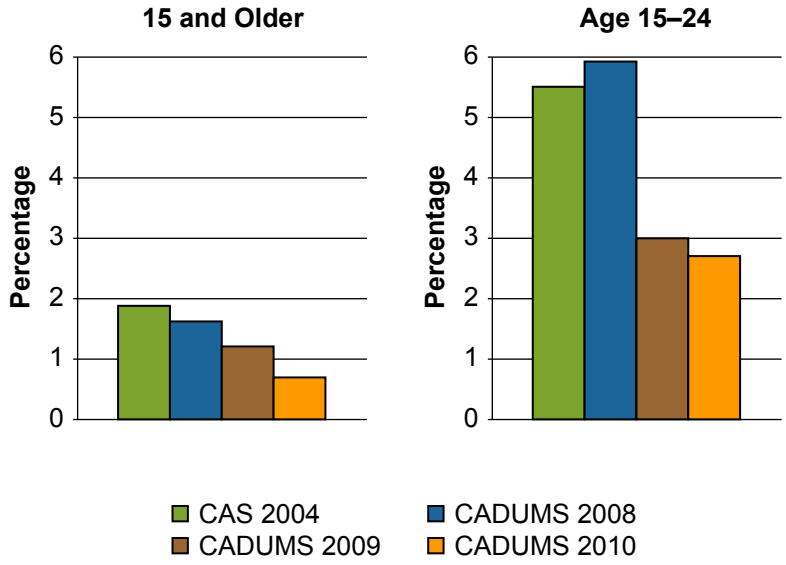


Exhibit 1 (continued). Cocaine Indicators for Canada: 2004–2011

Exhibit 1c. Cocaine: Quantity Seized–Requests for Destruction (Kilograms), Canada: 2004–2008

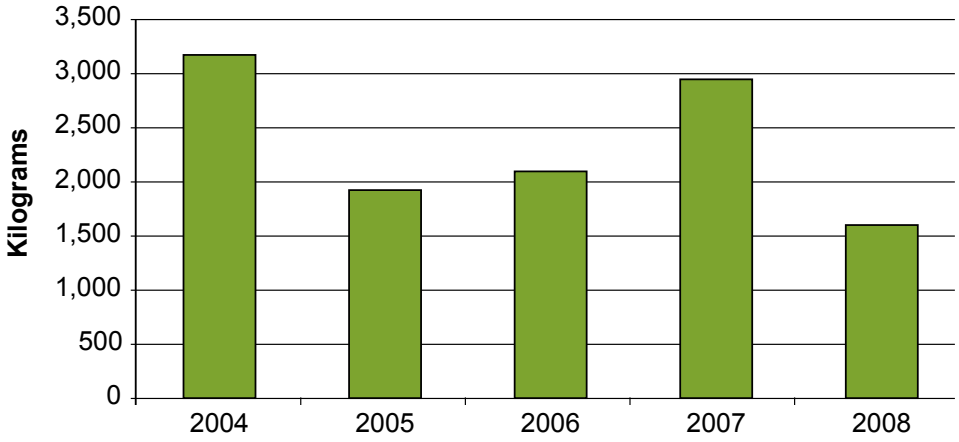
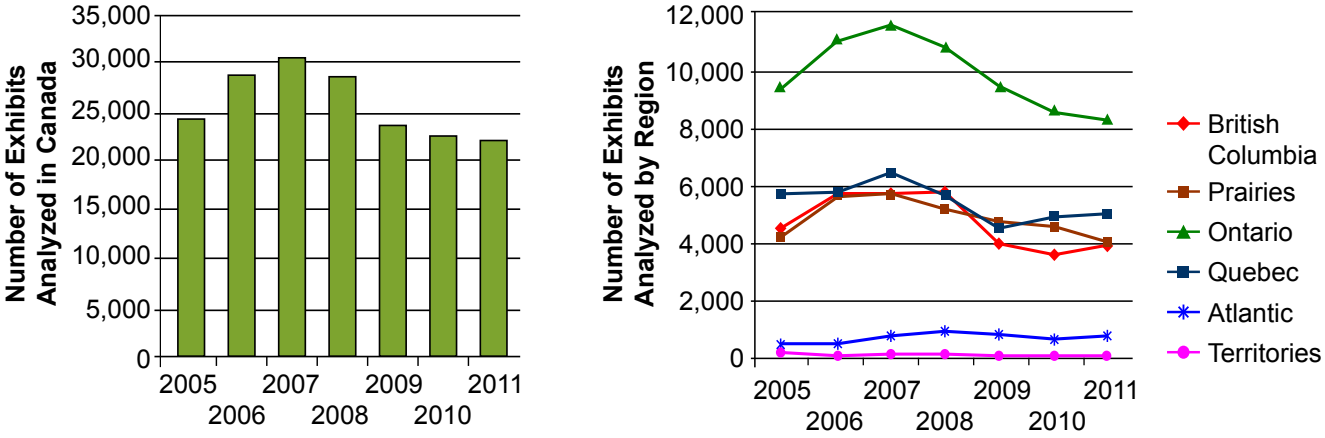


Exhibit 1d. Chemical Analyses of Exhibits Containing Cocaine and Crack Cocaine, Canada: 2005–2011



Notes:
In the CADUMS, substances were defined as follows:
Cocaine/crack includes freebase, powder, and snow.
In the CAS, substances were defined as follows:
Cocaine/crack.
In the YSS, substances were defined as follows:
Cocaine includes freebase, powder, crack (slang: “coke,” “crack,” “blow,” “snow”).
In the LIMS, substances were defined as follows:
Cocaine includes cocaine, cocaine base, cocaine salt, cocaine calculated as the base, and cocaine calculated as the hydrochloride.
In the CDSD, substances were defined as follows:
Cocaine includes seizures suspected to be or to contain cocaine.
SOURCES: Health Canada: Canadian Alcohol and Drug Use Monitoring Survey (CADUMS), 2008, 2010; Canadian Centre on Substance Abuse: Canadian Addiction Survey (CAS) 2004; Health Canada: Youth Smoking Survey (YSS) 2008–2009, 2010–2011; Health Canada: Drugs Analysis Service (DAS) - Laboratory Information Management System (LIMS) 2005–2011; Health Canada: Office of Controlled Substances (OCS)—Controlled Drugs and Substances Database (CDSD) 2004–2008

Exhibit 2. Heroin Indicators for Canada: 2005–2011

Exhibit 2a. Prevalence of Past-Year Heroin Use, Grades 7–12, Canada: 2008–2009 and 2010–2011

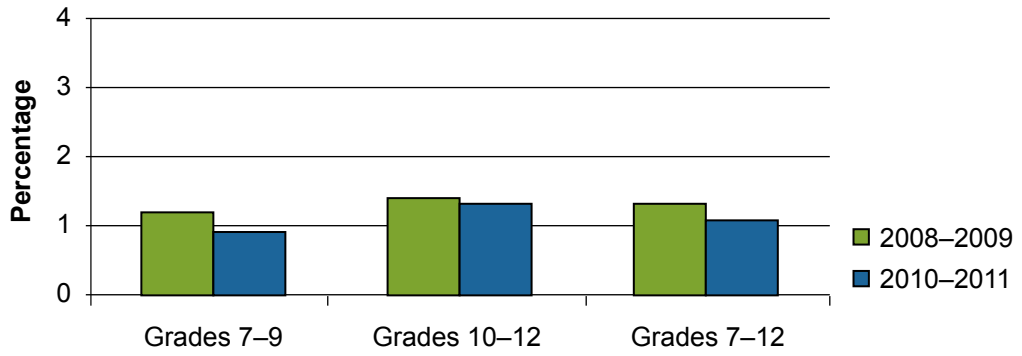
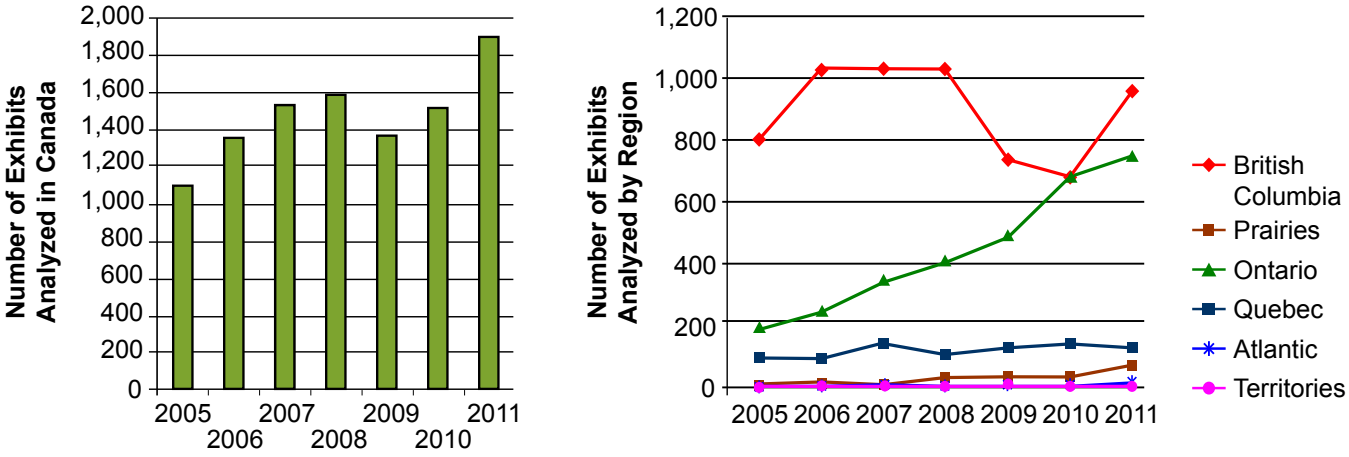


Exhibit 2b. Chemical Analyses of Exhibits Containing Heroin, Canada: 2005–2011



Notes:
In the YSS, substances were defined as follows:
Heroin includes: heroin, heroin base, and heroin salt. Also known as “smack,” “H,” “junk,” “crank.”
In the LIMS, substances were defined as follows:
Heroin includes heroin, heroin base, and heroin salt.
In the CDSD, substances were defined as follows:
Heroin includes seizures suspected to be or to contain heroin.
SOURCES: Health Canada: Youth Smoking Survey (YSS) 2008–2009 and 2010–2011; Health Canada: Drugs Analysis Service (DAS)—Laboratory Information Management System (LIMS) 2005–2011; Health Canada: Office of Controlled Substances (OCS)—Controlled Drugs and Substances Database (CDSD) 2004–2008

Exhibit 3. Indicators for Pyschoactive Pharmaceuticals and Prescription Opiods for Canada: 2004–2011

Exhibit 3a. Prevalence of Past-Year Psychoactive Pharmaceutical Drug Use to Get High, Grades 7–12, Canada: 2008–2009 and 2010–2011

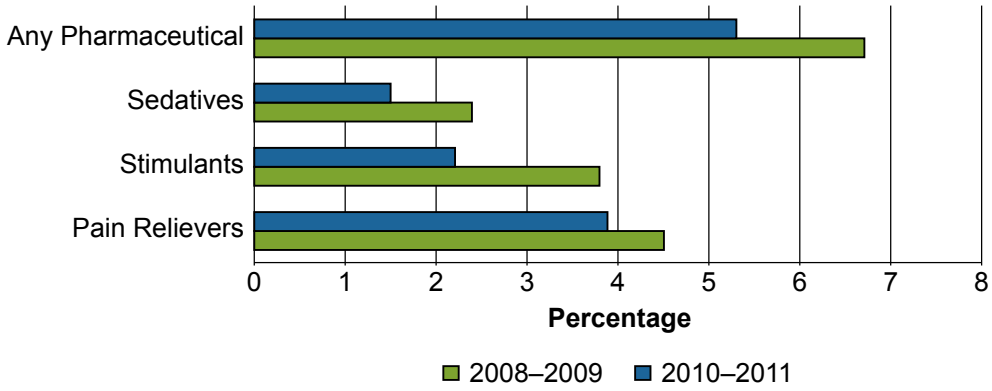


Exhibit 3b. Prevalence of Psychoactive Pharmaceutical Drug Use, Past-Year, 15 and Older, Canada: 2008 and 2009

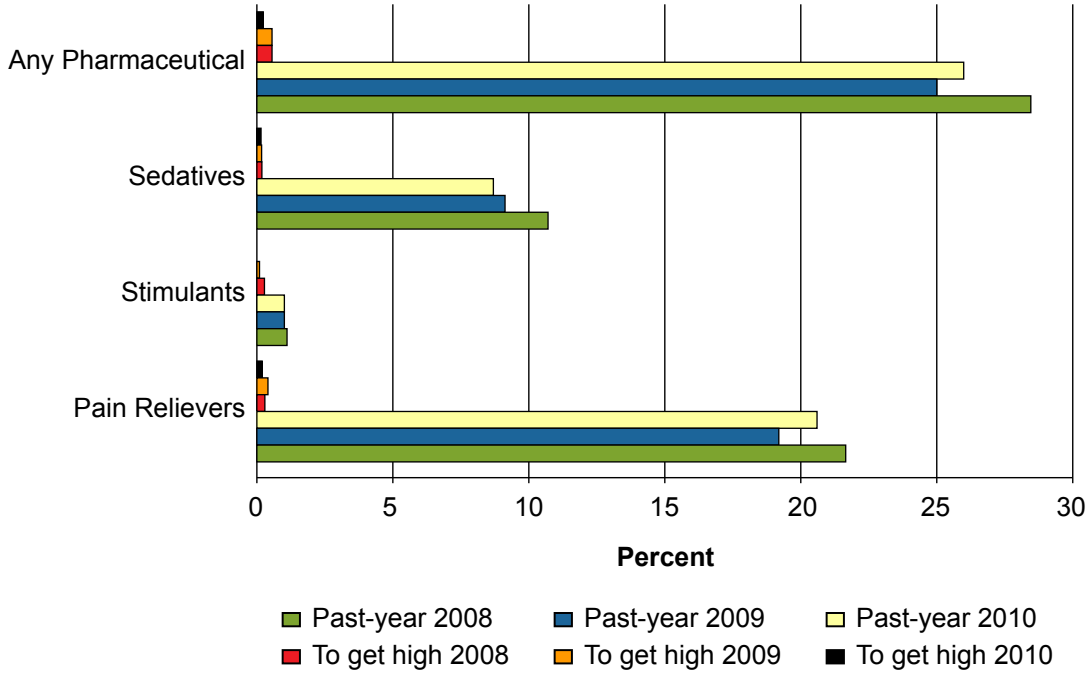


Exhibit 3 (continued). Indicators for Pyschoactive Pharmaceuticals and Prescription Opiods for Canada: 2004–2011

Exhibit 3c. Prescription Opioids: Number of Exhibits Analyzed by Region, Canada: 2005–2011

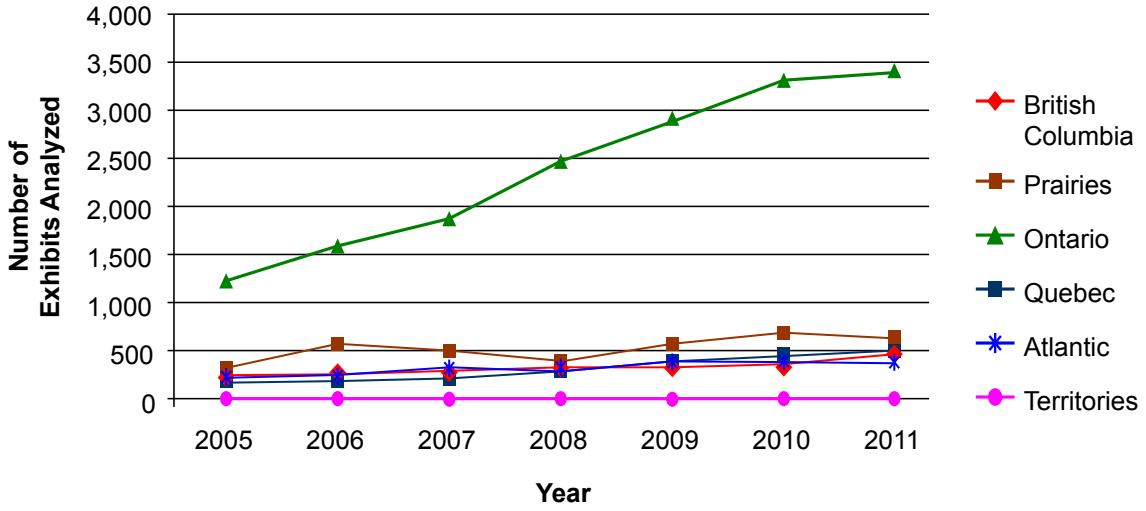


Exhibit 3d. Trends in Exhibits Analyzed for Selected Psychoactive Pharmaceuticals, Canada: 2005–2010

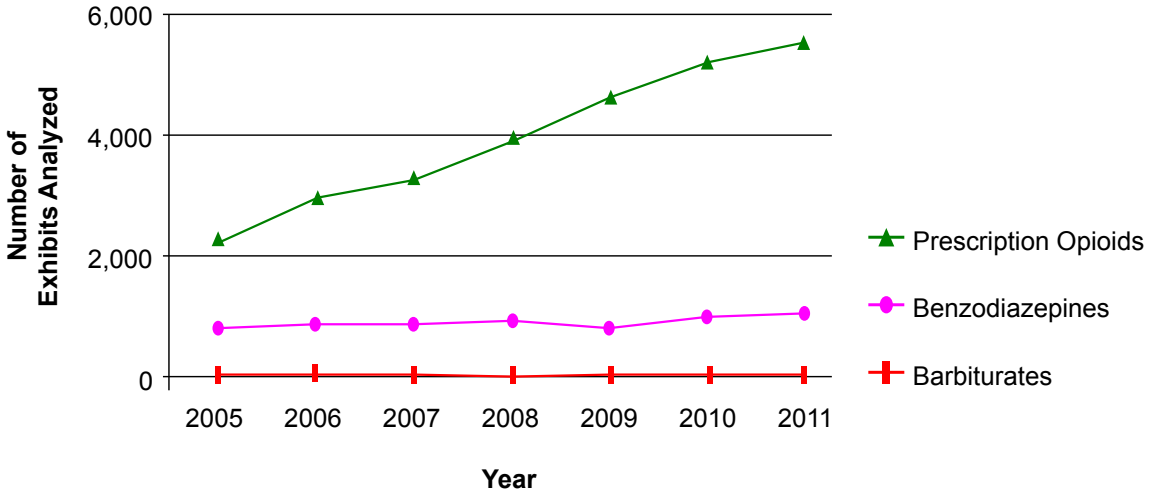
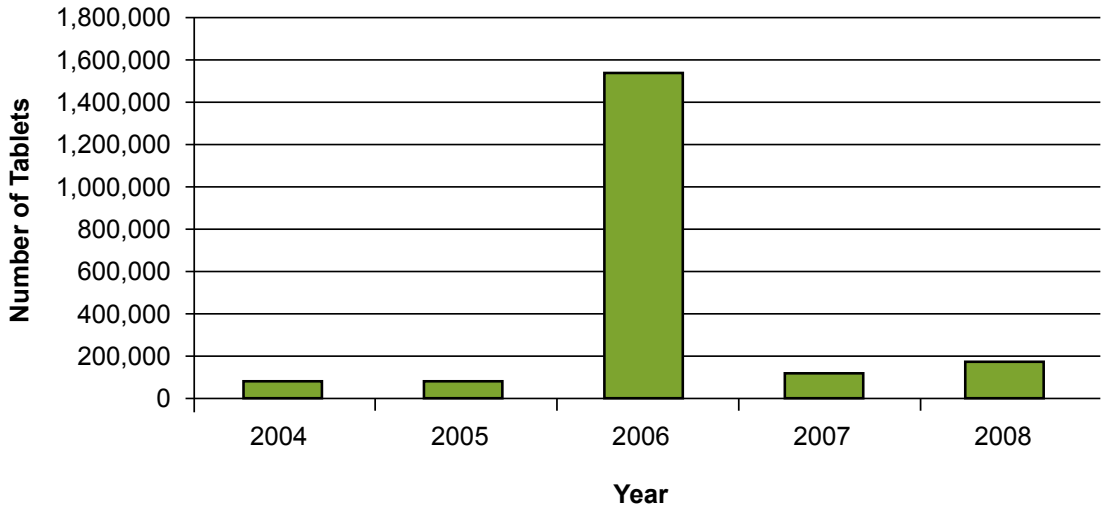


Exhibit 3 (continued). Indicators for Pyschoactive Pharmaceuticals and Prescription Opiods for Canada: 2004–2011

Exhibit 3e. Pharmaceutical Opioids: Quantity Seized—Requests for Destruction (Tablets), Canada: 2004–2008



Notes:
In the CADUMS, substances were defined as follows:
Stimulants obtained from a doctor such as Ritalin®, Concerta®, Adderall®, Dexedrin®, or others.
Sedatives obtained from a doctor such as Valium®, Ativan®, Xanax®, or others.
Pain relievers a doctor or dentist prescribed such as Percodan®, Demerol®, OxyContin®, or pain relievers with codeine obtained from a pharmacist without a prescription.
In the YSS, substances were defined as follows:
Stimulants such as diet pills and stay awake pills ("uppers," "bennies") or medicine to treat ADHD (such as Ritalin, Concerta®, Adderall®, Dexedrine®) to get high.
Sedatives or tranquilizers (such as Valium®, Ativan®, Xanax®, also known as "tranqs," "downers") to get high.
Pain relievers (such as Percocet®, Percodan®, Demerol®, OxyContin®, or any pain reliever with codeine) to get high.
In the LIMS, substances were defined as follows:
Prescription opioids include alfentanil, buprenorphine, butorphanol, codeine, codeine salt, diphenoxylate, fentanyl, hydrocodone, hydromorphone, methadone, morphine, morphine salt, normethadone, oxycodone, pentazocine, pethidine, and sufentanil. These include pharmaceuticals available by prescription in Canada.
Barbiturates include amobarbital, barbital, barbituric acid, butalbital, butabarbital, butobarbital, cyclobarbital, methabarbital, mephobarbital, pentobarbital, phenobarbital, secobarbital, and thiopental.
Benzodiazepines include alprazolam, bromazepam, clobazam, clonazepam, clorazepam, diazepam, flurazepam, chlordiazepoxide, lorazepam, midazolam, nitrazepam, nordazepam, olanzapine, oxazepam, temazepam, and triazolam. These are the "pharmaceutical" benzodiazepines.
Codeine obtained from a pharmacist without a prescription (such as Robaxacet 8® or others).
In the CDSD, substances were defined as follows:
Phamaceutical opioids includes seizures suspected to be a pharmaceutical opioid.
SOURCES: Health Canada: Canadian Alcohol and Drug Use Monitoring Survey (CADUMS), 2008, 2010; Health Canada: Youth Smoking Survey (YSS) 2008–2009 and 2010–2011, Health Canada: Drugs Analysis Service (DAS)—Laboratory Information Management System (LIMS) 2005–2011, Health Canada: Office of Controlled Substances (OCS)—Controlled Drugs and Substances Database (CDSD) 2004–2008

Exhibit 4. Indicators for Amphetamine and Methamphetamine for Canada: 2004–2011

Exhibit 4a. Chemical Analyses of Exhibits Containing Methampehtamine, Canada: 2005–2011

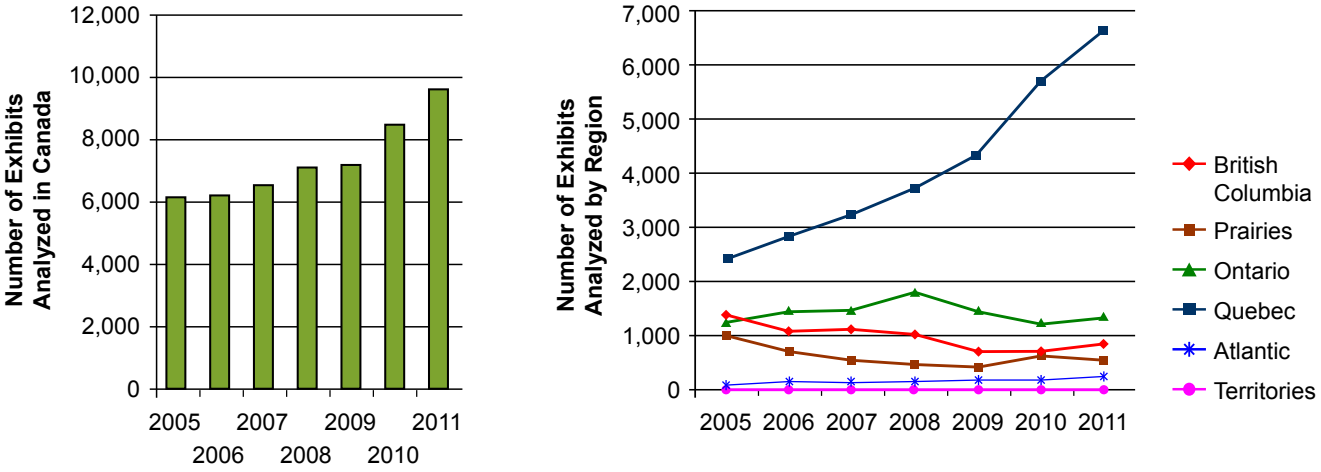


Exhibit 4b. Prevalence of Past-Year Amphetamine Use, Grades 7–12, Canada: 2008–2009 and 2010–2011

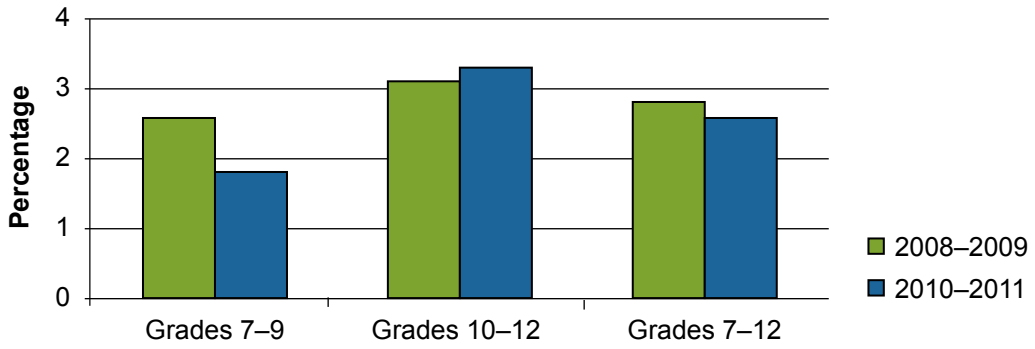
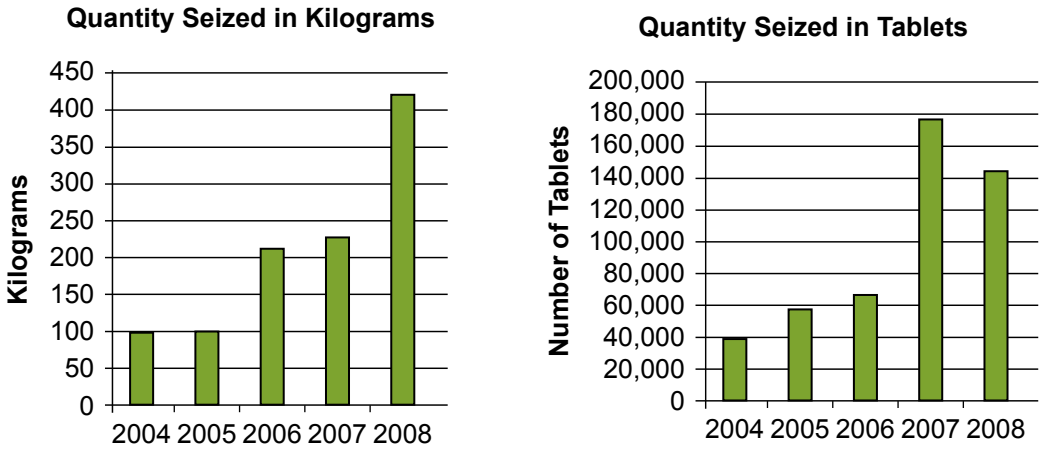


Exhibit 4 (continued). Indicators for Amphetamine and Methamphetamine for Canada: 2004–2011

Exhibit 4c. Methamphetamine: Quantity Seized—Requests for Destruction, Canada: 2004–2008



Notes:
In the YSS, substances were defined as follows:
Amphetamine (speed, methamphetamine, ice, or crystal methamphetamine).
In the LIMS, substances were defined as follows:
Methamphetamine includes methamphetamine, methamphetamine calculated as the base, and methamphetamine calculated as the hydrochloride.
In the CDSD, substances were defined as follows:
Methamphetamine includes seizures suspected to be methamphetamine.
SOURCES: Health Canada: Youth Smoking Survey (YSS) 2008–2009 and 2010–2011, Health Canada: Drugs Analysis Service (DAS)—Laboratory Information Management System (LIMS) 2005–2011, Health Canada: Office of Controlled Substances (OCS)—Controlled Drugs and Substances Database (CDSD) 2004-–2008

Exhibit 5. Cannabis Indicators for Canada: 2004–2011

Exhibit 5a. Prevalence of Past-Year Cannabis Use, Canada 2004, 2008–2010

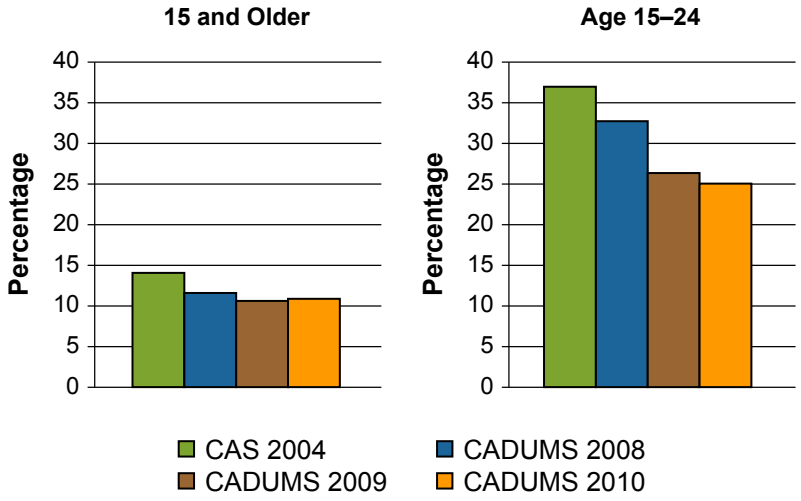


Exhibit 5b. Prevalence of Past-Year Cannabis Use, Grades 7–12, Canada: 2008–2009 and 2010–2011

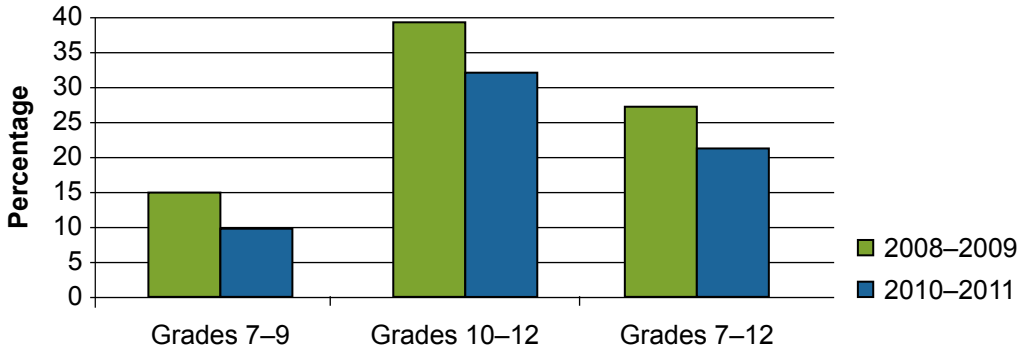


Exhibit 5 (continued). Cannabis Indicators for Canada: 2004–2011

Exhibit 5c. Cannabis: Quantity Seized–Requests for Destruction, Canada: 2004–2008

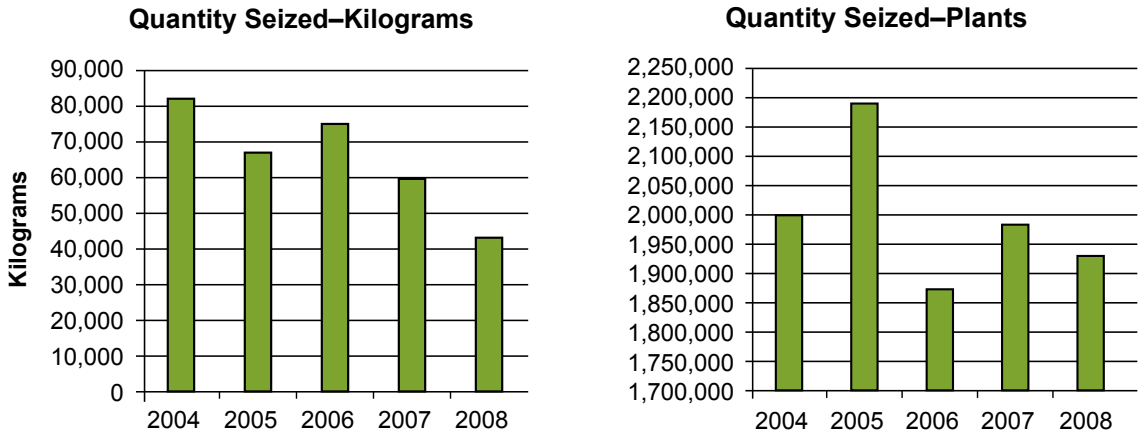
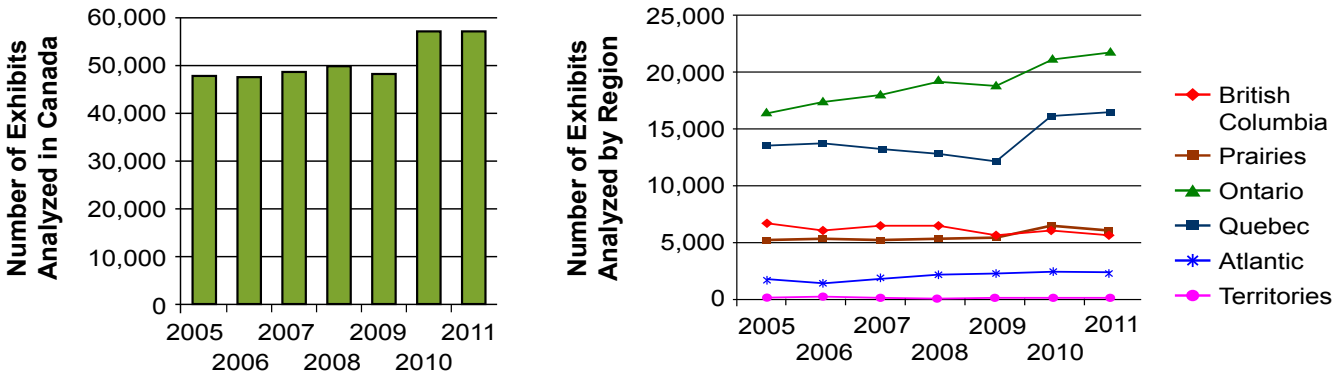


Exhibit 5d. Chemical Analyses of Exhibits Containing Cannabis, Canada: 2005–2011



Notes:
In the CADUMS, substances were defined as follows:
Cannabis refers to marijuana, hashish, hash oil, or other cannabis derivatives.
In the CAS, substances were defined as follows:
Cannabis refers to cannabis, marijuana, or hashish.
In the YSS, substances were defined as follows:
Cannabis refers to marijuana, hashish, hash oil, or other cannabis-based products.
In the LIMS, substances were defined as follows:
Cannabis includes marijuana, cannabis resin, and cannabis resin (liquid).
In the CDSD, substances were defined as follows:
Marijuana includes seizures suspected to be cannabis other than cannabis resin and hash oil.
SOURCES: Health Canada: Canadian Alcohol and Drug Use Monitoring Survey (CADUMS), 2008, 2010; Canadian Centre on Substance Abuse: Canadian Addiction Survey (CAS) 2004; Health Canada: Youth Smoking Survey (YSS) 2008–2009 and 2010–2011, Health Canada: Drugs Analysis Service (DAS)—Laboratory Information Management System (LIMS) 2005–2011, Health Canada: Office of Controlled Substances (OCS)—Controlled Drugs and Substances Database (CDSD) 2004–2008

Exhibit 6. Ecstasy Indicators for Canada: 2004–2011

Exhibit 6a. Prevalence of Past-Year Ecstasy Use, Canada: 2004, 2008–2010

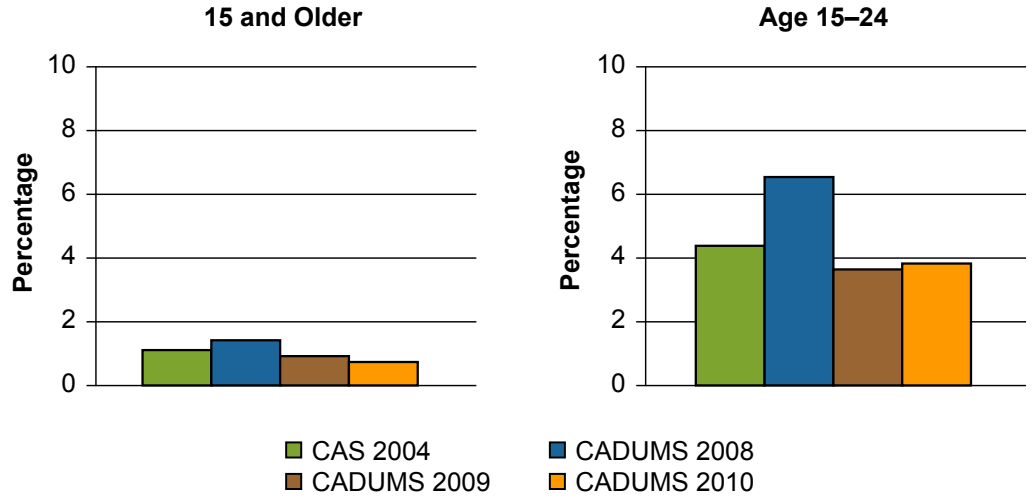


Exhibit 6b. Prevalence of Past-Year Ecstasy Use, Grades 7–12, Canada: 2008–2009 and 2010–2011

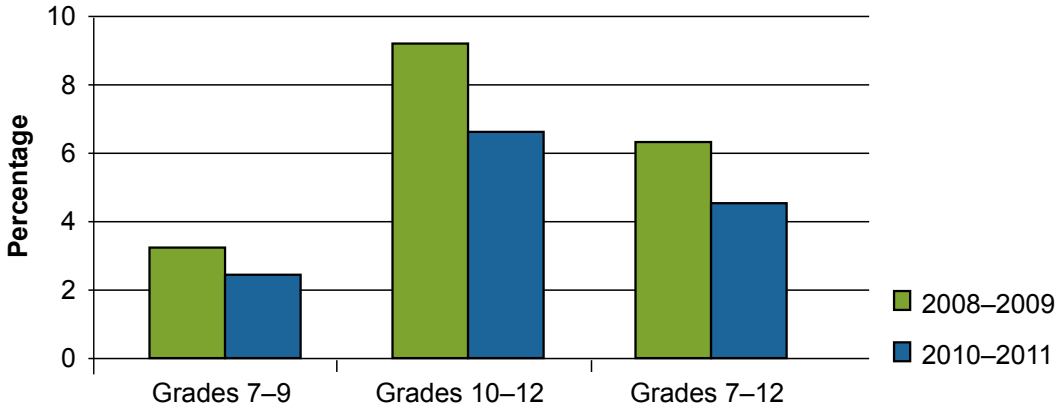


Exhibit 6 (continued). Ecstasy Indicators for Canada: 2004–2011

Exhibit 6c. Ecstasy: Quantity Seized–Requests for Destruction (Tablets), Canada: 2004–2008

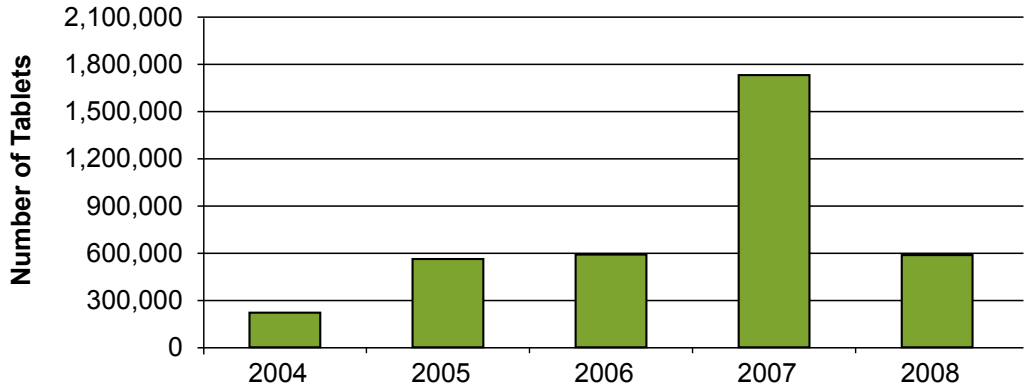
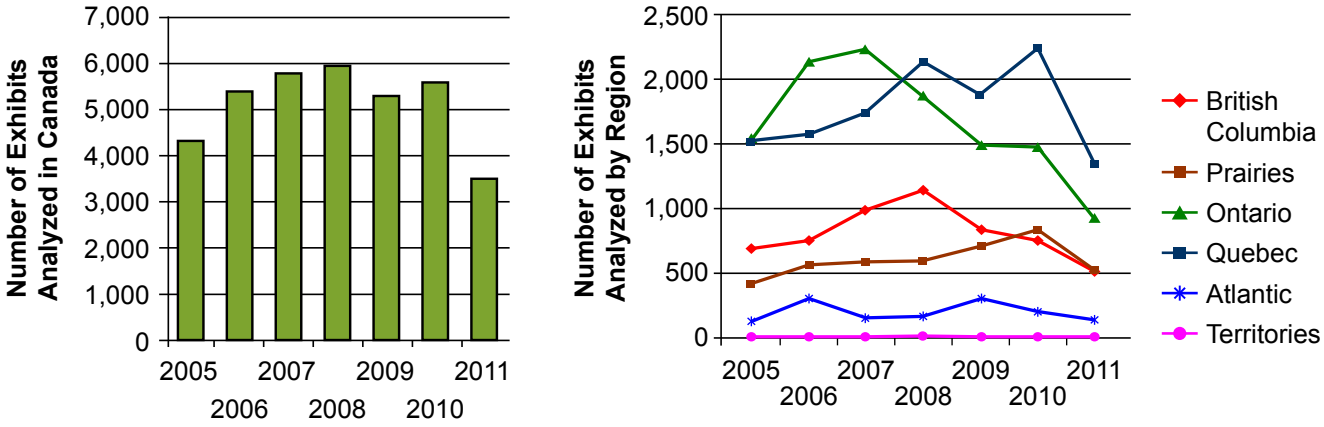


Exhibit 6d. Chemical Analyses of Exhibits Containing Ecstasy, Canada: 2005–2011



Notes:
In the CADUMS, substances were defined as follows:
Ecstasy includes MDMA, E, Xtc, Adam, and X.
In the CAS, substances were defined as follows:
Ecstasy (MDMA) or other similar drugs.
In the YSS, substances were defined as follows:
Ecstasy includes MDMA, E, XTC, Adam, or X.
In the LIMS, substances were defined as follows:
Ecstasy includes MDMA, MDA, MDEA, and MMDA.
In the CDSD, substances were defined as follows:
Ecstasy includes seizures suspected to be MDA, MDMA, MDEA, MMDA
SOURCES: Health Canada: Canadian Alcohol and Drug Use Monitoring Survey (CADUMS), 2008, 2010; Canadian Centre on Substance Abuse: Canadian Addiction Survey (CAS) 2004; Health Canada: Youth Smoking Survey (YSS) 2008–2009 and 2010–2011, Health Canada: Drugs Analysis Service (DAS)—Laboratory Information Management System (LIMS) 2005–2011, Health Canada: Office of Controlled Substances (OCS)—Controlled Drugs and Substances Database (CDSD) 2004–2008

Exhibit 7. Number of Exhibits Analyzed for Emerging Substances, Canada: 2005–2011

	2005	2006	2007	2008	2009	2010	2011
2C Family	6	66	53	103	187	272	490
Salvia	0	9	8	4	20	36	25
Tryptamine	11	5	124	239	148	40	970
BZP/TFMPP	0	8	151	1,161	2,366	1,921	2,679
MDPV	—	—	—	—	—	13	268
Mephedrone	—	—	—	—	—	10	7
Synthetic Cannabinoids	0	0	0	0	2	88	58

Notes:
In the LIMS, substances were defined as follows:
2C Family, with the exception of 2C-B, which is not controlled, and includes: Nexus (2C-B), 2C-E, 2C-I, 2C-T-2, 2C-T-7, DOB (4-BROMO-2,5-DMA) & DOI (an analog of amphetamine) (Õmethylbenzeneethanamine), namely, 4-iodo-2,5-dimethoxyamphetamine.
Tryptamine includes: 5-Methoxy-N,N-dimethyltryptamine, 5-Methoxy-N-methyl-N-isopropyltryptamine, 5-METHOXY-N, N-DIISOPROPYLTRYPTAMINE and 5-methoxy-alpha-methyltryptamine.
BZP includes: 1-Benzylpiperazine TFMPP includes Trifluoromethylphenylpiperazine; 1-(3-trifluoromethylphenyl)piperazine
Synthetic cannabinoids include JWH-018, JWH-073, JWH-122, JWH-210 and C8_CP47497 and JWH-250.
MDPV includes only MDPV.
Mephedrone is coded as MMCAT.
SOURCE: Health Canada, Drug Analysis Service, Laboratory Information Management System (LIMS), 2005–2011

Europe: Update on Drug Use, Trends, and Development

Paul Griffiths[1]

ABSTRACT

Background

Established in 1993, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) acts as the central reference point for drug information in Europe. Data are collected through a network of national focal points (Reitox), located in all 27 European Union (EU) member States, as well as Norway by special agreement, and the candidate countries Croatia and Turkey, using a set of structured tools. Areas of interest for monitoring activities span epidemiology and health statistics, activities in drug demand and drug supply reduction, and policy and legal developments. In addition, the EMCDDA is increasingly active in monitoring the appearance of new psychoactive substances. In this context, the agency has been assigned a key role in the detection and assessment of new drugs in the EU, under the terms of a Council Decision 2005/387/JHA, on the information exchange, risk assessment, and control of new psychoactive substances (see *http://www.emcdda.europa.ue/about*).

Update

Cannabis: Cannabis is the illicit drug most widely available in Europe, where it is both imported and produced domestically. Cannabis cultivation in Europe is widespread and appears to be increasing. All European countries reporting information to the EMCDDA mentioned domestic cannabis cultivation, although the scale and nature of the phenomenon seem to vary considerably. Data available from various sources point to a predominance of herbal cannabis throughout Europe. It appears to be the most used cannabis product in two-thirds of the reporting countries, while cannabis resin is the product of choice in the remaining one-third. In most European countries, cannabis use increased during the 1990s and early 2000s. Europe may now be moving into a new phase, as data from general population and school surveys point to an overall stable situation.

Cocaine: Cocaine remains the second most commonly used illicit drug in Europe, although prevalence levels and trends differ considerably between countries. High levels of cocaine use are observed only in a small number of mostly western European countries. Recent surveys suggest that the drug's popularity is now stable or even possibly declining. There is considerable diversity in use patterns, which include both socially integrated and more marginalized groups. Spain, the Netherlands, Portugal, and Belgium appear to be the main points of entry to Europe. Within Europe, reports frequently mention Germany, France, and the United Kingdom as important transit or destination countries. Recent reports indicated that cocaine trafficking is expanding eastward, in particular along the Balkan routes and into harbours in Latvia and Lithuania.

[1]The author is affiliated with the European Monitoring Centre for Drugs and Drug Addiction.

Heroin: Across a number of indicators, the picture for heroin has been largely stable since 2004. However, a number of qualitative changes can be identified, in particular an aging cohort of opioid users and increases in polydrug use. The proportion of injectors among those entering treatment for opioid use is also decreasing. Information about heroin shortages in a number of countries in late 2010 and early 2011, and a recent decline in heroin seizures, point to changes in heroin availability in Europe that might also be associated with shifts in drug use patterns. In a small number of European countries (Bulgaria, Czech Republic, Estonia, and Slovakia) fentanyl, a synthetic opioid, and its analogs are in use; buprenorphine is used illicitly in Finland. In some other countries (specifically, Hungary and Romania) a shift to the injection of substituted cathinones has been noted.

ESPAD: The European School Survey Project on Alcohol and Other Drugs (ESPAD) is the largest cross-national research project on adolescent substance use in the world. The latest report, published in May 2012, revealed that the use of illicit drugs among school students age 15–16 has stabilized. The report also shows a reduction in "heavy episodic drinking." The survey highlights country differences and the need for vigilance where cannabis, inhalant, and tobacco use has increased. For more information, the report is available at *http://www.emcdda/europa.eu/publications*).

Early Warning System: One of the main tools to follow drug market innovation is the EU early warning system, a rapid-response mechanism set up in 1997. An increasing number of new psychoactive substances are reported by EU member States to the EMCDDA and Europol. Among these are several substituted cathinones, including mephedrone. With this drug gaining popularity in some countries, notably the United Kingdom, and reports of seizures in several other countries, it was decided to undertake a formal risk assessment of the drug which led to a Europe-wide control. Since 2009, new synthetic cannabinoids (cannabimimetics) continue to be regularly reported. Currently, EMCDDA is preparing a joint report with Europol on 4-methylamphetamine (*http://www.emcdda.europa.eu/activities/action-on-new-drugs*), after reports of a number of deaths linked to the use of this currently uncontrolled drug.

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Latin America: Update on REDLA and Trends in Drug Use in the Americas

Marya Hynes, M.H.S.[1]

ABSTRACT

Data Sources

Material for the presentation at the June 2012 CEWG meeting came from the Inter-American Drug Abuse Control Commission (CICAD) Report on Drug Use in the Americas 2011 (DUA 2011). Data for this report were provided by the National Drug Observatories (NDOs) in Organization of American States (OAS) member States. The full report can be downloaded at: *http://www.cicad.oas.org/oid/pubs/DrugUse_in_Americas_2011_en.pdf*.

Red Latinoamericana de Investigadores en Drogas (REDLA)

The REDLA network is CICAD's regional monitoring network, and forms part of a larger effort to strengthen drug research across Latin American countries. To date, REDLA has published a series of seven papers on drug issues in Latin America. At the time of this report, two more were pending publication in 2012. REDLA also carried out a peer review of DUA (2011) which provides CICAD's first analysis of drug use data from all 34 OAS member States. Finally, as an alert for the region, REDLA has identified the appearance of heroin use in Colombia and the Dominican Republic.

Drug Use in the Americas

The following provides a summary of main findings from the DUA 2011 report.

- **Alcohol** is the most frequently consumed substance in Latin American countries across all populations. The highest rates of hazardous alcohol use are found in the lower prevalence countries. Among secondary school students, "binge drinking" is a major behavior of concern.

- **Marijuana** is the most frequently consumed illicit drug. Patterns regarding marijuana use can be seen at the sub-regional level. Past-month prevalence of marijuana is higher than tobacco prevalence among high school students in eight Caribbean countries.

- **Inhalant** use is found among high school students across the Latin American countries. Past-month prevalence ranges from less than 1 percent to nearly 10 percent among high school students. Several countries showed higher prevalence of inhalant use among females than males, both in high schools and in universities. Several countries also showed higher inhalant prevalence than marijuana among high school students.

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- **Cocaine** consumption has spread across the Latin American Countries. High prevalence of cocaine is found in the Southern Cone (Argentina, Chile, and Uruguay) and Brazil. In some of these countries, prevalence exceeds that in the United States. While cocaine prevalence appears to be on the decline in the United States, prevalence appears to be increasing in the Southern Cone countries.

- **Cocaine Base Paste** and its variants (local names include *paco, basuco, pasta base,* and *pbc*) show comparatively low prevalence compared with other drugs. However, these smokable forms of cocaine appear to have a disproportionate impact in drug treatment and on the public health system.

- **Prescription Drug** use without a medical prescription appears highest in the countries with low illicit drug use. Most notable is Haiti, which has extremely low illicit drug prevalence but has some of the highest rates of pharmaceutical misuse.

Alert for the Southern Hemisphere

Data provided to CICAD by the NDOs indicate that heroin use continues to increase in Colombia and the Dominican Republic. In each of these countries, prevalence is low. However, requests for treatment have increased in both countries. Of particular concern is Colombia, where heroin use has transitioned over a 3-year period from being primarily smoked to being injected.

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Recent Drug Trends in Drug Use in New Zealand

Chris Wilkins, Ph.D.[1]

ABSTRACT

Research on drug trends in New Zealand primarily comes from two sources: 1) the Illicit Drug Monitoring System (IDMS), which conducts annual purposive surveys of frequent drug users in the community (*http://shore.ac.nz/projects/idms_study.htm*); and 2) the New Zealand Arrestee Drug Use Monitoring system (NZ-ADUM), which conducts annual surveys of arrestees at police stations (*http://shore.ac.nz/projects/NZ_ADUM_2010.htm*).

Methamphetamine

Methamphetamine continued to be the highest drug control priority in New Zealand. The 2009 Methamphetamine Action Plan extended police surveillance powers, enhanced border control, restricted availability of pseudoephedrine, and expanded drug treatment services. The availability of methamphetamine has declined slightly since 2009. The price of methamphetamine has increased steadily over the past 6 years (e.g., the gram price increased from $610 in 2006 to $815 in 2011 [New Zealand dollar]), and the potency of methamphetamine has declined slightly since 2008–2009. However, the use of methamphetamine remained high among specific groups of the population, such as police arrestees (38 percent of arrestees had used methamphetamine in the past year in 2011). High spending on methamphetamine by police arrestees has been linked to higher levels of drug dealing and property crime.

Ecstasy

The ecstasy market has been expanding in New Zealand over the past 6 years; the proportion of frequent drug users who could purchase ecstasy in 1 hour or less increased from 19 percent in 2006 to 32 percent in 2011. A range of chemicals other than MDMA (3,4-methylenedioxymethamphetamine) have been identified in ecstasy in New Zealand. These include BZP (1-benzylpiperazine), methylone (methylenedioxymethcathinone), mephedrone (4-methylmethcathinone), and MDPV (3,4-methylenedioxypyrovalerone). The price of a pill of ecstasy has declined from $59 in 2006 to $48 in 2011. The potency of ecstasy has been low since 2008 (reflecting a global shortage in MDMA), but there were recent reports of a return of MDMA supply. The New Zealand police recently dismantled a large syndicate involved in producing ecstasy tablets in Auckland, and there is evidence that this operation reversed the growth in the ecstasy market there (e.g., the proportion of frequent drug users who purchased ecstasy weekly or more often in Auckland declined from 46 percent in 2010 to 22 percent in 2011).

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BZP

The prohibition of BZP in 2008 has largely been successful, with lower levels of BZP use (the percentage of ecstasy users using BZP declined from 46 percent in 2007 to 25 percent in 2008); a substantial decline in BZP availability (the percentage saying BZP is "very easy" to obtain declined from 98 percent in 2007 to 15 percent in 2008); and an increase in the real price of BZP per pill (from $10 in 2007 to $16 in 2011).

Other Drugs

The cannabis and opioid markets remained largely stable. The new drugs most commonly identified are from the 2C drug family (e.g., 2C-B, 2C-E, 2C-I), synthetic cannabinoids (cannabimimetics) (e.g., Kronic), mephedrone, MDMA, and unidentified research chemicals.

The New Zealand government is currently operating the Temporary Class Drug Notices scheme, which has allowed the immediate banning of a range of cannabimimetics for a period of 12 months. The government is also in the process of developing the New Psychoactive Substances Regime, which will allow the legal sale of low harm psychoactive substances.

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