

# EPIDEMIOLOGIC TRENDS IN DRUG ABUSE

## VOLUME II

Proceedings of the Community  
Epidemiology Work Group

June 2006

**NATIONAL INSTITUTE ON DRUG ABUSE**



**COMMUNITY EPIDEMIOLOGY WORK GROUP**

# **Epidemiologic Trends in Drug Abuse**

**Volume II**

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Epidemiology Work Group

**June 2006**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL INSTITUTES OF HEALTH

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National Institute on Drug Abuse  
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The National Institute on Drug Abuse (NIDA) acknowledges the contributions made by representatives of the Community Epidemiology Work Group (CEWG) who have invested their time in preparing the reports presented at the semiannual CEWG meetings; representatives from agencies that contribute data and technical knowledge; and other researchers who participate in the meetings. This publication was prepared by MasiMax Resources, Inc., under contract number N01-DA-1-5514 from NIDA.

This publication, *Epidemiologic Trends in Drug Abuse, Volume II*, contains the individual papers presented and data reported at the June 2006 CEWG meeting by CEWG representatives from 20 areas in the United

States. In addition, *Volume II* includes a paper by a researcher on drug abuse patterns and trends in Cincinnati, Ohio, and an update on drug abuse patterns and trends in Mexico by researchers involved in Mexico's Epidemiologic Surveillance System of Addictions.

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For more information about the Community Epidemiology Work Group and other research-based publications and information on drug abuse and addiction, visit NIDA's Web site at <<http://www.drugabuse.gov>>.

Both Volumes I and II (available in limited supply) can be obtained by contacting the National Clearinghouse for Alcohol and Drug Information

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## Foreword

This publication includes papers presented at the 60th semiannual meeting of the Community Epidemiology Work Group (CEWG) held in Minneapolis, Minnesota, on June 13–16, 2006, under the sponsorship of the National Institutes of Health, National Institute on Drug Abuse (NIDA).

CEWG representatives from 20 sentinel areas in the United States presented reports, citing the most recent data on drug abuse patterns, trends, and emerging problems in their areas. A researcher from Cincinnati, Ohio, presented data/information on drug abuse patterns and trends in that area. There were also presentations by two panels. One was a panel on drug abuse research and issues in New Orleans in the post-Hurricane Katrina area. In the second panel, international researchers presented findings on drug abuse patterns and emerging trends in Central America. In addition, representatives from Federal agencies that contribute information to the CEWG provided updates on their data systems.

The papers of 20 CEWG representatives and papers by the researchers from Cincinnati, Ohio, and Mexico, are contained in this volume. Summaries of other presentations are published in NIDA's June 2006 *Epidemiologic Trends in Drug Abuse: Highlights and Executive Summary, Volume I*. The roles and functions of the CEWG are summarized in the next section.

Information reported at each CEWG meeting is disseminated to drug abuse prevention and treatment agencies, public health officials, researchers, and policymakers. The information is intended to alert authorities at the local, State, regional, and national levels and the general public to current drug abuse patterns and trends and emerging drug problems so that appropriate and timely action can be taken. Researchers also use this information to develop research hypotheses that might explain social, behavioral, and biological issues related to drug abuse.

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# The CEWG Network: Roles and Functions

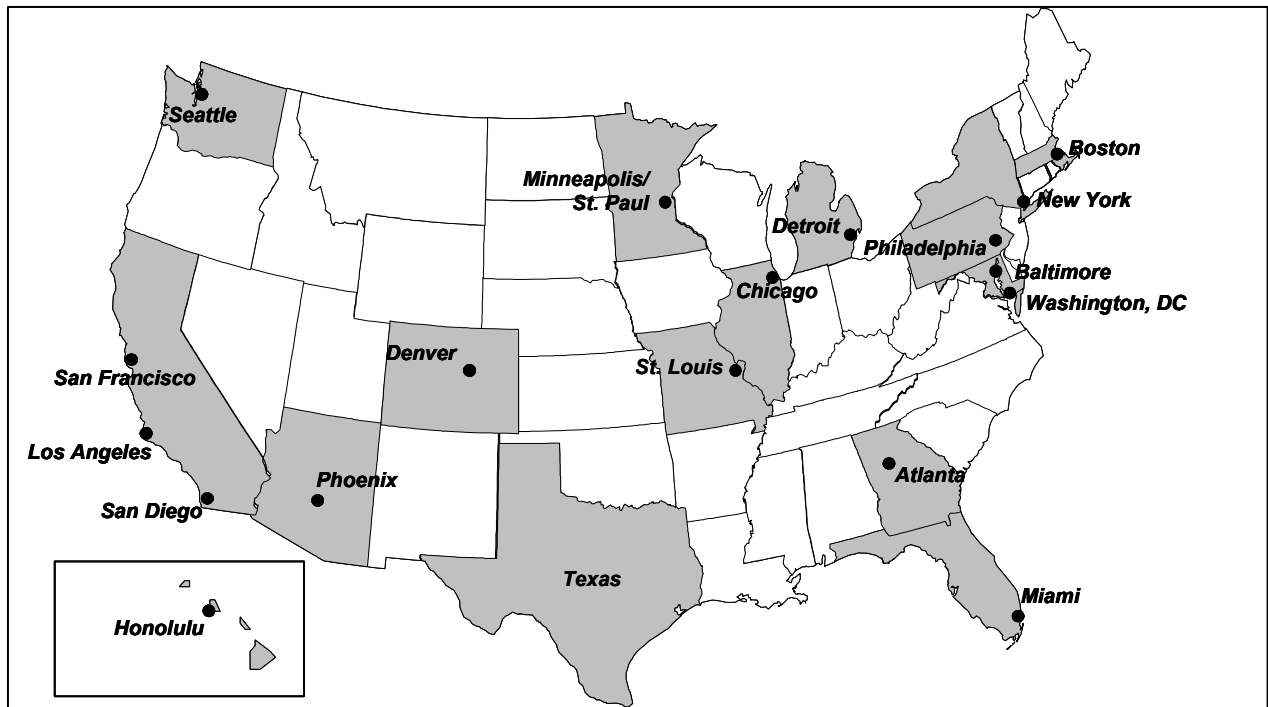
## ROLES OF THE CEWG

The CEWG is a unique epidemiologic network; it is designed to inform drug abuse prevention and treatment agencies, public health officials, policy-makers, and the general public about current and emerging drug abuse patterns. The 21 geographic areas represented in the CEWG are shown in the map, this page.

cal analysis serve as indicators on availability of different substances and engagement of law enforcement at the local level. Other data such as drug price and purity are indicators of availability, accessibility, and potency of specific drugs. The CEWG examines drug abuse indicators over time to monitor the nature and extent of drug abuse and associated problems within and across geographic areas.

## THE FUNCTIONS OF CEWG MEETINGS

The CEWG convenes semiannually. Ongoing communication is maintained between meetings through e-mail, conference calls, and mailings.



The CEWG has functioned as a drug abuse surveillance system since 1976. Multiple sources of information area accessed and analyzed to identify and assess current and emerging drug abuse patterns, trends, and issues in each CEWG area. Each data source provides information about the abuse of particular drugs, drug-using populations, and/or different facets of the behaviors and outcomes related to drug abuse. The information obtained from each source is considered a drug abuse *indicator*. Typically, indicators do not provide estimates of the number (prevalence) of drug abusers at any given time or the rate at which drug-abusing populations may be increasing or decreasing in size. However, indicators do assist in characterizing different types of drug abusers, such as those who have been treated in emergency rooms, have been admitted to drug treatment programs, or died with drugs found in their bodies. Data on items submitted for forensic chemi-

The interactive semiannual meetings are a major and distinguishing feature of the CEWG. The meetings provide a foundation for the continuous monitoring and surveillance of current and emerging drug problems and related health and social consequences. Through the meetings, the CEWG accomplishes the following:

- ◆ Dissemination of the most up-to-date information on drug abuse patterns and trends in each CEWG area
- ◆ Identification of changing drug abuse patterns and trends within and across CEWG areas
- ◆ Planning for followup on identified problems and emerging drug abuse problems

**Presentations** by each CEWG representative include a compilation of multiple sources of quantitative drug



abuse data. Going beyond publicly accessible data, CEWG representatives provide a unique local perspective gathered from both public records and qualitative research. Information is most often obtained from local substance abuse treatment providers and administrators, personnel of other health-related agencies, law enforcement officials, and drug abusers.

At each meeting, time is devoted to presentations by invited speakers. These special sessions typically focus on...

- ◆ Presentations by a panel of experts on a current or emerging drug problem identified in prior CEWG meetings
- ◆ Updates by Federal personnel on key data sets used by CEWG representatives
- ◆ Drug abuse patterns and trends in other countries

**Identification of changes in drug abuse patterns** is part of the interactive discussions at each CEWG meeting. Through this process, members can alert one another to the emergence of a potentially new drug of abuse that could spread from one area to another. Through the semiannual meetings, the CEWG is uniquely positioned to provide crucial perspectives on urgent drug abuse issues in a timely fashion and to illuminate their various facets within the local context.

**Planning for followup** on issues and problems identified at a meeting is initiated during discussion

sessions. Postmeeting planning continues through e-mails and conference calls, which assist in formulating agenda items for a subsequent meeting and raising new issues for exploration at the following meeting.

**Emerging/Current Trend** is an approach initiated at the CEWG meeting in June 2003 and is a direct product of planning at a prior meeting and subsequent followup activities. In June 2003, a special panel was convened on Methadone-Associated Mortality, and, in December 2003, a PCP Abuse Panel addressed the issue of phencyclidine abuse as a localized emerging trend. In June 2004, a special panel addressed the abuse of prescription drugs. The Emerging/Current Trend at the January 2005 meeting featured a panel on methamphetamine abuse. At the June 2006 meeting, this special session focused on the abuse and health consequences of fentanyl and fentanyl mixtures.

The Emerging/Current Trend approach draws upon the following:

- ◆ CEWG representatives' knowledge of local drug abuse patterns and trends
- ◆ Small exploratory studies
- ◆ Presentations of relevant information from federally supported data sources
- ◆ Presentations by other speakers knowledgeable in the selected topic area

EPIDEMIOLOGY  
OF  
DRUG  
ABUSE:

CEWG  
AREA  
PAPERS



# Patterns and Trends of Drug Abuse in Atlanta

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## ABSTRACT

*Cocaine, marijuana, methamphetamine, and heroin are the dominant drugs of abuse in the metropolitan Atlanta area. Even in the midst of Federal and State budget cutbacks, admissions to area public substance abuse treatment increased 18 percent from FY 2004 to FY 2005 and 29 percent over the prior 2 years. Cocaine remains Atlanta's primary drug concern. Cocaine was the most mentioned drug among treatment admissions, drug abuse deaths, and NFLIS drug seizure data. However, the proportion of cocaine-related treatment admissions continued a 5-year decline (59 percent in 2000 to 37 percent in 2005). Atlanta's cocaine users were most likely to be African-American, male, and older than 35. Nearly 8 out of 10 of all cocaine users who entered treatment preferred to smoke the drug. Marijuana remains the most commonly used substance in Atlanta. Ethnographic reports suggest that marijuana is easily available, and price levels for the drug have remained stable. Multiple indicators suggest that methamphetamine continued a 4-year trend as Atlanta's fastest growing drug problem. The increased availability of and reduced cost for crystal methamphetamine led to a 17-percent increase (FY 2004 to FY 2005) in treatment admissions who preferred to smoke the drug. The proportion of female to male methamphetamine users seeking treatment widened in 2005, both in metropolitan Atlanta and rural areas of the State. Although White users most frequently used methamphetamine, indicators suggest a growing level of methamphetamine use occurred among African-Americans. Heroin indicators continued to show decreasing levels of use, with the majority of users concentrated in Atlanta's Bluff district. Rates of injecting South American heroin have remained stable, although reports indicated a decrease in purity levels and an increase in price. Prescription benzodiazepines are second only to cocaine in the number of substance-related deaths across Georgia. Excluding alcohol, narcotic analgesics accounted for nearly one-half of drug-related deaths in 2005. Multiple indicators show that hy-*

*drocodone is the most commonly abused narcotic analgesic in Atlanta, followed by oxycodone.*

## INTRODUCTION

### Area Description

The metropolitan Atlanta area is located in the northwest corner of Georgia and includes 20 of the State's 159 counties. The metropolitan area comprises more than 6,100 square miles, or 10.5 percent of Georgia's total size. Currently, Georgia is the 10th most populous State in the Nation. From April 2000 to December 2004, the State's population grew by 4.4 percent, ranking fourth among all States.

With an estimated 4.6 million residents, the metropolitan Atlanta area includes nearly 52 percent of the State's population of nearly 8.4 million residents (U.S. Bureau of the Census 2003). The Atlanta metropolitan area ranks ninth among the Nation's major population centers. The city of Atlanta, with a population of approximately 369,000, represents 8.2 percent of the overall metropolitan population (American Community Survey 2003). The city is divided into two counties, Fulton County and DeKalb County, which include 18.8 and 15.9 percent of the metropolitan population, respectively.

There are demographic differences between the city of Atlanta and the larger metropolitan area, which more closely reflects the State as a whole. African-Americans are the largest ethnic group within the city (60 percent), followed by Whites (37 percent), Hispanics (6 percent), and Asians (2 percent). When examining the overall metropolitan Atlanta area, those numbers reverse. Whites account for the majority (62.5 percent), followed by African-Americans (29 percent), Hispanics (7.9 percent), and Asians (3.7 percent). Per capita family income in 2003 for the city of Atlanta was higher at \$32,635 than in the metropolitan area, at \$26,145. The poverty rate inside the city is 24 percent, compared with only 9.6 percent in the metropolitan area. The housing vacancy rate outside the city (8.9 percent) is much lower than in the city (17.5 percent).

In fiscal year (FY) 2005, the Georgia Bureau of Investigation (GBI)'s statewide drug enforcement efforts were led by 3 regional drug offices and 13 multijurisdictional task force programs. As a result of these combined efforts, 2,979 drug offenders were arrested. As of December 2004, there were 23 existing drug courts in Georgia (of these, 13 were for adult felony drug offenses, 3 were for adult misdemeanor drug offenses, and 7 were for juvenile drug offenses). One adult felony drug court was located in

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Atlanta. In 2005, 35 percent of those on probation in Georgia, 21 percent of prisoners, and 39 percent of parolees had been convicted of a drug-related offense.

Additional factors that influence substance use in the State:

- Georgia is both a final destination point for drug shipments and a smuggling corridor for drugs transported along the east coast. Extensive interstate highway, rail, and bus transportation networks, as well as international, regional, and private air and marine ports of entry, serve the State.
- The State is strategically located on the I-95 corridor between New York City and Miami, the key wholesale-level drug distribution centers on the east coast and major drug importation hubs. In addition, Interstate Highway 20 runs directly into Georgia from drug entry points along the southwest border and gulf coast.
- The city of Atlanta has become an important strategic point for drug trafficking organizations as it is the largest city in the South. It is considered a convenient nexus for all east/west and north/south travel. The city's major international airport also serves as a distribution venue for illicit substances.
- The entire State, Atlanta in particular, has experienced phenomenal growth over the last several years, with a corresponding increase in drug crime and violence. With Georgia bordering North Carolina, South Carolina, Tennessee, Alabama, and Florida, Atlanta is the base for several major dealers who maintain trafficking cells in these States, especially Mexican-based traffickers who hide within legitimate Hispanic enclaves.

### Data Sources

Principal data sources for this report include the following:

- **Emergency department (ED) data** were derived for the first half of calendar year 2005 from the Drug Abuse Warning Network (DAWN) *Live!* restricted-access online query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Eligible hospitals in the Atlanta area totaled 39; hospitals in the DAWN sample numbered 32, with the

number of emergency departments in the sample totaling 36. (Some hospitals have more than one emergency department.) During this 6-month period, between 14 and 15 EDs reported data each month. The completeness of data reported by participating EDs varied by month (see exhibit 1). Exhibits in this paper reflect cases that were received by DAWN as of June 9, 2006. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. Drug reports exceed the number of ED visits, since a patient may report use of multiple drugs (up to six drugs and alcohol). The DAWN *Live!* data are unweighted and, thus, are not estimates for the reporting area. These data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found at <<http://dawninfo.samhsa.gov>>.

- **Drug abuse treatment program data** are from the Georgia Department of Human Resources for primary drugs of abuse among clients admitted to metropolitan Atlanta's public drug treatment programs from 2000 through 2005. Data for non-metropolitan Atlanta counties of Georgia were also reported.
- **Drug price, purity, and trafficking data** are from the Drug Enforcement Administration (DEA), the National Drug Intelligence Center (NDIC), and the Office of National Drug Control Policy (ONDCP). Information on the price, purity, and source of several drugs was provided by the DEA's Domestic Monitor Program (DMP) and local law enforcement officials. Additional information came from *Narcotics Digest Weekly* published by the NDIC. Other data are from the Atlanta High Intensity Drug Trafficking Area (HIDTA) Task Force, a coordination unit for drug-related Federal, State, and local law enforcement agencies.
- **Forensic drug analysis data** are from the National Forensic Laboratory Information System (NFLIS) and represent evidence in suspected drug cases in metropolitan Atlanta that were tested by the GBI Forensic Laboratory in 2005.
- **State drug-related mortality data** were obtained from the Georgia Medical Examiner's Office. Data representing the number of deaths as-

sociated with drug use were collected from 2001 through 2005.

- **Ethnographic information** was collected from local drug use researchers and is used for several purposes: (1) to corroborate the epidemiologic drug indicators, (2) to signal potential drug trends, and (3) to place the epidemiologic data in a social context.
- **Acquired immunodeficiency syndrome (AIDS) data** are from the Department of Human Resources, Division of Public Health, and represent AIDS cases in Georgia and a 20-county Atlanta metropolitan from January 1981 through February 2006. Additional information was provided by the Centers for Disease Control and Prevention (CDC).

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

With 3,930 unweighted reports in the first half of calendar year 2005, cocaine was the most frequently reported illicit drug among DAWN *Live!* ED drug reports in the metropolitan Atlanta area (exhibit 2). Cocaine ED reports were higher among men than women (exhibit 3), with a ratio of 2.2:1. There were 655 ED reports among White patients, 3,128 by African-Americans, 54 by Hispanics, and 93 by persons of unknown race/ethnicity. ED reports among patients between the ages of 35 and 54 totaled 2,708 (69 percent of all ED reports).

In FY 2005, cocaine continued to be the primary drug of choice for individuals seeking assistance at publicly funded treatment centers in metropolitan Atlanta. However, the number of primary admissions in metropolitan Atlanta for cocaine ( $n=3,417$ ) in this period reflects a continuing downward trend (exhibit 4). From 2000 to 2002, approximately one-half of all treatment admissions in metropolitan Atlanta were cocaine-related. In 2003, this percentage decreased to 42 percent. In 2004, cocaine-related admissions declined to 39.5 percent. In 2005, primary cocaine-related treatment admissions dropped to 36.7 percent. The ratio of men to women in treatment for cocaine was 1.5:1, a proportion that was considerably higher than the 1.3:1 ratio found in 2004. Consistent with previous years, the percentage of African-Americans entering treatment for cocaine-related issues in 2005 was more than 70 percent. Although a greater percentage of African-Americans entered treatment for cocaine-related admissions outside metropolitan Atlanta in 2005 (51 vs. 49 percent), the difference between African-Americans and Whites was more nar-

row than in 2004 (55 vs. 45 percent). Those older than 35 accounted for the largest number of both metropolitan and nonmetropolitan cocaine admissions (81 percent). In metropolitan Atlanta, smoking continued to be the most preferred route (78 percent), followed by inhalation (12 percent), oral (5 percent), and injection (1 percent).

According to the DEA, Atlanta HIDTA, local law enforcement officials, and key street informants, cocaine remains readily available in Atlanta. Atlanta is a growing distribution hub for surrounding States and Europe. Atlanta also serves as part of a smuggling corridor along the east coast. Powder cocaine and crack dominate the Georgia drug scene. The primary sources for cocaine are Texas and California. HIDTA intelligence analysts implicate Mexico-based drug trafficking organizations, whose members blend within enclaves of Hispanic workers. According to HIDTA and NDIC, cocaine prices remain relatively stable in Atlanta. Powdered cocaine typically sells for \$80–\$100 per gram. Crack rocks sell for as little as \$3 but typically are priced for \$10–\$15.

The Georgia Threat Assessment (DEA 2006) reports that other than marijuana, crack is the most available drug in the city. Officials estimate that 75 percent of all drug-related arrests involve crack cocaine. Powder cocaine availability at the retail level in Georgia is limited, except in large cities such as Atlanta. NFLIS reported that cocaine accounted for more than 56 percent of confiscated substances in suspected drug cases that were tested in forensic laboratories in 2005 (exhibit 5). Cocaine had accounted for 44 percent of confiscated substances in 2004 and for nearly 40 percent in 2003.

In 2005, cocaine was indicated in 22 percent ( $n=400$ ) of Georgia's drug-related deaths. Cocaine-related deaths increased 8 percent from 2004 to 2005.

##### Heroin

Heroin abuse indicators in Atlanta during 2005 remained low compared with other metropolitan areas. Furthermore, ED reports, public substance abuse treatment admissions, drug-related deaths, and ethnographic data obtained through corroboration with local street outreach workers suggest that heroin use is decreasing.

The number of unweighted ED reports of heroin in the first half of 2005 ( $n=236$ ) was lower than reports for cocaine, marijuana, methamphetamine, and benzodiazepines (exhibit 2). A sizable majority of these patients were male (exhibit 3), with a 2.5:1 male-to-female ratio. African-American heroin ED reports

exceeded White reports (1.5:1). The ED heroin reports among Hispanics hovered around 2 percent ( $n=4$ ). Nearly 60 percent of all reports represented persons between ages 35 and 54 ( $n=141$ ). Nearly 10 percent of reports occurred among 18–24-year-olds.

In 2005, treatment admissions for individuals who reported heroin as their primary drug of choice accounted for 2.4 percent of all treatment admissions in the State; these admissions were mostly concentrated in metropolitan regions. Nearly 5 percent of metropolitan Atlanta admissions were for heroin, compared with 1.2 percent in nonmetropolitan areas. Compared with 2004, heroin-related treatment admissions declined by 20 percent in 2005. Admission ratios for men were higher (1.9:1) than those of women in metropolitan regions, with a nonmetropolitan ratio of 1.6:1 male to female treatment admissions. African-Americans outnumbered Whites (232 to 215) in 2005 (exhibit 6). Outside of metropolitan Atlanta, Whites represented an overwhelmingly high percentage (87 percent) of heroin-related treatment admissions, followed by African-Americans (9 percent) and Hispanics (4.2 percent). The proportion of heroin-related treatment admissions for Hispanics doubled in 2005 compared with 2004. A significant majority of heroin treatment admissions in both metropolitan (81 percent) and nonmetropolitan (79 percent) Atlanta were 35 and older, as in previous reporting periods. While treatment admissions for heroin are relatively low for those younger than 35, it is important to note that 8.6 percent of heroin treatment admissions are for individuals younger than 17. Nearly two out of three heroin treatment admissions preferred to inject the drug, followed by inhalation (26.2 percent), oral (5.6 percent), and smoking (2.5 percent). Most heroin users admitted to treatment in Georgia did not report having a secondary drug of choice, although metropolitan users were overall more likely than nonmetropolitan users to report a secondary drug of choice. Among heroin users in metropolitan Atlanta, 30 percent reported cocaine as a secondary drug of choice, compared with 16 percent for nonmetropolitan users. The Georgia Department of Public Health estimates the rate of heroin addicts in Atlanta to be 159 per 100,000 population ( $n$ =approximately 7,000).

The NDIC's *Georgia Threat Assessment* (June 2005) reports that heroin availability in metropolitan Atlanta is stable and that the city remains a high traffic area for heroin distribution. The majority of heroin available in Atlanta is South American, followed by heroin from southwest Asia. The DEA (June 2005) reported that average purity of South American heroin was 40.9 percent and cost on average \$2.30 per milligram. Law enforcement groups, including HIDTA and the DEA, report local heroin is supplied

via sources in Chicago, New York, and the southwest border, and that there has been increased Hispanic involvement in trafficking. Reports from outlying metropolitan Atlanta counties suggest an increase in heroin traffic in these jurisdictions. Approximately 1 percent ( $n=253$ ) of NFLIS-tested drug items seized tested positive for heroin in 2005 (exhibit 5).

Law enforcement groups, including HIDTA and the DEA, report that Mexican criminal groups are primarily responsible for the trafficking of South American heroin in Georgia. These groups use commercial and private vehicles to bring the drugs into the State. Heroin also enters the State through Colombian and Nigerian groups that transport the drug via airline couriers. Additionally, NDIC and the DEA mention that Dominican criminal groups drive heroin into Georgia from New York and Philadelphia. Some of that heroin is sold in Atlanta, but the majority of the drug is shipped elsewhere.

### Other Opiates/Narcotics

Indicators suggest that narcotic pain relievers are growing in popularity in metropolitan Atlanta. There were 180 unweighted ED oxycodone/combinations reports and 249 hydrocodone/combinations reports in the first 6 months of 2005 (exhibit 7). While nearly equal percentages of oxycodone-related ED reports involved men and women, a greater percentage of hydrocodone-related ED reports were women (1.3:1) (exhibit 3). Whites represented a higher percentage of nonheroin-related opiates reports than African-Americans.

Treatment data for other opiates or narcotics were only available for secondary and tertiary drug abuse categories. Continuing a stable trend, other opiates accounted for about 2–3 percent of secondary drugs abused statewide and about 1 percent of tertiary drugs abused in 2005. The use of opiates as a secondary abuse category was cited more often in nonmetropolitan areas (2.5 percent) than in metropolitan Atlanta (1.1 percent).

According to NFLIS data, oxycodone and hydrocodone each accounted for about 1 percent of lab identifications of drugs seized by law enforcement in 2005 (exhibit 5). OxyContin, the most widely recognized oxycodone product, is a growing drug threat in Georgia, according to the DEA. Twenty-milligram tablets sold in the illegal market for \$10 in 2005. Citing increases in supply of illegal OxyContin on the street and the rise of the Internet as a supply source, this price represented a sharp decline from the average calendar year 2004 price of \$20. Hydrocodone (Vicodin) and hydromorphone (Dilaudid) are also

abused in Atlanta, and 20-milligram tablets typically sell for \$5–\$10. These drugs are typically obtained by “doctor-shopping,” purchasing from dealers, and/or ordering via the Internet.

Hydrocodone-related deaths were up nearly 30 percent in 2005 from 2004. In 2005, hydrocodone was the second leading cause of death among drug-related mortalities in Georgia, followed by methadone, oxycodone, and codeine.

## Marijuana

Ethnographic sources consistently confirm that marijuana is the most commonly abused drug in Atlanta. Most epidemiological indicators show an upward trend in marijuana use.

There were 1,334 unweighted marijuana ED reports in the first half of 2005 (exhibit 2). There were more than twice as many marijuana reports for men as for women (exhibit 3). The number of ED reports involving African-Americans was higher than that for Whites (1.6:1). Approximately 50 percent of all ED reports for marijuana were distributed fairly evenly among individuals age 18–35, with 35–54-year-olds representing the largest percentage by age group (38 percent of all ED reports). Nine percent of reports were in the 12–17 age group (exhibit 3).

Nearly 24 percent of public treatment admissions in FY 2005 in metropolitan Atlanta were for those who considered marijuana their primary drug of choice (exhibit 4). Male admissions were just slightly more than double those of females in metropolitan Atlanta (2.1:1), with the gap narrowing in nonmetropolitan regions (1.5:1). The proportion of African-Americans who identified marijuana as their primary drug of choice was consistent with the previous year (55 percent vs. 56 percent in 2004). Similar to 2004, the vast majority of users (81 percent) in 2005 were at least 35 years old. Younger users of marijuana are seeking treatment at higher levels than in previous years. In metropolitan Atlanta, the percentage of treatment admissions of individuals 17 and younger (8.7 percent) was more than double the proportion of 18–25-year-old users (3.2 percent). In 2004, these percentages were nearly equal. This trend was consistent in nonmetropolitan public treatment facilities, where individuals 17 and younger (8.7 percent) were also more likely to enter treatment than individuals age 18–25 (3.1 percent). Alcohol was the most popular secondary drug of choice for marijuana users, followed by cocaine and methamphetamine for both metropolitan and nonmetropolitan Atlanta admissions.

Marijuana, which is readily available in Atlanta and the rest of Georgia, retails for about \$5–\$10 per gram and \$100–\$350 per ounce, according to the DEA. Atlanta serves as a regional distribution center for marijuana. Most of the marijuana in Georgia comes from Mexico, although locally grown marijuana is also on the market. Colombian and Jamaican marijuana are purportedly present but less available. Mexican drug cartels are the primary transporters and wholesale distributors of Mexican-grown marijuana. Local gangs (African-American and Hispanic) and local independent dealers (African-American and White) are the primary resale distributors.

The NFLIS report for FY 2005 indicates that nearly 1 percent of all drug-related items confiscated test positive for marijuana (exhibit 5). This percentage indicates a significant decrease from the 25 percent average in the previous 4 years. These results are skewed due to recent changes in statewide drug testing for marijuana and, therefore, do not accurately reflect the prevalence of the drug’s use. According to *The Georgia Governor's Task Force on Drug Suppression*, 58 percent of Georgia’s 159 counties have been reported as significant locations for marijuana cultivation.

Ethnographic data continue to support treatment and law enforcement data that indicate the widespread availability and use of marijuana in Atlanta. Hydroponic cultivation of marijuana has become more popular due in part to the DEA’s eradication program.

## Stimulants

Methamphetamine use is increasing faster than any other illicit substance in both metropolitan and nonmetropolitan areas. Law enforcement efforts to stop the spread of this drug have involved seizures and closures of clandestine labs. Methamphetamine is an increasing threat in the suburban areas because of the drug’s price and ease of availability, and it is replacing some traditional drugs as a less expensive, more potent alternative. Moreover, frequent media reports; recent strengthening of criminal penalties for the manufacture, transfer, and possession of methamphetamine; and the statewide illegalization of transporting materials used in its production have fueled the growing concerns over the dangers the drug poses. Methamphetamine is not only a party drug, but it is also used for weight loss or as a way to keep up with demanding work schedules.

There were 450 unweighted ED reports of methamphetamine in the Atlanta metropolitan area from January through June 2005 (exhibit 2). During this same period, the ratio of men to women among methamphetamine ED reports was 1.9:1. In the first



half of 2005, of those ED drug reports that identified race, Whites accounted for 85 percent of methamphetamine ED reports (exhibit 3), while African-Americans accounted for 10 percent and Hispanics represented 2 percent. ED reports among patients between the ages of 25 and 44 totaled 271 (60 percent of all methamphetamine ED reports). Nearly 18 percent of methamphetamine-related ED reports represented individuals younger than 21.

There were 268 unweighted ED amphetamine reports in the Atlanta metropolitan area from January through June 2005 (exhibit 2). The gap between male and female ED reports for amphetamine was narrow (exhibit 3), with a male-to-female ratio of 1.4:1. More than 8 out of 10 ED amphetamine patients were White, while African-Americans represented 12.3 percent of these ED patients.

Treatment admissions in metropolitan and nonmetropolitan areas for methamphetamine continue to rise faster than for any other classification of drug. In FY 2005, 11.9 percent ( $n=1,062$ ) of public treatment admissions in metropolitan Atlanta reported methamphetamine as the primary drug of choice, compared with 8.5 percent ( $n=680$ ) in 2004, 5.1 percent (543) in 2003, and 3.1 percent (377) in 2002 (exhibit 4). The proportion of methamphetamine admissions in nonmetropolitan Atlanta was more than 18.5 percent, the highest percentage ever reported. The percentage of women in metropolitan Atlanta who reported to treatment for methamphetamine-related causes increased in 2005 and represented more than 60 percent of all methamphetamine-related admissions (compared with 53 percent in 2004). In treatment centers outside of metropolitan Atlanta, the percentage of women entering treatment increased as well in 2005 (63 vs. 54 percent in 2004). Most users were White; in fact, Whites accounted for 94 percent of methamphetamine treatment admissions in metropolitan Atlanta during 2005 (exhibit 6). The proportions of African-American users have increased slightly (2.5 vs. 3.4 percent), and those for Hispanic users have remained stable since 2004. Regardless of demographic area, more than 80 percent of statewide treatment admissions were individuals older than 35. Metropolitan Atlanta treatment admissions were most likely to smoke methamphetamine (56 percent), followed by snort (18 percent) and inject (11 percent). Compared with 2004, these results reflect a 17-percent increase among individuals preferring to smoke methamphetamine (56 vs. 47 percent). Nonmetropolitan Atlanta treatment admissions preferred to smoke (62 percent), inject (15 percent), and snort (12 percent) methamphetamine.

According to the DEA and HIDTA, methamphetamine popularity continues to rise, in part because of its low price and availability. In 2005, methamphetamine typically sold for \$100 per gram, \$1,316 per ounce, and \$8,250 per pound.

Law enforcement officials report that methamphetamine has emerged as the primary drug threat in suburban communities neighboring Fulton and DeKalb Counties. The Atlanta HIDTA task force found that more than 68 percent of participating law enforcement agencies identified methamphetamine as posing the greatest threat to their areas. Methamphetamine accounted for nearly 33 percent of NFLIS tests of seized drugs in 2005, compared with 30 percent in 2004 and 23 percent in 2003. In 2005, the proportion of positive methamphetamine tests of seized drugs ranked second behind only cocaine (exhibit 5). In 2003, the proportion of methamphetamine-related testing had ranked third behind cocaine and marijuana. The HIDTA task force seized more methamphetamine in 2005 than in previous years. HIDTA investigators also report an increase among African-Americans using methamphetamine in Atlanta. Ethnographic data from Atlanta-area drug research studies among methamphetamine users support this trend.

### Depressants

The use of depressants, especially benzodiazepines, is on the rise in Atlanta. The most commonly abused benzodiazepine is alprazolam (Xanax). Less than 2 percent of those admitted for drug treatment chose benzodiazepines as their secondary or tertiary drug of choice, but ME reports for these drugs continued to increase.

From January through June 2005, the number of unweighted ED reports in metropolitan Atlanta consisted of the following: barbiturates ( $n=71$ ); benzodiazepines (641); and miscellaneous anxiolytics, sedatives, and hypnotics (208). ED reports for depressants in the first half of 2005 averaged nearly 153 per month. Most ED reports are for White women age 35–54.

The treatment data from publicly funded programs included depressants such as barbiturates and benzodiazepines only as secondary and tertiary drug choices for 2005. In metropolitan Atlanta, nearly 1 percent of primary heroin and methamphetamine users chose benzodiazepines as a secondary drug choice. These percentages are consistent with the figures from the previous 4 years.

The DEA considers benzodiazepines and other prescription depressants to be a growing threat in Georgia. The pills are widely available on the street or via the Internet. Their abuse now exceeds that of oxycodone and hydrocodone. According to the NDIC and DEA, local dealers tend to work independently and typically sell to “acquaintances and established customers.” These primarily White dealers and abusers steal prescription pads, rob pharmacies, and attempt to convince doctors to prescribe the desired pills.

### Hallucinogens

The epidemiological indicators and law enforcement data do not indicate much hallucinogen use in Atlanta. Despite these data, there was an increase in ethnographic reports of phencyclidine (PCP) use in the past 12 months, especially in combination with marijuana and ecstasy.

In the first 6 months of 2005, there were eight ED reports for lysergic acid diethylamide (LSD). Most of the 2004 ED reports involved men rather than women, with a ratio of 3:1. Whites outnumbered African-Americans (80 vs. 20 percent) among ED reports for LSD. In 2005, the majority of LSD reports represented 18–29-year-olds (50 percent) and 35–54-year-olds (50 percent). The total number of ED reports for PCP in 2005 was nine. PCP reports were highest among White males between the ages of 18 and 24 and 35 and 44.

Treatment data for hallucinogens are only available for secondary and tertiary drug abuse categories, and these are listed as PCP and “other hallucinogens.” In 2005, hallucinogens were listed 30 times as a secondary or tertiary drug of choice in metropolitan Atlanta. “Other hallucinogens” were listed 26 times as a secondary drug of abuse and 37 times as a tertiary drug in nonmetropolitan areas. These secondary and tertiary data indicate consistent use of hallucinogens compared with previous years.

In 2005, LSD accounted for only 0.01 percent of drugs analyzed by NFLIS. The DEA reports an increase in the availability of LSD, especially among White traffickers/users age 18–25. LSD is usually encountered in school settings and is imported through the U.S. Postal Service.

### Club Drugs

While so-called club drugs—methylenedioxymethamphetamine (MDMA or ecstasy), gamma hydroxybutyrate (GHB), and ketamine—appear relatively infrequently in epidemiological data, ethnographic and sociologic research suggests continued frequency in

use, particularly among metropolitan Atlanta’s young adult population.

There were 75 unweighted ED MDMA reports in the first half of 2005 (exhibit 2). MDMA reports by males exceeded those by females by almost double (1.8:1 ratio) (exhibit 3). African-Americans outnumbered Whites (1.6:1), and there were three reports for Hispanics. Young adults (21–29) represented more than 50 percent of ED MDMA reports. The reported route of administration for MDMA was almost exclusively oral.

Atlanta serves as a distribution point for MDMA to other U.S. cities. According to the NDIC, most of the MDMA available in Georgia is produced in northern Europe and flown into major U.S. cities, including Atlanta. The NFLIS reported that in 2005, MDMA accounted for 2.8 percent of substances tested in suspected drug cases (exhibit 6); methylenedioxymethamphetamine (MDA) accounted for another 0.2 percent. Results from ethnographic research indicate that most dealers are White middle and upper class high school and college students between the ages of 18 and 25. The drug retails at \$10–\$20 per tablet, although ethnographic data indicate that many users buy ecstasy in bulk. Users report that bulk ecstasy rates are \$5–\$10 per pill. An emerging trend among young adults is “candy flipping,” or combining MDMA and LSD, according to a local university report.

There were a total of 31 unweighted GHB ED reports from January through June 2005. GHB reports for males exceeded those for females (exhibit 3) at a ratio of 9.3:1. GHB ED reports were also predominantly White (8 to 1 African-American, with only 2 Hispanic reports in this time period). Sixty-seven percent of GHB reports occurred among those age 25–44. There were no ED GHB reports for those younger than 18, and there was only one report for the 45-and-older category. The reported preferred route of administration was almost exclusively oral.

The NDIC reports that the primary distributors and abusers of GHB are White young adults. The HIDTA Atlanta Division reports that in 2005, liquid GHB sold for \$500–\$1,000 per gallon and \$15–\$20 per dose (one dose is usually the equivalent of a capful from a small water bottle).

In the first half of 2005, there were three reported ketamine-related ED reports among males and none among females.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Georgia continued to be ranked eighth in the Nation for cumulative reported AIDS cases. A cumulative

total of 29,716 adult/adolescent AIDS cases were reported in Georgia through 2005. Of the cumulative cases in Georgia, 66 percent were African-American, 31 percent were White, 3 percent were Hispanic, and 81 percent were male. The city of Atlanta accounted for nearly 58 percent of the State’s cumulative AIDS cases.

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**Exhibit 1. Data Completeness for Atlanta Metropolitan Area DAWN Live! Emergency Departments, by Month: January–June, 2005**

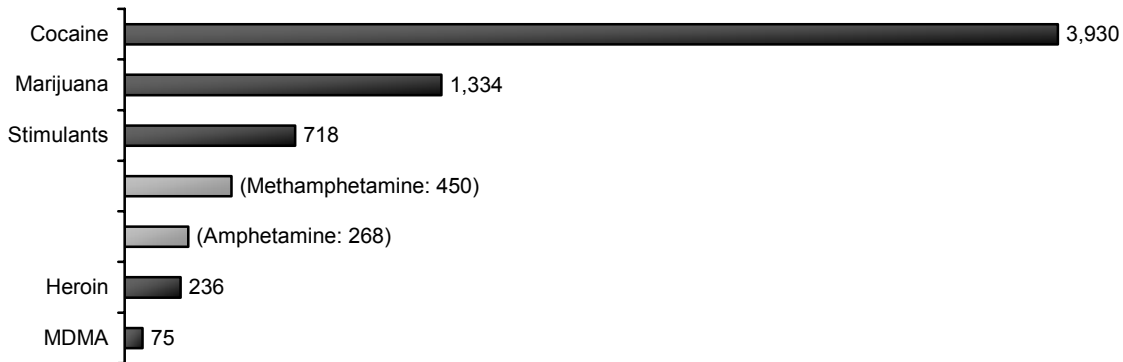
Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
39	32	36	14-15	0-1	0–1	20-21

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department.

SOURCE: DAWN Live!, OAS, SAMHSA, updated 06/09/06

**Exhibit 2. Drug Reports in Drug-Related ED Visits, by Drug Category (Unweighted): January–June 2005<sup>1</sup>**



<sup>1</sup>The unweighted data are from 32 EDs reporting to Atlanta hospitals reporting to DAWN from January through June 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change.

SOURCE: DAWN Live!, OAS, SAMHSA; updated 06/09/06

**Exhibit 3. Demographic Characteristics of Drug Reports in Drug-Related ED Visits, Selected Drugs, by Drug Type and Percent (Unweighted): January-June 2005<sup>1</sup>**

Demographic Characteristic (n)	Cocaine (3,930)	Methamphetamine (450)	Marijuana (1,334)	Heroin (236)	Benzodiazepine (641)	Hydrocodone/Comb. (249)	Oxycodone/Comb. (180)	Amphetamines (268)	GHB (31)	Ecstasy (75)
Gender										
Male	69.1	65.8	68.4	71.2	46.7	43.8	50.6	57.8	90.3	65.3
Female	30.9	34.2	31.6	28.8	53.3	56.2	49.4	42.2	9.7	34.7
ND <sup>2</sup>	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Race/Ethnicity										
White	16.7	84.7	37.2	38.1	83.6	65.5	71.1	82.1	80.6	36.0
African-Amer.	79.5	10.2	59.3	58.1	13.3	28.5	23.3	12.3	12.5	54.6
Hispanic	1.4	2.0	1.4	1.7	1.1	1.6	2.2	3.4	6.4	4.0
NTA <sup>3</sup>	0.3	1.6	0.5	0.4	0.3	1.2	1.1	0.7	0.0	4.0
ND	2.1	1.6	1.5	1.7	1.7	3.2	2.2	1.5	0.0	1.3
Age Group										
≤ 11	0.0	0.2	0.1	0.0	0.3	0.4	0.0	0.3	0.0	0.0
12–17	0.8	5.8	8.8	0.0	4.5	4.4	0.6	12.7	0.0	6.7
18–24	5.4	28.2	24.1	9.3	13.3	14.1	8.3	21.7	29.0	45.3
25–34	19.5	36.2	27.1	23.3	20.6	21.3	16.1	34.7	41.9	34.7
35–44	43.7	24.0	26.2	37.3	27.0	26.5	25.6	21.3	25.8	12.0
45–54	25.2	5.1	12.0	22.5	19.7	16.1	24.4	8.2	0.0	2.2
≥ 55	5.2	0.4	1.6	7.6	14.4	17.2	24.4	0.7	3.2	0.0
ND	0.1	0.0	0.0	0.0	0.3	0.0	0.6	0.3	0.0	0.0

<sup>1</sup>The unweighted data are from 32 EDs reporting to Atlanta hospitals reporting to DAWN from January through June 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change.

<sup>2</sup>ND=Not documented.

<sup>3</sup>NTA=Not tabulated above.

SOURCE: DAWN Live!, OAS, SAMHSA; updated 06/09/06

**Exhibit 4. Percentages of Primary Treatment Admissions in Metropolitan Atlanta: FYs 2001–2005**

Drug	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Cocaine/Crack	58.5	43.1	42.8	39.5	37.2
Heroin	6.7	7.6	6.3	5.6	5.0
Marijuana	15.5	18.7	20.0	21.7	20.9
Methamphetamine	1.6	3.1	5.1	8.5	11.9
Other Drugs <sup>1</sup>	26.1	21.3	25.8	24.6	25.0
Total Admissions (N=)	(7,996)	(7,909)	(7,178)	(7,996)	(9,320)

<sup>1</sup>Includes "alcohol-in-combination."

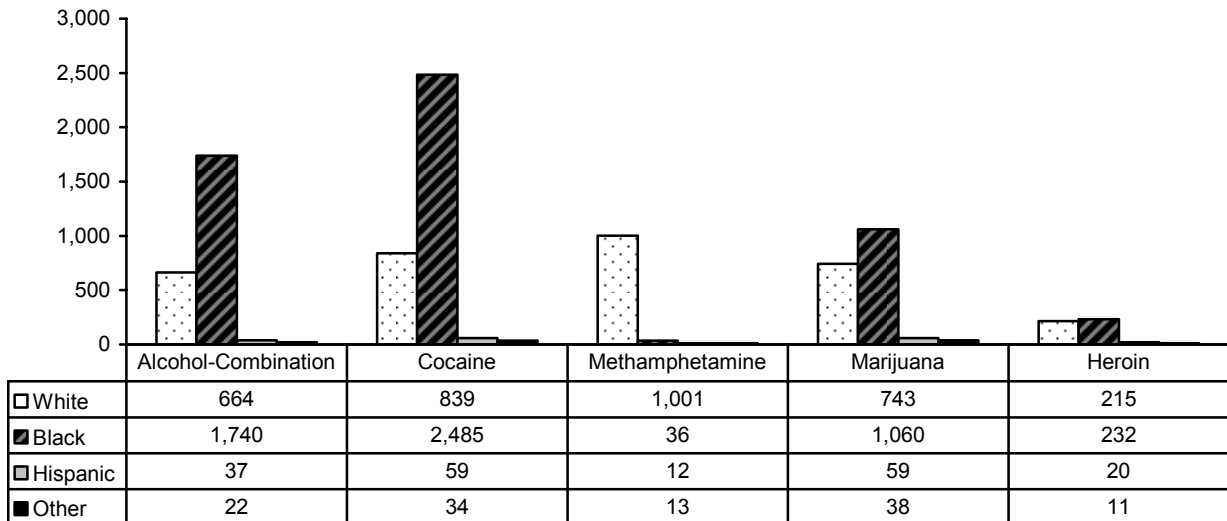
SOURCE: Georgia Department of Human Resources

**Exhibit 5. Number of Analyzed Items and Percentage of All Items Tested by Forensic Labs in Atlanta: CY 2005**

Drug	Number	Percent
Cocaine	11,833	56.3
Methamphetamine	6,925	32.9
MDMA/MDA	626	3.0
Alprazolam	337	1.6
Hydrocodone	266	1.3
Heroin	253	1.2
Oxycodone	149	0.7
Cannabis	127	0.6
Diazepam	66	0.3
Amphetamine	58	0.3
Other <sup>1</sup>	378	1.8
<b>Total</b>	<b>21,018</b>	<b>100.0</b>

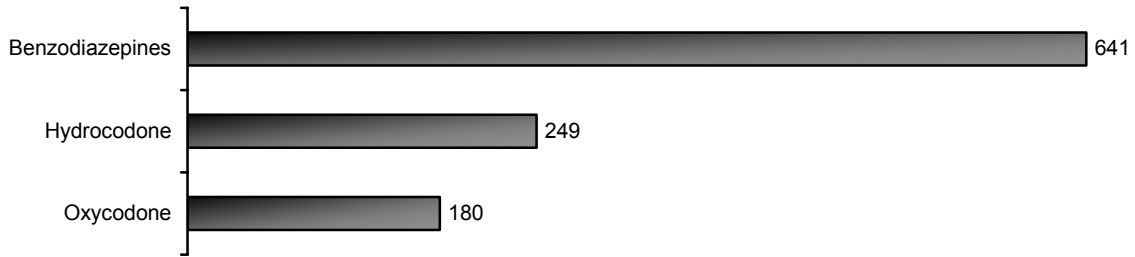
<sup>1</sup>Includes carisoprodol, clonazepam, morphine, codeine, psilocin, noncontrolled nonnarcotic drugs, methylphenidate, ketamine, gamma hydroxybutyrate, hydromorphone, 1-(3-trifluoromethylphenyl)-piperazine, lorazepam, and lysergic acid diethylamide.  
SOURCE: NFLIS, DEA

**Exhibit 6. Metropolitan Atlanta Public Substance Abuse Treatment Admissions, by Selected Drugs and Race/Ethnicity: 2005**



<sup>1</sup>Other category includes Asian, American Indian, multicultural, other race.  
SOURCE: Georgia Department of Human Resources

**Exhibit 7. Prescription Drug Misuse—Number of Drug Reports in Drug-Related ED Visits for Selected Drugs, by Case Type (Unweighted<sup>1</sup>): January-June 2005<sup>1</sup>**



<sup>1</sup>The unweighted data are from 32 EDs reporting to Atlanta hospitals reporting to DAWN from January through June 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change.

SOURCE: DAWN *Live!*, OAS, SAMHSA; updated 06/08/06

# Drug Use in the Baltimore Metropolitan Area: Epidemiology and Trends, 2000–2005

Leigh A. Henderson, Ph.D., and Doren H. Walker, M.S.<sup>1</sup>

## ABSTRACT

*Heroin remained the most significant substance among drug-related treatment admissions in the Baltimore metropolitan area in 2005, responsible for 53 percent of admissions. Heroin use in Baltimore is complex. There were several groups of heroin users differing by age, race, route of administration, and urbanicity. Baltimore had a core of older African-American heroin users, both intranasal users and injectors (39 percent and 20 percent of all heroin treatment admissions, respectively, in 2005). White users entering treatment for heroin were younger and were predominantly injectors rather than intranasal users (28 percent and 9 percent of all heroin treatment admissions, respectively, in 2005). The cocaine situation is complicated by the fact that for every treatment admission reporting primary cocaine use, 2.7 reported secondary use. In 2005, primary cocaine use was reported by 14 percent of treatment admissions, and secondary cocaine use was reported by 36 percent. Cocaine smoking was the most prevalent route of administration among both primary and secondary users. The use of cocaine by particular routes of administration was strongly associated with the use of heroin by particular routes of administration: 40 percent of cocaine smokers used intranasal heroin; 32 percent of intranasal cocaine users used intranasal heroin; and 90 percent of cocaine injectors also injected heroin. Younger cocaine users tended to be White, while African-American cocaine users were an older group with few young users. Marijuana was reported more frequently as a secondary substance by treatment admissions in 2005 (17 percent) than as a primary substance (13 percent). Primary marijuana use was associated with the use of other drugs (primarily alcohol, although cocaine, heroin, and other opiates were reported) among 60 percent of marijuana treatment admissions. Some 39 percent were younger than 18, and 82 percent were male. Criminal justice referrals continued to constitute the majority of marijuana treatment admissions—62 percent in 2005. Opiates and narcotics*

*other than heroin increased as primary substances among treatment admissions, from 3 percent in 2001 to 6 percent in 2005. In 2005, treatment admissions for primary opiate use were 85 percent White, slightly more than one-half male, and were a younger population than in 2001; a wide range of secondary substances was reported. Similar numbers of treatment admissions reported primary and secondary opiate use. Secondary users were also predominantly White and a more than one-half male. Most reported opiate abuse secondary to heroin injection (32 percent) or to intranasal heroin use (27 percent). Stimulants other than cocaine were rarely mentioned as the primary substance of abuse by treatment admissions. Tranquilizer use secondary to primary opiate use was reported by 11 percent of primary opiate treatment admissions.*

## INTRODUCTION

### Area Description

The Baltimore primary metropolitan statistical area (PMSA) was home to some 2.6 million persons in 2005. It comprises Baltimore City and the suburban counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's. Baltimore City is the largest independent city in the United States. The city's population declined from 735,000 in 1990 to 613,000 in 2005. The population of the surrounding counties grew from approximately 1.7 million in 1990 to 2.0 million in 2005.

The city and the suburban counties represent distinctly different socioeconomic groups. In 2000, median household income in the city was \$34,000, and 23 percent of the population lived in poverty. In the suburban counties, however, median household income ranged from \$52,000 to \$82,000, and the poverty level averaged 6 percent. In 2000, the median value of a single-family home was \$69,100 in the city and averaged \$152,000 in the suburban counties. The 2004 population composition of the city differed markedly from that of the surrounding counties: 32 percent White and 64 percent African-American, versus 77 percent White and 16 percent African-American, respectively. Two percent of the population in the city and 3 percent of the population in the suburban counties were Asian. Two percent of the population in both the city and the suburban counties were Hispanic.

The Baltimore area is a major node on the north-south drug trafficking route. It has facilities for entry of drugs into the country by road, rail, air, and sea. Baltimore is located on Interstate 95, which continues north to Philadelphia, New York, and Boston, and

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south to Washington, Richmond, and Florida. Frequent daily train service is available on this route. The area is served by three major airports (Baltimore-Washington International Airport in Baltimore County and Reagan National and Dulles Airports in the vicinity of Washington, DC, approximately 50 miles from the Baltimore City center). Baltimore is also a significant active seaport. The area has numerous colleges and universities and several military bases.

### Data Sources

Information for this report was obtained from the sources shown below:

- **Population and demographic data**, including population estimates for 1990–2004 and income, poverty, and housing cost estimates for 2004 for Maryland counties, were derived from U.S. Bureau of the Census data (electronic access: <<http://factfinder.census.gov>> last accessed January 11, 2005).
- **Treatment admissions data** were provided by the Maryland Alcohol and Drug Abuse Administration, Department of Health and Mental Hygiene, for 2001 through 2005. Data are presented for the PMSA as a whole, as well as separately for Baltimore City and the suburban counties. Included are those programs receiving both public and private funding. All clients are reported, regardless of individual source of funding. Significant omissions are the Baltimore City and Fort Howard Veterans' Administration Medical Centers, which do not report to the State data collection system. Treatment data in this report exclude admissions for abuse of alcohol alone (about 14 percent of all treatment admissions in 2005). Admissions with primary abuse of alcohol and secondary/tertiary abuse of drugs (about 11 percent of all admissions) are included. Numbers of admissions for 2005 may increase as data are received from late-reporting treatment providers.
- **Mortality data** were provided by Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for the Baltimore PMSA for 2003. In 2003, DAWN covered 100 percent of the Baltimore/Towson area. Data were from *Drug Abuse Warning Network, 2003. Area Profiles of Drug Mortality*. DAWN Series D-27, DHHS Pub. No. (SMA) 05-4023. Rockville, MD, 2005.
- **Illicit drug prices** were provided by the National Drug Intelligence Center, *National Illicit Drug Prices—December 2005*, Product No. 2006-L0424-005, February 2006.
- **Forensic drug analysis** was provided by the National Forensic Laboratory Information System (NFLIS) for January–December 2005.
- **Data on the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS)** were provided by the AIDS Administration, Maryland Department of Health and Mental Hygiene, in *The Maryland 2005 HIV/AIDS Annual Report, 2005*: 7, 9, 31–33 (electronic access: <<http://www.dhmd.state.md.us/AIDS/epictr.htm>> last accessed June 9, 2006) and by the Centers for Disease Control and Prevention in *HIV/AIDS Surveillance Report, 2004*. Vol. 16. Atlanta: U.S. Dept. of Health and Human Services, Centers for Disease Control and Prevention, 2005: 29-30 (electronic access: <<http://www.cdc.gov/hiv/stats/hasrlink.htm>> last accessed July 17, 2006).
- **Data on sexually transmitted diseases (STDs)** were provided by the Centers for Disease Control and Prevention in *Sexually Transmitted Disease Surveillance, 2004*. U.S. Dept. of Health and Human Services, Centers for Disease Control and Prevention. Cited in: AIDS Administration, Maryland Department of Health and Mental Hygiene, *The Maryland 2005 HIV/AIDS Annual Report, 2005*: 82 (electronic access: <<http://www.dhmd.state.md.us/AIDS/epictr.htm>> last accessed June 9, 2006).

### DRUG ABUSE PATTERNS AND TRENDS

The Baltimore City treatment system received significant amounts of additional funding in 2000, 2001, and 2002. This is reflected in increases in the number of treatment admissions in 2001, 2002, and 2003, followed by slight declines after 2003.

Polydrug use in general is the norm in the Baltimore PMSA. About 70 percent of drug-related treatment admissions in 2005 reported problems with at least one substance other than their primary substance. In 2003, 87 percent of the 538 drug-related deaths reported to the area's medical examiners involved multiple substances.

### Cocaine/Crack

Cocaine indicators were mixed (exhibit 1), but data from comparable times were not available. The co-



caine treatment admission rate in the total PMSA increased from 187 per 100,000 population age 12 and older in 2001 to 239 per 100,000 in 2003 (exhibit 2). The rate declined slightly, to 229 per 100,000, in 2005, but it was essentially stable from 2002 through 2005. The proportion of drug items analyzed by NFLIS that were found to be cocaine declined from 47 percent in 2003 to 41 percent in 2005. Cocaine was present in 226 (42 percent) of the drug-related deaths in 2003. Mentions of cocaine in emergency departments increased between 2000 and 2002.

Smoked cocaine (crack) represented 77 percent of the treatment admissions for primary cocaine use in 2005 (exhibit 3). Intranasal cocaine use represented 13 percent, and cocaine injection constituted 8 percent. The population in treatment for cocaine use has aged. The median age at admission increased from 37 to 39 between 2001 and 2005; the proportion age 35 or older increased from 64 to 70 percent. The proportion of admissions who had been in treatment before, however, increased very little between 2001 and 2005, and the proportions of those entering treatment for the first time were similar regardless of the number of years of cocaine use. Males made up 55–60 percent of treatment admissions from 2001 through 2005. The proportion that was African-American was between 60 and 64 percent. Referral to treatment through the criminal justice system fell from 37 to 31 percent. Daily use of cocaine rose from 36 percent in 2001 to 44 percent in 2005. Use of other drugs in addition to cocaine was reported by between 69 and 72 percent from 2001 through 2005. In 2005, alcohol was reported as a secondary substance by 39 percent, marijuana by 22 percent, intranasal heroin by 15 percent, and heroin injection by 11 percent.

Despite the apparent dominance of heroin in the Baltimore PMSA, primary use of cocaine represented 14 percent of drug-related treatment admissions in 2005, about one-quarter of the 53 percent of admissions represented by primary heroin use (exhibit 2), testing of 23,580 items in 2005 by NFLIS found that 40 percent were cocaine and 20 percent were heroin. This apparent discrepancy may be explained by the use of cocaine as a secondary substance. Cocaine was reported as a secondary substance by 36 percent of treatment admissions in 2005 (exhibit 2); in other words, for every person reporting cocaine as a primary substance, 2.7 reported it as a secondary substance. Overall, 50 percent of treatment admissions reported cocaine abuse as a primary or secondary problem.

Exhibit 4 compares the characteristics of treatment admissions for primary and secondary cocaine use, according to the route of administration of cocaine.

Among primary cocaine users, 77 percent reported smoking, 13 percent reported intranasal use, and 8 percent reported injection. Among secondary users, however, 52 percent reported smoking, 17 percent reported intranasal use, and 30 percent reported injection. Differences in user characteristics were generally more pronounced among routes of administration than between primary and secondary users:

- Admissions who smoked cocaine were about one-half male (56 percent of primary cocaine smokers and 46 percent of secondary cocaine smokers); they were likely to be older with few younger users, to be African-American (65 and 70 percent, respectively), to have been in treatment before, and to receive treatment in the city.
- Intranasal cocaine users were about two-thirds male. They had both older and younger populations, as well as relatively high proportions of Whites (63 percent of primary intranasal cocaine users and 54 percent of secondary intranasal cocaine users), of admissions first entering treatment after 3 years or less of cocaine use, and of admissions treated in the suburban counties.
- Cocaine injectors resembled cocaine smokers, but they had higher proportions of males (67 percent of primary cocaine smokers and 63 percent of secondary cocaine smokers) and Whites (48 and 42 percent, respectively).

Exhibit 4 also highlights the strong association between cocaine and heroin use and suggests that the preferred route of heroin administration is related to the preferred route of cocaine administration:

- Cocaine smoking was associated with intranasal heroin use. Among primary cocaine smokers in 2005, 17 percent used intranasal heroin; only 7 percent used heroin by another route. Among secondary cocaine smokers, 53 percent reported their primary substance as intranasal heroin, and 21 percent reported heroin injection. Overall, 40 percent of all cocaine smokers used intranasal heroin, and 16 percent injected heroin.
- Intranasal cocaine and heroin use were similarly associated. Overall, 32 percent of all intranasal cocaine users also used intranasal heroin; 12 percent injected heroin.
- In contrast, almost all cocaine injectors (90 percent) injected heroin—91 percent as a primary and 73 percent as a secondary substance. Only 2 percent of cocaine injectors reported intranasal heroin use.

Exhibit 5 shows the numbers of primary, secondary, and tertiary cocaine admissions by route of administration, age, and race.

Prices for powder cocaine for December 2005 were reported as \$18,000–\$25,000 per kilogram at the wholesale level, \$900–\$1,200 per ounce at midlevel, and \$60–\$100 per gram at the retail level. Prices for crack cocaine were reported as \$125 per 8-ball (1/8 ounce) and \$20–\$35 per rock at the retail level.

## Heroin

Heroin remained the most significant substance among drug-related treatment admissions in Baltimore in 2005, responsible for 53 percent of admissions (exhibit 1). The heroin treatment admission rate increased from 784 per 100,000 population age 12 and older in 2001 to 990 per 100,000 in 2003 (exhibit 2). However, it declined slightly to 893 per 100,000 in 2005. The proportion of drug items analyzed by NFLIS that were found to be heroin declined from 32 percent in 2003 to 21 percent in 2005. Opiates were present in 469 (87 percent) drug-related deaths in 2003.

Heroin use in the Baltimore metropolitan area is complex. There are several groups of heroin users differing by urbanicity, route of administration, age, and race. In 2005, the heroin treatment admission rate was about 13 times higher in Baltimore City than in the suburban counties (exhibit 2). In Baltimore City, intranasal use was the preferred route of administration among treatment admissions, and the admission rate for intranasal use was 21 percent higher than for injection. In the suburban counties, however, the rate for heroin injection was 116 percent higher than for intranasal use.

Intranasal heroin use and heroin injection each represented 49 percent of the treatment admissions for primary heroin use in 2005 (exhibit 6). The population in treatment for heroin use has aged. The median age at admission increased from 35 to 38 between 2001 and 2005; the proportion age 35 or older increased from 54 to 64 percent. The proportion of admissions that had been in treatment before increased from 64 percent in 2001 to 70 percent in 2005, and the proportions of those entering treatment for the first time decreased from 36 to 30 percent. Males made up 56–57 percent of treatment admissions from 2001 through 2005. The proportion that was African-American fell from 66 percent in 2001 to 60 percent in 2005. Referral to treatment through the criminal justice system fell from 28 to 21 percent. Daily use of

heroin rose from 72 percent in 2001 to 78 percent in 2005. Use of other drugs in addition to heroin was reported by between 67 and 73 percent from 2001 through 2005. In 2005, smoked cocaine was reported as a secondary substance by 28 percent, alcohol by 20 percent, injected cocaine by 18 percent, and marijuana by 10 percent.

Exhibit 7 depicts the number of heroin treatment admissions in 2005 by route of administration, age, and race. Baltimore has a core of older African-American heroin users, both injectors and intranasal users. White users entering treatment for heroin use were younger and were predominantly injectors, although there is a significant group of White intranasal heroin users as well.

Exhibit 8 tabulates the characteristics of these four main groups of heroin users admitted to treatment in Baltimore:

- African-American intranasal heroin users made up the largest segment (39 percent) of the heroin users admitted to treatment in Baltimore in 2005, while White intranasal heroin users made up 9 percent. Most of the African-American intranasal users (94 percent) were treated in Baltimore City, compared with 64 percent of the White intranasal users. The African-American and White intranasal heroin users differed substantially in age, duration and frequency of use, treatment referral source, and secondary drugs reported. Among the African-American intranasal heroin users, 82 percent were age 35 and older in 2005, compared with 40 percent of their White counterparts. About 1 percent of the African-American intranasal users were younger than age 26, compared with 30 percent of the White intranasal users. Among the 28 percent of African-American intranasal heroin users entering treatment for the first time, the median duration of use was 16 years. Among the 40 percent of the same group among Whites, the median duration of use was 3 years. Daily use was reported by 76 percent of the African-Americans and by 84 percent of the Whites. A larger proportion of African-American intranasal users entered treatment through the criminal justice system (29 percent, compared with 10 percent of their White counterparts). More than one-half of the African-American intranasal heroin users (53 percent) reported secondary abuse of cocaine (44 percent smoking and 9 percent intranasal use), compared with 34 percent of the White intranasal users (21 percent smoking and 12 percent intranasal use).

However, the White intranasal heroin users were more likely to report use of opiates other than heroin than were the African-American intranasal users (14 and 2 percent, respectively).

- White heroin injectors made up 28 percent of the heroin users admitted to treatment in Baltimore in 2005, while African-American heroin injectors made up 20 percent (exhibit 8). Many of the contrasts between the White and African-American injectors were similar to those seen between the White and African-American intranasal heroin users. Most of the African-American injectors (93 percent) were treated in Baltimore City, compared with 59 percent of the White heroin injectors. The African-American and White heroin injectors differed substantially in age, duration and frequency of use, treatment referral source, and secondary drugs reported. Among the White heroin injectors, 32 percent were age 35 and older in 2005, compared with 89 percent of their African-American counterparts. Thirty-eight percent of the White heroin injectors were younger than age 26, compared with about 1 percent of the African-American heroin injectors. Among the 32 percent of White heroin injectors entering treatment for the first time, the median duration of use was 6 years. Among the 24 percent of the same group among African-Americans, the median duration of use was 23 years. Daily use was reported by 82 percent of the Whites and by 76 percent of the African-Americans. A smaller proportion of White heroin injectors entered treatment through the criminal justice system (12 percent, compared with 23 percent of their African-American counterparts). Almost one-half (47 percent) of the White heroin injectors reported secondary abuse of cocaine (26 percent injection and 16 percent smoking), compared with 70 percent of the African-American heroin injectors (51 percent injection and 17 percent smoking). However, the White heroin injectors were more likely to report use of opiates other than heroin than were the African-American heroin injectors (8 and 2 percent, respectively).

Prices for heroin for December 2005 were reported as \$70,000–\$100,000 per kilogram at the wholesale level, \$2,800–\$3,000 per ounce at midlevel, and, at the retail level, \$70–\$100 per gram, \$60–\$100 per bundle of 10–13 capsules, and \$6–\$10 per capsule (0.05–0.10 grams).

## Other Opiates and Narcotics

Indicators for opiates and narcotics other than heroin continued to increase (exhibit 1). Treatment admission rates for opiates other than heroin more than doubled between 2001 and 2005, from 45 per 100,000 population age 12 and older to 100 per 100,000 in 2005 (exhibit 2). Drug items analyzed by NFLIS that were opiates other than heroin increased by 39 percent between 2004 and 2005, although together they made up just over 1 percent of the 23,580 items analyzed in 2005. Oxycodone was responsible for 57 percent of that 1 percent, followed by hydrocodone (12 percent) and methadone (9 percent). Buprenorphine was identified in 14 analyses, and fentanyl was identified in 2.

Opiates other than heroin were reported by 6 percent of admissions as the primary substance of abuse, and they were reported by an additional 5 percent as a secondary substance (exhibit 2). Exhibit 9 compares admissions reporting opiates other than heroin as primary substances with those reporting them as secondary substances.

Among primary opiate users in 2005, males were a slim majority (54 percent), and almost all were White (85 percent) (exhibit 9). The population distribution of primary opiate users grew more youthful between 2001 and 2005. There were few admissions younger than 18, but the proportion of those age 18–25 increased from 20 to 25 percent, and those age 26–34 increased from 23 to 28 percent. The proportion of older users (35 and older) declined from 55 to 45 percent, and the median age at admission fell from 36 to 33. The location of the treatment population shifted dramatically; 82 percent were treated in the suburban counties in 2001, compared with 43 percent in 2005.

The preferred route of administration among primary opiate users shifted from 87 percent oral and 6 percent intranasal use in 2001 to 80 percent oral and 13 percent intranasal use in 2005. Daily use of opiates was the norm, reported by 82 percent in 2005. Most entered treatment of their own volition (only 7 percent were referred through the criminal justice system in 2005). Twenty-nine percent of 2005 opiate admissions first entered treatment within 3 years of beginning opiate use. The median duration of use before entering treatment was 3 years in every year from 2001 through 2005.

Secondary substances were diverse, and they were reported by 58 percent of primary opiate admissions

in 2005. No single substance was predominant. Use of alcohol, cocaine, marijuana, heroin, and tranquilizers were each reported by 11 to 18 percent of primary opiate admissions in 2005.

Secondary opiate users were similar in several respects to primary opiate users. They were predominantly White (78 percent) and male (58 percent). A similar increase in intranasal use between 2001 and 2005 was apparent (from 5 percent in 2001 to 10 percent in 2005), as was the shift from treatment in the suburban counties to treatment in the city (77 percent in the counties in 2001 and 52 percent in 2005). Patterns of first treatment entry and duration of use were similar. There were, however, several significant differences. A significant proportion of secondary opiate users were younger than age 18 (between 6 and 9 percent from 2001 to 2005). Daily use of opiates, at 48 percent in 2005, was significantly lower than among primary opiate users. The likelihood of referral to treatment through the criminal justice system was 6–9 percentage points higher among secondary opiate users than among primary users every year between 2001 and 2005.

Heroin was reported as the primary substance at treatment entry by 61 percent of secondary opiate admissions in 2005; 32 percent reported heroin injection and 27 percent reported intranasal heroin use. Other common primary substances were alcohol (18 percent), cocaine (9 percent), and marijuana (8 percent). Tranquilizers were important secondary substances among primary opiate users, but they were not significant primary substances among secondary opiate users.

### **Marijuana**

The annual marijuana treatment admission rate increased from 236 per 100,000 population age 12 and older in 2001 to 264 per 100,000 in 2003, then declined to 220 per 100,000 in 2005 (exhibit 2). The proportion of marijuana treatment admissions in 2005 was higher in the suburban counties (20 percent of county admissions) than in Baltimore City (9 percent of city admissions). However, the admission rate for 2005 was higher in the city (438 per 100,000 population age 12 and older, compared with 154 per 100,000 in the counties). The proportion of drug items analyzed by NFLIS that were found to be cannabis increased from 21 percent in 2003 to 39 percent in 2005.

More often than not, marijuana use in the indicator data sets was associated with the use of alcohol or other drugs. Marijuana was consistently reported more frequently as a secondary substance than as a

primary substance from 2001 through 2005. Thirteen percent of admissions in 2005 reported it as a primary substance, while 17 percent reported it as a secondary substance. Among treatment admissions for primary marijuana use in 2005, 60 percent reported using additional substances (a decline from the 68 percent reporting secondary substances in 2001) (exhibit 10). Alcohol was the most frequent secondary substance (reported by 50 percent in 2005), but other drugs were also represented—cocaine (8 percent), heroin (5 percent), opiates other than heroin (3 percent), hallucinogens (2 percent), and a range of other substances (primarily stimulants, tranquilizers, and phencyclidine [PCP]—6 percent).

Persons entering treatment for marijuana use were young. In 2005, 39 percent were younger than 18, although this represented a decline from the 48 percent who were younger than 18 in 2001. Marijuana admissions remained primarily male from 2001 through 2005 (81 to 83 percent). African-American admissions constituted a slim majority over White admissions, but the proportions remained relatively constant from 2001 through 2005, at 42–49 percent White and 49–54 percent African-American. Hispanics represented a small but steadily increasing proportion of marijuana treatment admissions.

The criminal justice system was responsible for referring the majority of admissions to treatment—62 percent in 2005. Daily marijuana use was not the norm; it was reported by 33 percent of admissions in 2005. Some 31 percent of marijuana admissions in 2005 first entered treatment within 3 years of beginning marijuana use, and 36 percent first entered treatment after more than 3 years of use. Although there was a slight downward trend in the proportion of admissions using marijuana for more than 3 years before entering treatment, the median duration of use among those entering treatment for the first time remained unchanged from 2001 through 2005, at 4 years.

Prices for marijuana for December 2005 were reported as \$800–\$4,000 per pound at the wholesale level. Midlevel prices were \$250–\$300 per ounce for hydroponic marijuana or B.C. bud. At the retail level, the price was \$5 per joint.

### **Stimulants**

Stimulants other than cocaine were rarely mentioned as the primary substance of abuse by treatment admissions (exhibit 2). Nevertheless, the numbers, although small, increased from 53 admissions in 2001 to 93 in 2005. The majority (66 percent) of stimulant admissions in 2005 were for methamphetamine, and

30 percent were for amphetamine. The treatment admission rate for stimulants was between 2 and 4 per 100,000 population age 12 and older from 2001 through 2005.

Midlevel prices for methamphetamine for December 2005 were reported as \$800–\$1,000 per ounce for powder methamphetamine. At the retail level, the price was \$100 per gram for powder methamphetamine.

### Other Drugs

All other drugs (sedatives, tranquilizers, hallucinogens, PCP, inhalants, over-the-counter drugs, and any other drugs not specified elsewhere) were responsible for just over 1 percent of drug-related treatment admissions in 2005 (exhibit 2). Treatment admission rates did not demonstrate any particular trends. From 2001 through 2005, the treatment admission rates were between 5 and 8 admissions per 100,000 population age 12 and older for benzodiazepines and other tranquilizers, between 3 and 5 for barbiturates and other sedatives, between 2 and 4 for hallucinogens, between 2 and 5 for PCP, and between less than 1 and 1 per 100,000 for both inhalants and over-the-counter drugs.

Midlevel prices for methylenedioxymethamphetamine (MDMA) for December 2005 were reported as \$6 per tablet in quantities of 1,000 or more. At the retail level, the price was \$10–\$20 per tablet.

### DRUG-RELATED NEWS FROM BALTIMORE

In June 2005, the Open Society Institute—Baltimore, the Johns Hopkins Bloomberg School of Public Health, and the city of Baltimore sponsored a 2-day conference, *Cities on the Right Track, Building Public Drug Treatment Systems*. The conference presented successful approaches to drug addiction treatment systems in cities across the country. These approaches provided effective treatment, monitored outcomes, and built public systems with the capacity to grow.

Eight years ago, the city made it a priority to build an expanded drug treatment system. Since then, funding has tripled, from \$18 million in 1996 to \$53 million last year. The number of slots for uninsured or underinsured residents rose from 5,100 a decade ago to 8,300 currently. The Open Society has provided substantial funds for both treatment and advocacy, and the Abell and Weinberg Foundations have also contributed.

In 2005, the number of drug overdose deaths fell to its lowest point in a decade, 218 deaths. There were 235 such deaths in 1996, and they peaked at 328 deaths in 1999. Some 90 percent of drug overdose deaths involved heroin and other opiates. Some of the decrease may be attributable to the *Staying Alive* program instituted 2 years ago, in which some 1,600 addicts and their families have been trained in CPR and the use of Narcan. As of the end of last year, 194 overdoses were reported to have been aborted.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The annual AIDS case report rate for 2004 for the Baltimore PMSA (33 cases per 100,000) ranked behind Fort Lauderdale and Miami (each at 58 per 100,000), New York City (57 per 100,000), West Palm Beach (40 per 100,000), Washington, DC, and Baton Rouge (each at 35 per 100,000), and San Francisco (34 per 100,000) (CDC 2005).

The Baltimore PMSA accounted for 63 percent of both Maryland's incident and prevalent HIV cases, 61 percent of its incident AIDS cases, and 60 percent of its prevalent AIDS cases (AIDS Administration 2005). Baltimore City alone accounted for 51 percent of Maryland's 2004 incident and prevalent HIV cases, 46 percent of its incident AIDS cases, and 47 percent of its prevalent AIDS cases. The Baltimore metropolitan area had an AIDS incidence rate of 31 per 100,000 population for 2004 and an HIV incidence rate of 53 per 100,000. The AIDS prevalence rate in the Baltimore metropolitan area in 2004 was 303 per 100,000 population, and the HIV prevalence rate was 402 per 100,000.

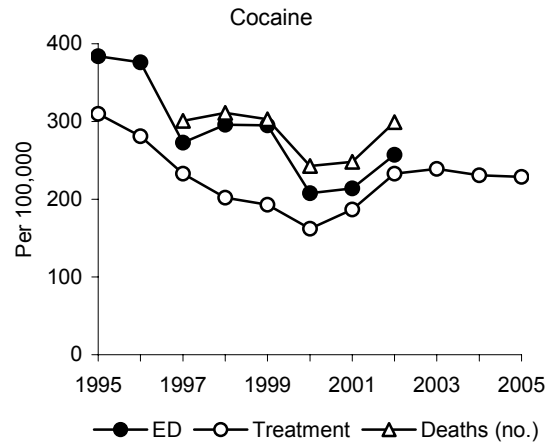
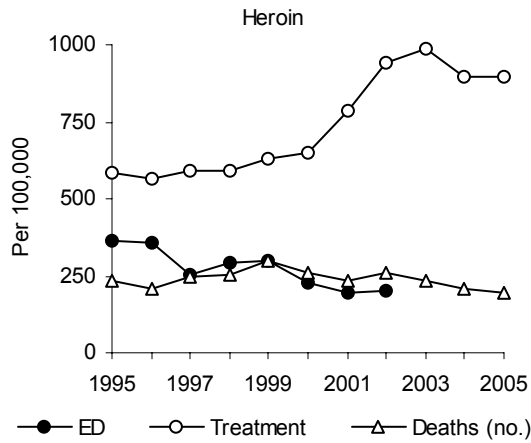
In 2004, Baltimore City's prevalent HIV/AIDS cases were 62 percent male and 81 percent African-American (AIDS Administration 2005). Forty-three percent were age 40–49, 22 percent were age 30–39, and 21 percent were age 50–59. Fifty-five percent of the prevalent HIV/AIDS cases in Baltimore City in which the risk category was determined were injection drug users (IDUs), 15 percent were non-IDU men who had sex with men, and 27 percent involved heterosexual transmission. In the suburban counties, prevalent HIV/AIDS cases were 65 percent male and 55 percent African-American. Forty-one percent were age 40–49, and another 27 percent were age 30–39. For cases in which the risk category was determined, 34 percent of prevalent HIV/AIDS cases in the suburban counties were IDUs, 29 percent were non-IDU men who had sex with men, and 33 percent involved heterosexual transmission. In Maryland as a whole, IDUs represented 40 percent of prevalent HIV/AIDS cases in 2004.

In 2004, Maryland had the 2nd highest rate of syphilis (7 cases per 100,000 population) and the 12th highest rates of gonorrhea (151 per 100,000 population) and chlamydia (362 per 100,000 population) in the Nation (CDC 2004). In 2004, Baltimore City ranked third among the 20 cities most burdened by STDs for syphilis (33 per 100,000 population), fourth

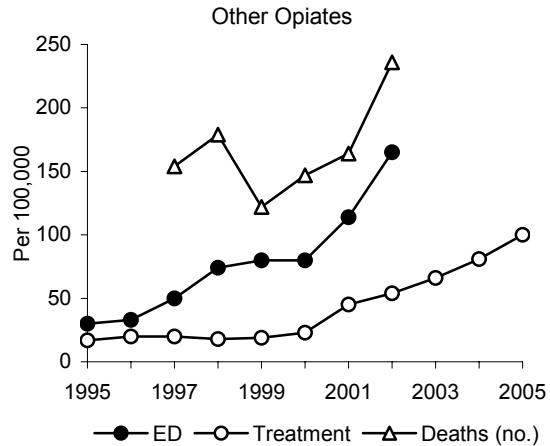
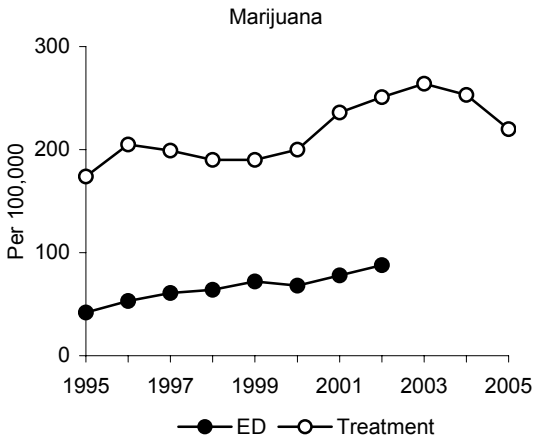
for gonorrhea (626 per 100,000 population), and seventh for chlamydia (1,058 per 100,000 population).

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**Exhibit 1. Annual Rates of Drug-Related Treatment Admissions and ED Mentions per 100,000 Population, and Numbers of Drug-Related Deaths in Baltimore: 1995–2005**



\*Deaths are opiate-related deaths for Baltimore City only.



SOURCES: DAWN, OAS, SAMHSA, and Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

Exhibit 2. Characteristics of Drug-Related Treatment Admissions in Baltimore, by Percent: 2001-2005

	Total PMSA					Baltimore City					PMSA excluding Baltimore City				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
(Number of Admissions)	(33,419)	(37,804)	(39,826)	(37,750)	(37,108)	(16,077)	(20,485)	(22,370)	(22,872)	(24,083)	(17,342)	(17,319)	(17,456)	(14,878)	(13,025)
Primary Substance (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Alcohol with Secondary Drug	17.7	14.2	13.3	13.7	13.0	7.8	7.2	6.6	7.5	6.6	26.8	22.5	22.0	23.2	25.0
Cocaine	12.0	13.3	13.1	13.4	13.6	12.1	13.6	12.9	13.5	12.7	11.9	12.9	13.3	13.2	15.4
Smoked	8.9	10.2	9.8	10.5	10.5	9.4	11.2	10.5	11.2	10.4	8.4	9.0	8.9	9.5	10.7
Intranasal	0.9	1.7	2.0	1.7	1.8	1.5	1.1	1.2	1.1	1.0	2.3	2.5	3.1	2.7	3.3
Injected	0.9	1.2	1.0	0.8	1.1	1.0	1.2	1.0	0.9	1.2	0.9	1.2	0.9	0.7	1.0
Other	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.3	0.3	0.3	0.4
Marijuana/Hashish	15.1	14.3	14.4	14.6	13.0	12.0	11.7	11.7	11.0	9.3	18.0	17.4	17.8	20.2	20.0
Heroin	50.2	53.7	54.0	52.0	53.0	66.4	65.4	66.1	64.0	65.2	35.3	39.9	38.5	33.6	30.3
Injected	22.7	25.0	25.7	25.1	25.7	26.9	27.1	28.1	27.9	28.9	18.8	22.5	22.7	20.9	19.8
Intranasal	24.8	25.8	25.2	25.3	25.9	36.0	34.6	34.6	34.5	34.9	14.3	15.3	13.1	11.2	9.2
Other	2.8	3.0	3.1	1.6	1.4	3.5	3.7	3.4	1.7	1.5	2.2	2.1	2.7	1.5	1.3
Other Opiates	2.9	3.1	3.6	4.7	6.0	1.1	1.4	1.6	3.0	5.2	4.5	5.0	6.2	7.3	7.4
Stimulants	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.6
All Other	1.9	1.2	1.4	1.3	1.1	0.5	0.5	1.1	0.9	1.0	3.2	1.9	1.8	2.0	1.4
<b>Primary Substance (annual admissions per 100,000 population aged 12+)</b>															
Alcohol with Secondary Drug	276	250	245	237	220	235	281	282	334	310	289	239	233	207	193
Cocaine	187	233	239	231	229	363	528	552	597	599	129	137	141	117	118
Smoked	139	178	180	182	177	282	433	451	497	490	91	95	94	85	82
Intranasal	29	30	37	30	31	44	43	50	51	49	24	26	33	24	25
Injected	15	21	18	14	18	30	46	44	41	54	9	13	10	6	7
Other	5	4	4	4	4	7	6	7	9	6	4	3	3	3	3
Marijuana/Hashish	236	251	264	253	220	359	454	504	488	438	195	185	188	180	154
Heroin	784	942	990	899	893	1,992	2,536	2,832	2,841	3,085	381	425	408	299	233
Injected	354	438	472	434	433	808	1,050	1,204	1,237	1,366	203	239	240	186	153
Intranasal	386	452	462	437	436	1,081	1,343	1,483	1,531	1,649	155	163	139	100	71
Other	44	52	56	27	24	104	143	145	74	69	24	22	29	13	10
Other Opiates	45	54	66	81	100	33	56	67	131	246	49	53	66	65	57
Stimulants	2	3	4	4	4	2	2	5	7	4	2	3	3	3	4
All Other	30	21	26	23	19	16	20	47	40	49	35	21	19	18	11
<b>Secondary Substance (%)<sup>1)</sup></b>															
None	24.9	24.9	26.3	27.7	29.5	29.1	26.3	28.6	29.2	32.6	21.1	23.2	23.5	25.3	23.6
Alcohol	28.6	28.9	28.3	26.9	23.9	28.8	29.4	28.0	26.4	22.6	28.4	28.2	28.6	27.6	26.5
Cocaine	35.2	38.3	37.7	36.7	36.2	42.2	44.4	44.3	43.0	40.9	28.7	31.0	29.2	27.1	27.6
Marijuana/Hashish	20.8	20.1	17.8	17.3	16.9	13.8	14.5	11.7	11.7	10.3	27.4	26.8	25.8	26.1	29.1
Heroin	5.6	6.7	6.3	5.5	7.6	5.7	7.3	6.7	6.1	8.4	5.6	6.1	5.8	4.5	6.2
Other Opiates	3.1	3.5	3.7	4.3	4.9	1.5	1.7	1.7	2.6	3.7	4.6	5.6	6.2	6.9	7.2
All Other	8.5	6.1	6.4	7.1	6.3	2.8	3.3	3.2	5.4	5.0	13.8	9.5	10.7	9.7	8.7

<sup>1)</sup>"Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.

SOURCE: Based on data from Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

Exhibit 3. Characteristics of Primary Cocaine Treatment Admissions in Baltimore, by Percent: 2001-2005

	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
(Number of Admissions)	(4,013)	(5,029)	(5,199)	(5,040)	(5,051)	(1,944)	(2,790)	(2,878)	(3,077)	(3,049)	(2,069)	(2,239)	(2,321)	(1,963)	(2,002)
Percent of All Admissions	12.0	13.3	13.1	13.4	13.6	12.1	13.6	12.9	13.5	12.7	11.9	12.9	13.3	13.2	15.4
Gender															
Male	55.6	55.3	60.0	57.7	58.4	49.8	51.2	55.5	54.4	54.5	61.0	60.5	65.6	63.0	64.3
Female	44.4	44.7	40.0	42.3	41.6	50.2	48.8	44.5	45.6	45.5	39.0	39.5	34.4	37.0	35.7
Age at Admission															
Younger than 18	1.2	1.1	1.0	2.0	1.8	1.2	1.1	1.0	1.7	0.5	1.2	1.2	1.1	2.5	3.8
18-25	8.6	7.5	8.0	8.0	9.8	4.9	3.7	4.8	4.9	6.0	12.1	12.3	12.0	12.9	15.5
26-34	25.5	24.1	22.1	20.6	18.5	22.0	20.1	17.0	16.9	16.8	28.9	29.2	28.4	26.3	20.9
35 and older	64.4	67.1	68.7	69.4	69.9	71.7	75.0	77.1	76.5	76.6	57.6	57.2	58.3	58.3	59.7
(Median Age at Admission)	(37 yrs)	(38 yrs)	(39 yrs)	(39 yrs)	(39 yrs)	(38 yrs)	(39 yrs)	(40 yrs)	(40 yrs)	(41 yrs)	(36 yrs)	(36 yrs)	(36 yrs)	(37 yrs)	(37 yrs)
Race/Ethnicity															
White	37.2	34.8	36.2	36.7	38.1	14.6	14.3	15.6	17.3	17.1	58.4	60.3	61.8	67.1	70.2
African-American	61.4	63.5	61.4	61.3	59.8	84.4	84.6	82.8	81.5	81.3	39.7	37.2	34.8	29.7	26.9
Hispanic	0.6	0.9	1.5	1.3	1.4	0.3	0.5	0.9	0.7	1.2	0.8	1.3	2.2	2.1	1.6
Other	0.8	0.7	0.7	0.6	0.7	0.7	0.4	0.3	0.4	0.4	0.9	1.1	1.2	1.0	1.2
Route of Administration															
Smoking	74.2	76.4	75.2	78.9	77.0	77.8	82.0	81.7	83.3	81.9	70.7	69.4	67.1	72.0	69.7
Intranasal	15.6	13.0	15.6	13.1	13.3	12.0	8.1	9.1	8.5	8.1	18.9	19.1	23.6	20.2	21.2
Injection	7.7	8.9	7.6	6.3	8.0	8.2	8.7	8.0	6.8	9.1	7.3	9.2	7.1	5.4	6.2
Other	2.4	1.6	1.6	1.8	1.7	1.9	1.1	1.2	1.4	1.0	2.9	2.3	2.2	2.4	2.8
Daily Use	36.1	41.0	40.1	42.2	44.3	42.2	52.0	49.1	47.7	51.4	30.4	27.4	29.0	33.7	33.5
Criminal Justice Referral	37.2	32.1	31.4	32.5	31.4	31.6	25.3	25.9	28.8	28.4	42.4	40.6	38.1	38.3	36.1
User/Treatment Status															
First Treatment (3 Years' Use or Less)	7.7	7.4	6.9	7.6	7.6	7.6	6.2	6.4	5.1	4.9	7.9	8.8	7.5	11.4	11.8
First Treatment (More than 3 Years' Use)	33.2	34.7	32.9	31.0	31.2	32.9	34.0	31.7	28.5	29.4	33.4	35.6	34.5	34.8	33.8
Prior Treatment	58.6	57.7	60.1	61.4	61.3	59.1	59.6	61.9	66.2	65.8	58.1	55.3	57.8	53.8	54.4
(Median Duration of Use)	(11 yrs)	(12 yrs)	(12 yrs)	(12 yrs)	(12 yrs)	(11 yrs)	(12 yrs)	(12 yrs)	(13 yrs)	(13 yrs)	(11 yrs)	(11 yrs)	(12 yrs)	(11 yrs)	(11 yrs)
Secondary Substance <sup>2</sup>															
None	29.0	27.7	29.9	31.2	30.3	34.3	29.5	33.5	32.7	33.2	24.1	25.5	25.4	28.7	25.8
Alcohol	46.5	46.4	45.3	45.1	39.2	41.0	43.6	40.4	41.5	33.9	51.8	49.9	51.5	50.7	47.3
Marijuana/Hashish/THC	25.5	23.6	21.9	22.7	22.3	19.8	19.7	18.0	18.4	16.8	30.9	28.5	26.6	29.3	30.7
Heroin	21.3	26.7	24.5	20.6	27.3	26.5	32.4	28.9	26.1	33.7	16.5	19.6	19.0	12.0	17.5
Intranasal	11.8	16.5	13.6	12.7	14.6	17.1	22.2	17.5	17.3	19.5	6.8	9.4	8.6	5.6	6.9
Injected	7.1	8.2	8.8	6.4	11.1	7.0	8.0	9.1	7.2	12.6	7.1	8.4	8.3	5.3	8.7
Other Opiates	1.6	2.0	2.4	2.9	3.0	0.7	0.9	0.8	1.6	1.4	2.5	3.4	4.3	5.0	5.5
All Other	4.5	3.3	3.5	5.1	3.7	0.8	1.1	1.6	4.5	2.4	7.9	6.0	5.9	6.1	5.8

<sup>1</sup>For first-time treatment admissions.

<sup>2</sup>"Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.

SOURCE: Based on data from Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene



**Exhibit 4. Characteristics of Cocaine Treatment Admissions (Primary and Secondary) in Baltimore, by Route of Administration and Percent: 2005**

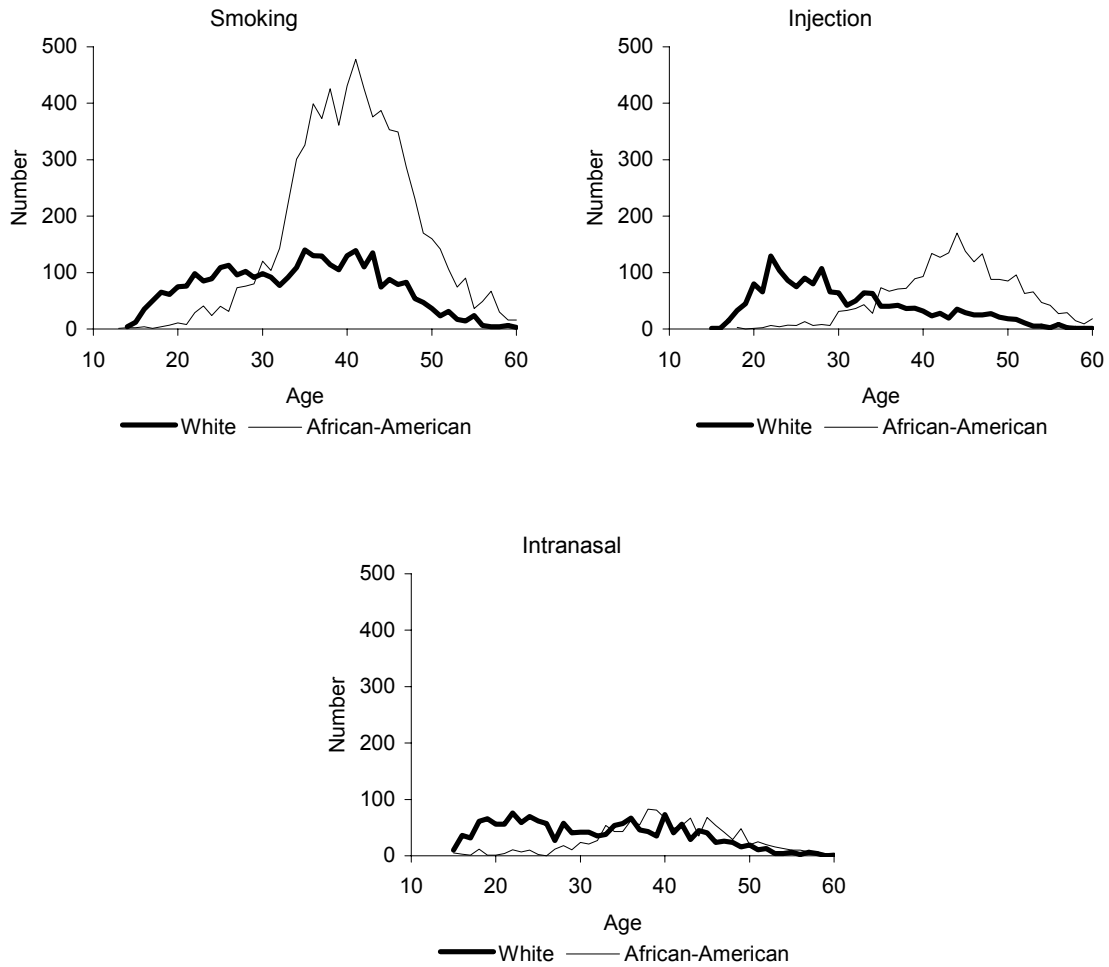
	Route of Administration for Primary Cocaine Use					Route of Administration for Secondary Cocaine Use				
	Total	Smoked	Intranasal	Injected	Other	Total	Smoked	Intranasal	Injected	Other
(Number of Cocaine Admissions)	(5,050)	(3,891)	(672)	(402)	(85)	(13,378)	(7,099)	(2,292)	(3,803)	(184)
Percent of Cocaine Admissions	100.0	77.0	13.3	8.0	1.7	100.0	52.0	16.8	29.8	1.4
Gender										
Male	58.4	55.8	67.3	67.2	64.7	54.7	45.9	67.3	63.0	64.1
Female	41.6	44.2	32.7	32.8	36.5	45.4	54.1	32.7	37.0	35.9
Age at Admission										
Younger than 18	1.8	1.4	5.4	0.2	-	1.0	0.8	2.3	0.4	4.9
18-25	9.8	7.2	20.2	16.4	14.1	12.0	7.7	18.9	15.5	21.2
26-34	18.5	18.0	18.8	23.4	14.1	19.6	18.9	21.4	19.9	21.7
35 and older	69.9	73.3	55.8	60.0	72.9	67.3	72.7	57.4	64.2	52.2
(Median Age at Admission)	(39 yrs)	(40 yrs)	(36 yrs)	(38 yrs)	(39 yrs)	(39 yrs)	(39 yrs)	(36 yrs)	(40 yrs)	(35 yrs)
Race/Ethnicity										
White	38.5	33.2	63.2	47.5	43.5	37.4	29.0	54.2	41.9	53.3
African-American	60.1	65.4	35.6	50.2	55.3	61.6	70.2	43.9	56.9	45.7
Other	1.4	1.4	1.2	2.2	2.4	1.1	0.8	1.9	1.2	1.1
Daily Use	44.3	45.6	35.1	49.3	32.9	40.5	41.4	25.7	48.2	29.3
Criminal Justice Referral	31.4	30.6	39.1	29.9	15.3	26.5	25.6	36.6	21.7	36.4
User/Treatment Status										
First Treatment (3 Years' Use or Less)	7.6	7.2	13.2	2.2	5.9	5.5	4.9	10.0	3.8	9.2
First Treatment (More than 3 Years' Use)	31.1	30.6	32.4	31.3	44.7	23.4	22.0	28.6	23.0	23.9
Prior Treatment	61.3	62.2	54.3	66.4	50.6	71.1	73.2	61.4	73.2	66.8
(Median Duration of Cocaine Use)	(12 yrs)	(12 yrs)	(8 yrs)	(16 yrs)	(13 yrs)	(13 yrs)	(13 yrs)	(9 yrs)	(15 yrs)	(10 yrs)
Urbanicity										
Baltimore City	60.4	64.1	36.8	68.9	34.1	73.3	79.0	50.4	77.1	56.5
Suburban Counties	39.6	35.9	63.2	31.1	67.1	26.7	21.0	49.6	22.8	42.9
Primary or Secondary Substance										
None	30.3	33.2	24.0	11.4	37.6	-	-	-	-	-
Alcohol	39.2	39.5	48.2	22.9	34.1	16.2	17.7	31.7	3.9	23.4
Marijuana/Hashish/THC	22.3	22.1	32.4	9.0	16.5	2.9	2.9	6.7	0.5	6.5
Heroin	27.3	24.0	19.0	76.1	14.1	77.3	76.1	54.8	93.7	65.2
Intranasal	14.6	16.7	11.6	1.7	3.5	35.6	53.0	38.6	2.0	22.3
Injected	11.1	6.0	3.7	72.9	8.2	40.2	21.3	14.0	91.4	34.2
Other Opiates	3.0	2.5	4.6	4.7	5.9	3.0	2.7	6.1	1.5	3.3
All Other	3.7	3.5	5.4	2.0	9.4	0.6	0.7	0.7	0.4	1.6

<sup>1</sup> "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.

- Quantity is zero.

SOURCE: Based on data from Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

**Exhibit 5. Numbers of Primary, Secondary, and Tertiary Cocaine Treatment Admissions in Baltimore, by Route of Administration, Age, and Race: 2005**



SOURCE: Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

Exhibit 6. Characteristics of Primary Heroin Treatment Admissions in Baltimore, by Percent: 2001-2005

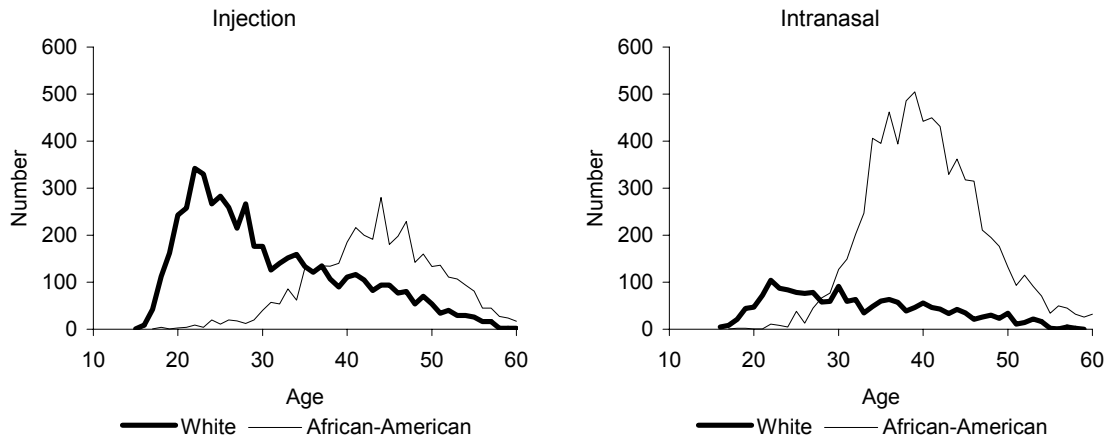
	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
(Number of Admissions)	(16,787)	(20,313)	(21,502)	(19,644)	(19,653)	(10,670)	(13,398)	(14,777)	(14,644)	(15,704)	(6,117)	(6,915)	(6,725)	(5,000)	(3,949)
Percent of All Admissions	50.2	53.7	54.0	52.0	53.0	66.4	65.4	66.1	64.0	65.2	35.3	39.9	38.5	33.6	30.3
Gender															
Male	55.9	57.3	56.4	56.5	56.9	52.4	54.8	53.8	54.6	55.8	62.0	62.2	62.2	62.2	61.3
Female	44.1	42.7	43.6	43.5	43.1	47.6	45.2	46.2	45.4	44.2	38.0	37.8	37.8	37.8	38.7
Age at Admission															
Younger than 18	0.8	1.0	0.8	0.7	0.4	0.3	0.6	0.4	0.4	0.2	1.8	1.7	1.7	1.4	1.0
18-25	14.0	14.2	13.7	13.9	14.2	6.6	6.8	6.3	7.9	8.9	27.0	28.5	30.2	31.5	35.4
26-34	30.8	27.6	24.2	23.2	21.0	30.5	26.9	23.2	21.4	19.5	31.4	28.9	26.5	28.4	26.9
35 and older	54.2	57.1	61.0	62.3	64.4	62.5	65.6	70.0	70.3	71.3	39.6	40.6	41.4	38.6	36.7
(Median Age at Admission)	(35 yrs)	(36 yrs)	(37 yrs)	(37 yrs)	(38 yrs)	(37 yrs)	(38 yrs)	(39 yrs)	(39 yrs)	(39 yrs)	(32 yrs)	(32 yrs)	(32 yrs)	(31 yrs)	(29 yrs)
Race/Ethnicity															
White	32.7	34.1	34.4	36.8	36.9	16.2	18.8	19.4	23.9	28.0	61.5	63.7	67.3	74.4	72.7
African-American	65.7	64.2	63.9	61.1	60.2	82.9	79.8	79.1	74.4	70.3	35.8	33.9	30.5	22.2	20.3
Hispanic	0.8	0.8	0.9	1.4	2.0	0.5	0.6	0.8	1.1	1.0	1.3	1.3	1.1	2.5	6.1
Other	0.7	0.7	0.7	0.7	0.8	0.4	0.6	0.5	0.6	0.7	1.3	1.1	1.0	0.9	1.0
Route of Administration															
Intranasal	49.3	48.0	46.6	48.6	48.8	54.3	53.0	52.4	53.9	53.5	40.6	38.4	34.1	33.3	30.3
Injection	45.1	46.5	47.7	48.3	48.5	40.5	41.4	42.5	43.5	44.3	53.2	56.4	58.9	62.3	65.4
Other	5.5	5.4	5.6	3.1	2.7	5.1	5.6	5.1	2.6	2.2	6.2	5.1	6.8	4.4	4.3
Daily Use	71.7	73.1	74.1	74.9	78.3	75.4	78.4	77.9	77.7	80.8	65.4	62.8	65.5	66.5	68.2
Criminal Justice Referral	27.8	23.4	22.8	24.5	21.1	27.8	24.2	23.4	24.4	20.8	28.0	22.0	21.6	24.7	21.9
User/Treatment Status															
First Treatment (3 Years' Use or Less)	8.1	7.4	6.1	6.3	6.0	5.8	5.2	4.0	4.2	4.5	12.1	11.8	10.5	12.6	11.8
First Treatment (More than 3 Years' Use)	27.5	28.2	24.6	26.2	23.7	29.2	29.8	26.2	26.4	22.8	24.5	25.1	21.3	25.7	27.3
Prior Treatment	64.1	64.1	69.2	67.4	70.3	64.8	64.9	69.7	69.4	72.7	63.0	62.7	67.9	61.7	60.9
(Median Duration of Use) <sup>1</sup>	(10 yrs)	(11 yrs)	(12 yrs)	(12 yrs)	(12 yrs)	(12 yrs)	(12 yrs)	(14 yrs)	(14 yrs)	(14 yrs)	(6 yrs)	(7 yrs)	(7 yrs)	(7 yrs)	(7 yrs)
Secondary Substance <sup>2</sup>															
None	29.7	26.9	28.4	29.0	32.6	30.6	26.5	28.3	28.6	33.2	28.1	27.9	28.7	29.9	30.4
Alcohol	25.3	25.3	24.2	23.0	20.1	25.0	25.3	24.4	23.3	20.3	25.8	25.3	23.7	22.0	19.3
Cocaine	53.4	56.4	55.8	55.0	52.6	56.2	60.0	59.5	58.0	53.9	48.4	49.4	47.7	46.2	47.6
Smoked	21.3	24.0	25.0	26.7	27.7	24.2	27.9	29.0	30.0	30.2	16.2	16.3	16.1	17.1	17.5
Intranasal	8.8	8.6	7.7	7.2	6.5	8.0	7.9	7.2	6.5	5.7	10.0	9.9	8.6	9.2	9.3
Injected	21.6	22.5	21.9	20.5	18.2	22.0	22.6	22.0	20.9	17.8	20.9	22.2	21.8	19.2	19.8
Marijuana/Hashish/THC	13.5	14.4	12.1	11.3	10.2	10.0	12.1	9.1	8.5	7.9	19.7	19.1	18.7	19.5	19.5
Other Opiates	3.2	3.7	3.6	4.3	5.1	1.5	1.9	1.7	2.5	3.8	6.2	7.1	7.7	9.6	10.1
All Other	3.5	3.8	3.7	4.9	4.6	1.8	2.5	2.4	4.6	4.1	6.4	6.2	6.6	5.7	6.8

<sup>1</sup>For first-time treatment admissions.

<sup>2</sup>“Secondary substance” totals equal more than 100 percent because they include secondary and tertiary substances.

SOURCE: Based on data from Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

**Exhibit 7. Numbers of Primary Heroin Treatment Admissions in Baltimore, by Route of Administration, Age, and Race: 2005**



SOURCE: Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

**Exhibit 8. Characteristics of Heroin Treatment Admissions in Baltimore, by Route of Administration, Race, and Percent: 2005**

Characteristic	Total	Route of Administration and Race				All Other Routes & Races
		Intranasal		Injection		
		African-American	White	African-American	White	
(Number of Heroin Admissions)	(19,655)	(7,650)	(1,843)	(3,963)	(5,449)	(750)
Percent of All Heroin Admissions	100.0	38.9	9.4	20.2	27.7	3.8
Gender						
Male	56.9	54.2	53.9	62.8	56.8	60.8
Female	43.1	45.8	46.1	37.2	43.2	39.2
Age at Admission						
Younger than 18	0.4	*	0.7	*	1.0	1.3
18-25	14.2	0.9	29.1	1.4	36.6	18.5
26-34	21.0	17.4	30.7	9.3	30.7	25.7
35 and older	64.4	81.7	39.5	89.3	31.7	54.5
(Median Age at Admission)	(38 yrs)	(40 yrs)	(31 yrs)	(44 yrs)	(28 yrs)	(35 yrs)
Daily Use	78.3	76.2	83.6	76.4	81.7	70.7
Criminal Justice Referral	21.0	29.2	10.3	22.6	11.8	23.9
User/Treatment Status						
First Treatment (≤ 3 Years' Use)	6.0	2.1	20.0	0.8	10.2	7.7
First Treatment (> 3 Years' Use)	23.7	26.0	19.9	23.5	21.6	26.4
Prior Treatment	70.3	71.9	60.2	75.7	68.3	65.9
(Median Duration of Use) <sup>1</sup>	(12 yrs)	(16 yrs)	(3 yrs)	(23 yrs)	(6 yrs)	(11 yrs)
Urbanicity						
Baltimore City	79.9	93.5	63.5	92.8	58.7	67.9
Suburban Counties	20.1	6.5	36.5	7.2	41.4	32.3
Secondary Substance <sup>2</sup>						
None	32.6	33.7	37.9	22.6	35.9	37.6
Alcohol	20.1	22.7	14.0	23.5	16.1	19.6
Cocaine	52.6	53.4	34.4	70.1	46.7	39.6
Smoked	27.7	43.8	21.0	17.1	15.8	22.0
Intranasal	6.5	8.7	11.6	2.2	4.3	9.2
Injected	18.2	0.7	1.4	51.2	26.1	6.4
Marijuana/Hashish/THC	10.2	10.4	14.8	5.6	11.3	14.8
Other Opiates	5.1	2.2	14.2	1.9	7.9	8.9
All Other	4.6	1.7	9.2	2.5	8.7	4.3

<sup>1</sup>For first-time treatment admissions.

<sup>2</sup>"Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.

\* Less than 0.05%.

SOURCE: Based on data from Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

Exhibit 9. Characteristics of Admissions for Opiates Other than Heroin1 (Primary and Secondary Use) in Baltimore, by Route of Administration and Percent: 2001-2005

	Primary Use of Opiates Other than Heroin					Secondary Use of Opiates Other than Heroin				
	2001 (961) 48.7	2002 (1,155) 47.4	2003 (1,429) 50.0	2004 (1,765) 53.3	2005 (2,211) 57.3	2001 (1,012) 51.3	2002 (1,284) 52.6	2003 (1,429) 50.0	2004 (1,547) 46.7	2005 (1,648) 42.7
(Number of Non-Heroin Opiate Admissions)										
Pct of Primary and Secondary Admissions										
Gender										
Male	51.6	53.4	56.8	53.8	54.3	60.5	56.6	57.0	57.5	57.8
Female	48.4	46.6	43.2	46.2	45.7	39.5	43.4	43.0	42.5	42.2
Age at Admission										
Younger than 18	1.8	3.6	2.3	3.1	1.9	8.2	7.2	8.8	9.4	5.5
18-25	19.8	20.2	28.0	24.6	25.0	19.3	25.4	24.9	27.2	26.7
26-34	23.0	21.2	21.3	22.7	28.0	25.1	24.0	23.0	22.1	26.1
35 and older	55.4	55.1	48.4	49.7	45.1	47.3	43.5	43.3	41.3	41.7
(Median Age at Admission)	(36 yrs)	(36 yrs)	(34 yrs)	(34 yrs)	(33 yrs)	(34 yrs)	(32 yrs)	(32 yrs)	(31 yrs)	(32 yrs)
Race/Ethnicity										
White	90.8	90.0	89.9	86.7	84.5	82.6	80.7	81.0	84.0	77.9
African-American	7.4	8.6	9.1	11.7	13.3	15.9	18.3	17.2	14.6	19.8
Other	1.8	1.5	1.0	1.6	2.2	1.5	1.0	1.8	1.4	2.3
Route of Administration										
Oral	86.7	86.4	77.4	81.2	80.3	87.1	84.4	81.7	86.3	84.6
Intranasal	6.0	6.6	14.7	12.2	13.4	4.9	7.4	8.8	9.0	9.6
Other	7.3	7.0	7.9	6.5	6.3	8.0	8.2	9.4	4.7	5.8
Daily Use	80.6	77.1	77.5	77.8	82.4	48.3	44.6	45.9	45.1	47.7
Criminal Justice Referral	10.7	8.3	9.6	9.5	7.4	17.4	16.3	16.4	15.8	16.2
User/Treatment Status										
First Treatment (3 Years' Use or Less)	28.7	21.6	26.5	27.6	29.3	21.3	21.1	19.6	21.1	22.6
First Treatment (More than 3 Years' Use)	17.7	20.9	19.0	21.9	22.0	13.7	16.1	13.4	19.1	20.6
Prior Treatment	53.6	57.5	54.5	50.5	48.7	65.0	62.8	67.0	59.8	56.8
(Median Duration of Opiate Use <sup>2</sup> )	(3 yrs)	(3 yrs)	(3 yrs)	(3 yrs)	(3 yrs)	(2 yrs)	(3 yrs)	(3 yrs)	(3 yrs)	(3 yrs)
Urbanicity										
Baltimore City	18.4	25.5	24.4	38.2	56.7	23.2	26.9	25.8	35.9	48.0
Suburban Counties	81.6	74.5	75.6	61.8	43.3	76.9	73.1	74.2	64.1	52.0
Primary or Secondary Substance <sup>3</sup>	Secondary Substance					Primary Substance				
None	42.7	45.8	39.7	48.3	41.7	n/a	n/a	n/a	n/a	n/a
Alcohol	20.9	20.7	24.1	16.8	15.5	23.4	20.9	23.6	20.9	17.5
Cocaine	12.2	11.7	16.9	14.9	17.9	6.4	7.9	8.7	9.5	9.3
Marijuana/Hashish/THC	14.6	14.5	16.7	13.3	12.2	9.4	9.0	9.0	11.5	7.9
Heroin	8.6	11.3	10.2	10.7	17.9	53.9	57.9	53.6	54.4	60.9
Intranasal	6.0	6.1	6.4	5.9	11.3	24.2	26.1	21.9	22.3	26.8
Injected	2.1	4.0	3.2	4.2	5.5	27.7	27.6	28.5	30.3	31.6
Tranquilizers	10.4	8.1	8.3	8.2	10.6	3.2	1.8	2.1	1.8	2.5
All Other	11.3	7.4	11.3	6.3	3.4	3.8	2.6	3.0	1.9	2.0

<sup>1</sup>Includes codeine, hydrocodone, hydromorphone, meperidine, methadone, morphine, opium, oxycodone, pentazocine, propoxyphene, tramadol, and any other drug with morphine-like effects.

<sup>2</sup>For first-time treatment admissions.

<sup>3</sup>Secondary substance totals equal more than 100 percent because they include secondary and tertiary substances.

n/a Not applicable.

SOURCE: Based on data from Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

Exhibit 10. Characteristics of Primary Marijuana Treatment Admissions in Baltimore, by Percent: 2001-2005

	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
(Number of Admissions)	(5,052)	(5,415)	(5,737)	(5,524)	(4,837)	(1,925)	(2,400)	(2,628)	(2,515)	(2,230)	(3,127)	(3,015)	(3,109)	(3,009)	(2,607)
Percent of All Admissions	15.1	14.3	14.4	14.6	13.0	12.0	11.7	11.7	11.0	9.3	18.0	17.4	17.8	20.2	20.0
Gender															
Male	82.1	81.2	82.5	81.8	81.5	80.4	79.3	81.7	80.4	80.6	83.2	82.8	83.1	83.1	82.2
Female	17.9	18.8	17.5	18.2	18.5	19.6	20.7	18.3	19.6	19.4	16.8	17.2	16.9	16.9	17.8
Age at Admission															
Younger than 18	47.7	47.6	45.0	45.4	39.4	57.7	59.5	53.2	54.1	42.9	41.6	38.1	38.0	38.2	36.3
18-25	31.7	33.2	35.7	34.5	36.9	24.1	23.7	28.9	27.2	30.0	36.4	40.7	41.4	40.6	42.8
26-34	11.3	10.6	10.9	11.9	12.8	9.6	9.0	10.5	11.8	14.6	12.3	11.9	11.3	12.0	11.4
35 and older	9.3	8.6	8.4	8.1	10.9	8.6	7.7	7.4	6.9	12.5	9.8	9.3	9.3	9.2	9.5
(Median Age at Admission)	(18 yrs)	(18 yrs)	(18 yrs)	(18 yrs)	(19 yrs)	(17 yrs)	(17 yrs)	(17 yrs)	(17 yrs)	(19 yrs)	(19 yrs)	(19 yrs)	(19 yrs)	(19 yrs)	(19 yrs)
Race/Ethnicity															
White	48.5	45.2	43.1	43.7	42.0	23.3	23.1	20.0	19.8	16.0	64.0	62.8	62.6	63.8	64.3
African-American	48.8	51.6	53.7	52.6	54.2	75.4	75.0	77.4	77.9	81.4	32.4	32.9	33.6	31.4	30.9
Hispanic	1.5	1.6	1.8	2.3	2.4	0.7	0.8	1.6	1.7	1.8	2.0	2.3	2.0	2.8	3.0
Other	1.2	1.6	1.5	1.4	1.3	0.6	1.0	1.0	0.6	0.8	1.6	2.0	1.8	2.0	1.8
Daily Use	36.6	39.3	37.2	36.5	33.2	48.5	50.0	48.8	48.8	41.9	29.3	30.7	27.3	26.2	25.7
Criminal Justice Referral	63.8	64.1	62.5	62.1	62.3	61.0	61.0	58.4	57.8	59.1	65.5	66.5	66.0	65.6	65.1
User/Treatment Status															
First Treatment (3 Years' Use or Less)	33.1	31.8	30.0	28.7	30.5	37.6	35.7	31.1	26.4	30.9	30.3	28.7	29.1	30.6	30.2
First Treatment (More than 3 Years' Use)	37.9	37.4	36.1	36.7	35.7	38.8	36.2	34.8	33.4	36.4	37.3	38.3	37.3	39.4	35.2
Prior Treatment	29.0	30.8	33.9	34.7	33.8	23.6	28.1	34.1	40.2	32.8	32.4	33.0	33.6	30.0	34.6
(Median Duration of Use) <sup>1</sup>	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)	(4 yrs)
Secondary Substance <sup>2</sup>															
None	32.3	34.0	36.3	38.6	40.4	33.2	35.4	39.1	42.5	45.8	31.7	32.9	34.0	35.3	35.9
Alcohol	57.9	56.2	55.1	52.8	50.0	57.5	55.5	53.3	48.5	43.3	58.2	56.7	56.6	56.4	55.7
Cocaine	9.0	9.3	8.0	8.3	8.1	8.4	8.3	6.9	8.0	6.8	9.3	10.2	8.8	8.5	9.1
Smoked	4.1	4.0	3.6	3.9	4.2	3.5	3.2	3.3	4.5	3.5	4.5	4.6	3.8	3.3	4.8
Intranasal	3.7	4.1	3.2	3.7	3.2	3.8	2.9	2.1	2.7	2.2	3.6	5.0	4.2	4.6	4.0
Heroin	4.3	4.8	3.8	2.9	4.7	4.3	4.8	3.8	3.3	7.5	4.3	4.8	3.9	2.6	2.3
Intranasal	2.7	2.9	2.1	1.5	3.1	3.1	2.9	2.2	1.9	5.6	2.5	3.0	2.1	1.3	1.0
Other Opiates	1.9	2.1	2.2	3.2	2.7	1.9	1.5	1.6	2.7	1.7	1.9	2.7	2.8	3.6	3.5
Hallucinogens	5.9	4.2	3.8	3.3	2.0	3.6	4.3	3.5	3.1	2.8	7.4	4.2	4.1	3.5	1.3
All Other	4.7	4.8	5.1	4.0	6.2	3.0	3.6	4.2	3.7	7.1	5.7	5.8	5.8	4.2	5.5

<sup>1</sup>For first-time treatment admissions.

<sup>2</sup>Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.

SOURCE: Based on data from Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

# Greater Boston Patterns and Trends in Drug Abuse: June 2006

Daniel P. Dooley<sup>1</sup>

## ABSTRACT

*Cocaine indicators for Boston remain fairly stable at high levels. However, increases in the number of crack admissions in FY 2005 caused the proportion of combined cocaine or crack treatment admissions to increase slightly for the first time in 7 years. Though the proportion remained stable, the number of cocaine drug arrests (Class B) increased in 2005. Heroin abuse remains at very high levels in Boston, but the most recent indicators are beginning to show downward movement. Though the proportion of heroin treatment admissions increased slightly in FY 2005, analysis of the first three quarters of FY 2006 suggest a 9-year trend of rising proportions of heroin treatment admissions may be coming to an end. The number of heroin calls to the substance abuse Helpline decreased substantially (30 percent) from FY 2004 to FY 2005. The 2005 levels of heroin drug arrests (Class A) and drug lab samples show decreasing numbers and proportions as well. Mixed opiate indicators suggest that historically high levels of oxycodone abuse may be stabilizing after years of growth. The numbers and proportions of treatment admissions and numbers of Helpline calls for opiates decreased for the first time in 5 years in FY 2005. The number of oxycodone drug lab samples, however, increased 31 percent from 2004 to 2005. Methamphetamine abuse numbers among available indicators remain very small. Accounting for less than 1 percent of all treatment admissions, the number of primary admissions for methamphetamine increased from 53 in FY 2004 to 75 in FY 2005. Methamphetamine drug lab samples increased from 17 in 2004 to 55 in 2005. Recent marijuana indicators are mixed. Treatment admissions for marijuana have steadily decreased in number and as a proportion of all admissions during the past 6 years. Marijuana drug arrests (Class D) and lab samples increased in 2005. Benzodiazepine misuse and abuse levels remain fairly stable at relatively high levels. In 2004, there were 258 adult HIV/AIDS cases diagnosed in Boston. Primary transmission risk factor of these cases included 9 percent who were IDUs, 4 percent*

*who had sex with IDUs, and 40 percent with an unknown/undetermined risk factor.*

## INTRODUCTION

### Area Description

According to the 2000 U.S. census, Massachusetts ranks 13th in population (6,349,097 people). The 746,914 people in the metropolitan Boston area represent 12 percent of the total Massachusetts population. The 2000 census data show that there were 589,141 residents of the city of Boston. The racial composition includes 50 percent White non-Hispanic, 23 percent Black non-Hispanic, 14 percent Hispanic/Latino, and 8 percent Asian.

Several characteristics influence drug trends in Boston and throughout Massachusetts:

- Contiguity with five neighboring States (Rhode Island, Connecticut, New York, Vermont, and New Hampshire) linked by a network of State and interstate highways
- Proximity to Interstate 95, which connects Boston to all major cities on the east coast, particularly New York
- A well-developed public transportation system that provides easy access to communities in eastern Massachusetts
- A large population of college students in both the greater Boston area and western Massachusetts
- Several seaport cities with major fishing industries and harbor areas
- Logan International Airport and several regional airports within a 1-hour drive of Boston
- State budget restraints on social service spending
- A high number of homeless individuals seeking shelter

### Data Sources

This report presents data from a number of different sources with varied Boston-area geographical parameters. For this reason, caution is advised when attempting to generalize across data sources. A description of the relevant boundary parameters is included with each data source description. For simplicity, these are all referred to as “Boston” throughout the text. In addition, there are many

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systemic factors specific to each data source that do not directly relate to the level of abuse in the larger population, but they may contribute to changes seen in the data. For example, field sources have indicated that past reductions in treatment funding caused reductions in available services and, ultimately, reductions in the number of admissions at a time when the number of potential clients exceeded the number of available treatment slots. As a result, decreasing admissions numbers were not an indication of a reduction in the number of people seeking treatment. How such systemic factors influence totals and subpopulation differences observed within a data source is often unknown. Further, to what degree an individual data source is representative of the larger drug-abusing population is largely unknown. Conclusions drawn from the data sources within this text are subject to these limitations. At best, these data present a partial picture of Boston's collective drug abuse experience. A clearer vision should occur as current data sources improve and new sources develop. One such source, the new Drug Abuse Warning Network (DAWN), is currently in the process of establishing new baselines for drug misuse deaths and emergency department reports. Eventually, DAWN should support trend analyses that will further inform efforts to better understand drug abuse patterns in Boston over time.

More data sources cited in this report are as follows:

- **State-funded substance abuse treatment admissions data** for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (Community Health Network Area [CHNA] 19) for fiscal year (FY) 1998 through the first three quarters of FY 2006 (July 1, 1997, through March 31, 2006) were provided by the Massachusetts Department of Public Health (DPH), Bureau of Substance Abuse Services. The demographic characteristics of all admissions to Greater Boston State-funded services are presented in exhibit 1.
- **Emergency department (ED) drug mentions data** were provided by DAWN *Live!*, Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for a Boston metropolitan area consisting of five Massachusetts counties: Essex, Middlesex, Norfolk, Plymouth, and Suffolk. In the Boston metropolitan area, 32 of the 47 eligible hospitals are in the new DAWN sample. The EDs in the new sample total 37. (Some hospitals have more than one ED.) For this report, data were accessed from the DAWN *Live!* restricted-access online query system for 2005, updated on May 1,

2006. These data are unweighted. The 2005 data are not estimates for the Boston area and cannot be used for comparison with future data. Only weighted data released by SAMHSA can be used in trend analysis. The data reported here are incomplete. Between 19 and 20 EDs reported each month during the time period (exhibit 2). Data are subject to change. Data presented in this paper represent drug reports in drug misuse visits to the ED. For prescription drugs, three case types were reported: Seeking Detox, Overmedication, and Other. Drug reports exceed the number of visits, since a patient may report use of multiple drugs (up to six drugs plus alcohol). Also presented are weighed estimates for reports on selected drugs in 2004. A full description of the DAWN system can be found at <<http://dawn.info.samhsa.gov>>.

- **Drug-related death data** for 2003 and preliminary 2004 death data were provided by DAWN, OAS, SAMHSA, for a Boston metropolitan area consisting of five Massachusetts counties, Essex, Middlesex, Norfolk, Plymouth, and Suffolk, and two New Hampshire counties, including Rockingham and Strafford. These data cover 100 percent of the population. Because the 2004 data are considered preliminary, these data may change.
- **Analysis of seized drug samples** for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19) for 1997 through 2005 were provided by the Massachusetts Department of Public Health Drug Analysis Laboratory in Amherst, Massachusetts. The Boston-area drug sample counts do not include samples analyzed at the Worcester County or State Police laboratories.
- **Information on drug mentions in Helpline calls** for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19) for FY 2000 through FY 2005 (July 1, 1999, through June 30, 2005) were provided by the Massachusetts Substance Abuse Information and Education Helpline.
- **Drug arrests data** for the city of Boston for 1997–2005 were provided by the Boston Police Department, Drug Control Unit and Office of Research and Evaluation. For arrest data only, Black and White racial designations include those who identify themselves as Hispanic.
- **Drug price, purity, and availability data** for New England were provided by the Drug



Enforcement Administration (DEA), New England Field Division Intelligence Group, June 2005.

- **Adult acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** for 2004, and cumulative data through May 1, 2006, were provided by the Massachusetts Department of Public Health AIDS Surveillance Program.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

Cocaine (including crack) is one of the most heavily abused drugs in Boston. Recent cocaine/crack indicators are mostly stable at high levels of use and abuse.

In the first three quarters of FY 2006, 1,182 treatment clients (9 percent of all admissions) reported cocaine/crack as their primary drug (exhibit 3), and there were 3,684 mentions (27 percent of all admissions) of current cocaine/crack use among those admitted to State-funded treatment programs (exhibit 3).

A comparison of the last full year of data (FY 2005) to previous years shows the proportion that reported cocaine/crack as their primary drug increased 11 percent from FY 2004 but decreased 43 percent from FY 1998 (exhibit 3). The 11-percent increase from FY 2004 was driven by a 19-percent increase in the proportion of crack admissions. The proportion of powder cocaine admissions did not change from FY 2004 to FY 2005. The proportion of mentions of current cocaine/crack use in FY 2005 was an 11-percent increase from FY 2004 but a 16-percent decrease from FY 1988. The 11-percent increase from FY 2004 was driven by a 28-percent increase in the proportion of admissions reporting current crack use. The proportion of current powder cocaine use did not change.

Exhibit 4a shows demographic characteristics of cocaine/crack treatment admissions in Boston. For further demographic comparisons of annual treatment admissions, see “Patterns and Trends in Drug Abuse: Greater Boston” in *Epidemiologic Trends in Drug Abuse Volume II*, January 2006.

In the unweighted data accessed from DAWN *Live!* for 2005, cocaine reports totaled 4,020, more than for any other drug except alcohol.

DAWN weighted data for 2004 produced an estimated 8,310 ED visits with cocaine mentions. Of

these, 62 percent were male and 38 percent were female. Twenty-one percent were younger than 25. Thirty-one percent were between the ages of 25 and 34, and 49 percent were age 35 and older.

In 2004, cocaine was indicated in 164 of the 445 drug misuse deaths in greater Boston (37 percent)—more than any other drug. About one fifth of those ( $n=35$ ) were single-drug deaths. The number of cocaine-related drug misuse deaths decreased 24 percent from 2003. The number of cocaine single-drug misuse deaths decreased 51 percent from 2003.

In FY 2005, cocaine or crack was indicated in 949 calls to the substance abuse Helpline, a decrease of 7 percent from 1,017 calls in FY 2004 (exhibit 5). Though the number of cocaine calls decreased, the proportion of Helpline calls with mentions of cocaine/crack increased slightly from 18 percent in FY 2004 to 19 percent in FY 2005.

In 2005, 2,875 seized samples of cocaine/crack were analyzed by the drug lab. The proportion of cocaine/crack samples among all drug samples analyzed (29 percent) has remained fairly stable since 2002.

There were 1,821 Class B (mainly cocaine and crack) drug arrests in 2005 (exhibit 6). Class B arrests accounted for the largest proportion of drug arrests (42 percent) in the city of Boston in 2005. The proportion of Class B arrests has remained fairly stable since 2000. However, the age distribution has shifted in the past year.

The proportion of Class B arrests of those younger than 20 increased 43 percent from 2004 to 2005. Arrests of those age 40 and older (24 percent) decreased 11 percent from 2004, but they increased 48 percent from 1997. Class B arrests for those age 25–39 (42 percent) decreased 23 percent from 1997. The racial distribution of Class B arrests for 2005 remained similar to 2004. However, the proportion of White Class B arrests (32 percent) decreased 19 percent from 1997 to 2005, while the proportion of Black Class B arrests (67 percent) increased 11 percent during the same period.

The DEA reports that cocaine costs \$50–\$90 per gram and that the purity is increasing in Boston (exhibit 7). A rock of crack costs \$10–\$20. Cocaine is considered “readily available at all levels” throughout Massachusetts.

### Heroin

Heroin remains one of the most heavily abused drugs in Boston. After years of continued growth,

indicators are beginning to show some downward movement but remain at very high levels.

In the first three quarters of FY 2006, 6,606 treatment clients (48 percent of all admissions) reported heroin as their primary drug (exhibit 3), and there were 6,297 mentions (46 percent of all admissions) of current heroin use among those admitted to State-funded treatment programs.

A comparison of the last full year of data (FY 2005) to previous years shows the proportion of admissions who reported heroin as their primary drug increased 3 percent from FY 2004 and 41 percent from FY 1998. Similarly, the proportion reporting current heroin use increased 3 percent from FY 2004 and 41 percent from FY 1998 (exhibit 3).

Exhibit 8 shows demographic characteristics of heroin or other opiates primary treatment admissions in Boston. For further demographic comparisons of annual treatment admissions, see “Patterns and Trends in Drug Abuse: Greater Boston” in *Epidemiologic Trends in Drug Abuse Volume II*, January 2006.

In the unweighted data accessed from DAWN *Live!* for 2005, heroin reports totaled 3,380.

DAWN *Live!* weighted data for 2004 produced an estimated 8,734 ED visits with heroin reports. Of these, 67 percent were male and 33 percent were female. Twenty-seven percent were younger than 25, 30 percent were between the ages of 25 and 34, and 43 percent were 35 and older.

In 2004, heroin was indicated in 142 of the 486 drug misuse deaths in greater Boston (32 percent). Forty-five percent of heroin deaths ( $n=64$ ) were single-drug deaths. The number of heroin-related drug misuse deaths increased 30 percent from 2003. The number of heroin single-drug misuse deaths increased 28 percent from 2003.

In FY 2005, heroin was mentioned in 1,562 calls (31 percent of the total) to the Helpline (exhibit 5). The proportion of heroin Helpline call mentions decreased notably (21 percent) from FY 2004 to FY 2005.

In 2005, 987 seized samples of heroin (10 percent of all drug samples) were analyzed. The proportion of heroin samples among all drug samples analyzed decreased 21 percent from 2004 to 2005.

There were 752 Class A (mainly heroin and other opiates) drug arrests in 2005 (exhibit 6). The proportion of Class A drug arrests among all drug

arrests in the city of Boston in 2005 is at a 9-year low (17 percent), a decrease of 23 percent from 1997. The proportion of Class A Black arrests in 2005 (34 percent) reflected a 13-percent decrease from 2004 and 16-percent decrease from 1997.

The DEA reports that in Boston, street heroin costs \$6–\$20 per bag (exhibit 7) or \$0.87 per milligram pure. Samples purchased by the Domestic Monitor Program found the average purity has decreased from 50 percent in 2002 to 28 percent in 2004. Analyzed samples were South American in origin and distributed in wax or colored glassine packets. Heroin is considered “readily available throughout New England” and is available in all forms: bag, bundle, gram, ounce, kilogram, and cylinder-shaped bullets/eggs.

### Narcotic Analgesics

After years of growing narcotic analgesic abuse, indicators are mixed at historically high levels.

In the first three quarters of FY 2006, 390 treatment clients (3 percent of all admissions) reported other opiates/synthetics as their primary drug (exhibit 3), and there were 817 mentions (6 percent of all admissions) of current other opiate/synthetics use among those admitted to State-funded treatment programs.

A comparison of the last full year of data shows the proportion who reported other opiates/synthetics as their primary drug decreased from 4 to 3 percent from FY 2004 to FY 2005. Similarly, the proportion reporting current other opiates/synthetics use decreased from 8 percent in FY 2004 to 6 percent in FY 2005 (exhibit 3).

Exhibit 8 shows demographic characteristics of heroin or other opiates primary treatment admissions in Boston. For further demographic comparisons of annual treatment admissions, see “Patterns and Trends in Drug Abuse: Greater Boston” in *Epidemiologic Trends in Drug Abuse Volume II*, January 2006.

Preliminary unweighted data from DAWN *Live!* show 2,751 reports of opiates/opioids in 2005. There were 1,414 oxycodone reports and 229 reports of hydrocodone.

DAWN weighted data for 2004 produced an estimated 7,001 ED visits with opiates/opioids reports. Of these, 4,075 were oxycodone reports. The oxycodone gender distribution was 61 percent male and 39 percent female. Thirty-two percent were

younger than 25, 23 percent were between the ages of 25 and 34, and 45 percent were 35 and older.

In preliminary 2004 death data, opiates/opioids (not including heroin or methadone) were reported present among 155 of the 445 drug misuse deaths in greater Boston (35 percent). Forty-two percent of opiates/opioids deaths ( $n=65$ ) were single-drug deaths. The number of opiates/opioids drug misuse deaths decreased 18 percent from 2003. The number of opiates/opioids single-drug misuse deaths increased 33 percent from 2003.

In FY 2005, there were 931 calls (19 percent of the total) to the Helpline during which opiates were mentioned (exhibit 5). Oxycodone (including OxyContin) was mentioned in 526 calls. The number of Helpline calls with oxycodone mentions decreased 24 percent from FY 2004. The number of calls with methadone mentions increased 32 percent (from 155 in FY 2004 to 204 in FY 2005). In FY 2005, there were 120 calls with Percocet mentions, 43 calls with Vicodin mentions, 11 calls with codeine mentions, 8 calls with morphine mentions, and 4 calls with Roxicet mentions.

In 2005, 322 seized samples of oxycodone were analyzed. Though the number increased 31 percent from 2004, the proportion of oxycodone samples among all drug samples analyzed remained stable at 3 percent.

The DEA reports that OxyContin is “available” on the street and typically costs about \$1 per milligram (exhibit 7).

### **Marijuana**

The most recent marijuana indicators for greater Boston are mixed at relatively high levels.

In the first three quarters of FY 2006, 465 treatment clients (3 percent of all admissions) reported marijuana as their primary drug (exhibit 3), and there were 1,175 mentions (9 percent of all admissions) of current marijuana use among those admitted to State-funded treatment programs.

A comparison of the last full year of data (FY 2005) to previous years shows the proportion that reported marijuana as their primary drug remained relatively stable from FY 1998. However, the proportion reporting current marijuana use decreased from 14 percent in FY 1998 to 9 percent in FY 2005 (exhibit 3).

Exhibit 9 shows demographic characteristics of marijuana primary treatment admissions in Boston. For further demographic comparisons of annual treatment admissions, see “Patterns and Trends in Drug Abuse: Greater Boston” in *Epidemiologic Trends in Drug Abuse Volume II*, January 2006

In the unweighted data from DAWN *Live!*, there were 2,169 marijuana reports during 2005.

DAWN weighted data for 2004 produced an estimated 4,890 ED visits with marijuana reports. Of these, 63 percent were male and 37 percent were female. Fifty percent were younger than 25, 23 percent were between the ages of 25 and 34, and 27 percent were 35 and older.

Marijuana was identified in 7 of 445 drug misuse deaths in 2005 and 18 of the 486 drug misuse deaths in 2003.

In FY 2005, marijuana was mentioned in 226 calls to the Helpline (exhibit 5). The proportion of Helpline calls with marijuana mentions remained stable at 5 percent from FY 2003 to FY 2005.

There were 3,974 seized samples of marijuana analyzed by the drug lab in 2005—more than any other drug. The proportion of marijuana samples analyzed in 2005 (41 percent of all drug samples) is the highest marijuana proportion in 9 years of reported data.

There were 1,599 Class D (mainly marijuana) drug arrests in 2005 (exhibit 6). The proportion of Class D arrests among all drug arrests (37 percent) in the city of Boston in 2005 reflected a 13-percent increase from 2004 and a 43-percent increase from 1997.

The proportion of Black (including Hispanics) Class D arrests (69 percent) in 2005 was similar to 2004 but was a 24-percent increase from 1997. The proportion of White (including Hispanics) Class D arrests (29 percent) decreased 32 percent from 1997.

The latest DEA report shows marijuana is readily available in Massachusetts and sells for \$800–\$1,500 per pound for “commercial grade” and \$1,000–\$1,200 per pound for “sinsemilla grade.” A marijuana cigarette or “joint” typically costs \$5 (exhibit 7). Commercial grade is said to be “readily available,” and high potency hydroponic marijuana termed “Hydro” is said to be “available” throughout New England.

## Benzodiazepines

As a group, benzodiazepines are showing high levels of abuse.

In the unweighted DAWN *Live!* data for 2005, there were 2,041 benzodiazepine reports of Seeking Detox, Overmedication, and Other case types. Clonazepam, alprazolam, lorazepam, and diazepam were the most often indicated benzodiazepines in preliminary ED data for 2005.

DAWN weighted data for 2004 produced an estimated 3,264 benzodiazepine ED reports of Overmedication, Malicious Poisoning, and Other case types. Of these, 50 percent were male and 50 percent were female. Twenty-two percent were younger than 25, 24 percent were between the ages of 25 and 34, and 54 percent were 35 and older.

Benzodiazepines were mentioned in 40 of 445 drug misuse deaths in 2004 (9 percent), down from 88 of 486 drug misuse deaths in 2003 (18 percent). In 2004, 3 benzodiazepine misuse deaths were single-drug deaths, down from 16 single-drug deaths in 2003.

There were 168 calls (3 percent of the total) to the Helpline during which benzodiazepines (Ativan, Valium, Xanax, Klonopin, Rohypnol, Halcion, and others) were mentioned in FY 2005 (exhibit 5). The number of Helpline calls with benzodiazepine mentions decreased 18 percent from a 6-year peak of 204 in FY 2002.

Arrest and drug lab data are currently unavailable for benzodiazepines.

## Methylenedioxymethamphetamine (MDMA)

MDMA (ecstasy) indicators show stable and relatively low levels of abuse.

The unweighted data from DAWN *Live!* for 2005 show 145 MDMA reports.

DAWN weighted data for 2004 produced an estimated 266 MDMA ED reports. Of these, 58 percent were male and 42 percent were female. Seventy-five percent were younger than 25, 23 percent were between the ages of 25 and 34, and 2 percent were 35 and older.

There were 17 calls to the Helpline during which MDMA was self-identified as a substance of abuse (representing less than 1 percent of all mentions) in FY 2005. The number of MDMA Helpline calls has

decreased 62 percent from a peak of 45 calls in FY 2002 (exhibit 5).

There were 54 MDMA drug lab submissions in 2005. This number is more than twice the number in 2004 ( $n=24$ ) but similar to 2003 (56).

The latest DEA report indicates that one MDMA tablet costs between \$20 and \$25 retail (exhibit 7). Distributed at clubs and on college campuses, MDMA has remained widely available “in spite of law enforcement seizures.”

## Other Drugs

### Amphetamines

Unweighted DAWN data for 2005 show 94 amphetamine reports.

DAWN weighted data for 2004 produced an estimated 343 amphetamine ED reports. Of these, 57 percent were male and 43 percent were female. Thirty-five percent were younger than 25, 23 percent were between the ages of 25 and 34, and 41 percent were 35 and older.

There were 13 amphetamine samples analyzed in 2005. The number of amphetamine lab samples was similar to 2004 ( $n=14$ ).

### Methamphetamine

There were 55 methamphetamine primary treatment admissions in the first three quarters of FY 2006. Though still relatively small in number, methamphetamine treatment admissions increased from 5 in FY 2001 to 53 in FY 2004 to 75 in FY 2005. Of the 75 in FY 2005, 96 percent were male, 80 percent were White, and 81 percent were age 30 and older.

In the unweighted 2005 DAWN *Live!* data, there were 85 methamphetamine ED reports.

DAWN weighted data for 2004 produced an estimated 93 methamphetamine ED reports. Of these, 80 percent were male and 20 percent were female.

Calls to the Helpline with methamphetamine mentions increased from 2 in FY 2000 to 10 in FY 2003 and to 16 in FY 2005 (exhibit 5).

There were 55 methamphetamine samples analyzed in 2005, an increase from 17 in 2004 but similar to the total in 2003 ( $n=42$ ).

The DEA reports that methamphetamine costs \$250 per gram and is available “in limited (user-level) quantities” in New England (exhibit 7). The purity level is unknown.

*Ketamine*

Only eight ketamine ED reports appear in the unweighted DAWN *Live!* data for 2005.

DAWN weighted data for 2004 produced an estimated 12 ketamine ED reports.

In FY 2005, there were five calls to the Helpline during which ketamine was mentioned.

Ketamine lab samples decreased in number from 43 in 2002 to 11 in 2003, 8 in 2004, and 4 in 2005.

The DEA reports that a vial of ketamine costs \$55 to \$100.

*Barbiturates*

In the unweighted DAWN *Live!* data for 2005, there were 81 barbiturates ED reports of Seeking Detox, Overmedication, and Other case types.

*Lysergic Acid Diethylamide (LSD), Phencyclidine (PCP), and Gamma Hydroxybutyrate (GHB)*

In the unweighted DAWN *Live!* data for 2005, there were 24 LSD reports, 17 PCP reports, and 22 GHB reports. The DEA reports that LSD costs \$5 per dose. GHB costs \$150 per ounce.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

In 2004, there were 258 adult HIV and AIDS cases diagnosed in Boston. The primary risk factor for these cases included 9 percent who were injection drug users (IDUs), 4 percent who had sex with IDUs,

and 40 percent with an unknown/undetermined transmission status. As of May 1, 2006, cumulative adult AIDS cases numbered 6,203. By primary risk factor, these included 26 percent who were IDUs, 7 percent who had sex with IDUs, and 14 percent for whom the risk behavior was unknown/undetermined.

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**Exhibit 1. Demographic Characteristics of Admissions to Greater Boston State-Funded Substance Abuse Treatment Programs,<sup>1</sup> by Percent: FY 1998–FY 2005<sup>2</sup>**

Characteristic	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Gender								
Male	75	74	76	77	77	74	73	76
Female	25	26	24	23	23	26	27	24
Race								
White	49	48	49	48	49	50	54	53
Black	32	33	32	30	29	28	26	27
Hispanic	15	16	16	18	18	18	17	16
Other	4	4	4	4	4	4	3	4
Age at Admission								
(Average age)	(35.6)	(36.5)	(36.7)	(36.5)	(36.5)	(36.7)	(36.9)	(37.0)
18 and younger	3	2	2	2	2	2	2	1
19–29	24	22	21	22	24	24	26	26
30–39	42	41	40	38	37	34	31	32
40–49	23	27	29	29	28	30	30	30
50 and older	8	9	9	9	10	10	11	11
Marital Status								
Married	10	10	10	10	10	10	9	9
Separated/divorced	22	21	19	18	18	18	17	16
Never married	68	69	71	72	72	72	74	75
Annual Income								
None	56	54	59	61	69	68	63	69
\$1–\$1,000	3	4	3	2	2	2	3	3
\$1,000–\$9,999	24	26	21	19	14	14	18	15
\$10,000 and higher	16	16	17	18	16	16	16	13
Homeless	31	31	30	34	37	37	36	42
Criminal Justice System Involvement	26	28	27	26	27	24	23	19
Mental Health								
No prior treatment	80	79	80	81	80	80	78	81
Prior treatment (counseling or hospitalization)	20	21	20	19	20	20	22	19
Needle Use in Past Year	25	26	26	27	32	37	38	38
Total (N)	(23,008)	(24,653)	(24,478)	(25,334)	(25,586)	(24,440)	(20,041)	(18,774)

<sup>1</sup>Excludes prisoners and out-of-State admissions.

<sup>2</sup>Fiscal years (FYs) run July 1–June 30, with the year named for the January–June portion of the year.

SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services; prepared by the Boston Public Health Commission, Research Office

**Exhibit 2. DAWN ED Sample and Reporting Information: January–December 2005**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
47	32	37	16-20	0–2	0–2	16–19

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department.

SOURCE: DAWN Live!, OAS, SAMHSA, updated 5-2-2006

**Exhibit 3. Percentages of Admissions to State-Funded Substance Abuse Treatment Programs by Primary Drug and Drug Used in the Past Month in Greater Boston<sup>1</sup>: FY 1998–3Q FY 2006<sup>2</sup>**

	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
<b>Primary Drug</b>									
Alcohol	45	45	45	44	40	36	35	35	35
Heroin and/or Other Opiates	35	36	37	42	46	50	52	52	51
Heroin	35	36	36	40	43	47	48	49	48
Other Opiates	0	1	1	2	3	3	4	3	3
Cocaine and/or Crack	14	13	13	9	9	8	7	8	9
Cocaine (powder)	7	7	7	4	4	3	3	3	3
Crack	7	6	6	5	5	5	4	5	5
Marijuana	4	5	5	4	4	4	4	3	3
Other <sup>3</sup>	1	1	1	1	1	1	1	2	2
<b>Total (N)</b>	<b>23,008</b>	<b>24,653</b>	<b>24,478</b>	<b>25,334</b>	<b>25,586</b>	<b>24,440</b>	<b>20,041</b>	<b>18,774</b>	<b>13,641</b>
<b>Drug Used Past Month</b>									
Alcohol	59	59	58	56	53	50	47	47	47
Heroin and/or Other Opiates	34	35	37	42	45	48	49	51	49
Heroin	33	34	35	39	42	45	46	47	46
Other Opiates	3	3	4	5	6	7	8	6	6
Cocaine and/or Crack	30	30	28	25	24	24	23	25	27
Cocaine (powder)	21	21	20	18	17	18	16	16	18
Crack	16	15	13	12	11	11	11	14	15
Marijuana	14	14	13	13	11	11	10	9	9
<b>Total (N)</b>	<b>23,008</b>	<b>24,653</b>	<b>24,478</b>	<b>25,334</b>	<b>25,586</b>	<b>24,440</b>	<b>20,041</b>	<b>18,774</b>	<b>18,774</b>

<sup>1</sup>Excluding prisoners and out-of-State admissions.

<sup>2</sup>Fiscal years (FYs) run July 1–June 30, with the year named for the January–June portion of the year. Data for FY 2006 are for the first through third quarters only.

<sup>3</sup>Includes barbiturates, other sedatives, tranquilizers, hallucinogens, amphetamines, “over-the-counter,” and other drugs.

SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services; prepared by the Boston Public Health Commission, Research Office

**Exhibit 4. Demographic Characteristics of Clients<sup>1</sup> in Greater Boston State-Funded Substance Abuse Treatment Programs with a Primary Problem with Cocaine/Crack, by Percent: FY 1998–FY 2005<sup>2</sup>**

Characteristic	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Gender								
Male	61	59	59	62	63	56	57	63
Female	39	41	41	38	37	44	43	37
Race								
White	24	23	23	26	25	27	27	25
Black	64	63	65	60	61	58	58	56
Latino	10	11	10	12	11	11	12	16
Other	3	3	3	3	3	4	3	3
Age at Admission (Average age)	(33.6)	(35.2)	(35.5)	(36.0)	(36.7)	(37.1)	(38.0)	(38.3)
18 and younger	1	1	<1	1	<1	1	1	<1
19–29	28	19	18	15	15	15	13	16
30–39	53	56	55	55	51	49	45	39
40–49	16	21	23	26	29	31	35	36
50 and older	2	4	4	4	5	5	7	9
Marital Status								
Married	10	11	10	11	12	12	10	12
Separated/divorced	19	19	16	17	19	19	21	18
Never married	71	71	74	72	69	70	69	70
Annual Income								
\$0–\$999	57	56	59	58	60	56	54	61
\$1,000–\$9,999	27	29	24	22	23	26	29	25
\$10,000 and higher	17	16	17	21	18	18	17	14
Homeless	26	23	21	23	28	24	24	32
Criminal Justice System Involvement	25	30	29	30	33	31	31	27
Mental Health Treatment History	22	27	28	29	31	36	36	35
Needle Use in Past Year	6	6	5	7	7	9	8	9
Total (N)	(3,266)	(3,165)	(2,837)	(2,291)	(2,230)	(1,985)	(1,470)	(1,532)

<sup>1</sup>Excludes prisoners and out-of-State admissions.

<sup>2</sup>Fiscal years (FYs) run July 1–June 30, with the year named for the January–June portion of the year.

SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services; prepared by the Boston Public Health Commission, Research Office



**Exhibit 5. Substance Abuse Helpline Drug Mentions in Greater Boston<sup>1</sup>: FY 2000–FY 2005<sup>2</sup>**

Drug <sup>3</sup>	FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Alcohol-only	2,034	(37)	2,206	(39)	1,965	(34)	1,627	(31)	1,597	(28)	1,730	(35)
Cocaine/Crack	1,118	(20)	1,1068	(19)	1,072	(18)	1,041	(20)	1,017	(18)	949	(19)
Heroin	1,832	(33)	1,862	(33)	2,038	(35)	1,895	(36)	2,230	(40)	1,562	(31)
Narcotic Analgesics	344	(6)	508	(9)	785	(14)	832	(16)	1,025	(18)	931	(19)
Marijuana/Hashish	309	(6)	291	(5)	339	(6)	261	(5)	253	(5)	226	(5)
Benzodiazepines	151	(3)	154	(3)	204	(4)	187	(4)	175	(3)	168	(3)
Methamphetamine	2	(<1)	7	(<1)	11	(<1)	10	(<1)	14	(<1)	16	(<1)
MDMA	43	(1)	40	(1)	45	(1)	32	(1)	24	(<1)	17	(<1)
Hallucinogens	17	(<1)	24	(<1)	8	(<1)	14	(<1)	8	(<1)	6	(<1)
Inhalants	100	(2)	55	(1)	40	(1)	15	(<1)	25	(<1)	12	(<1)
Total Number of Calls	5,478		5,695		5,814		5,221		5,627		4,977	

<sup>1</sup>Greater Boston includes Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19).

<sup>2</sup>Fiscal year runs from July through June of named year. For example, FY 2000 runs from July 1999 to June 2000.

<sup>3</sup>Narcotic Analgesics include codeine, methadone, morphine, oxycodone (incl. OxyContin), Percocet, Roxicet, Vicodin, and other opiates. Benzodiazepines include Ativan, Halcion, Klonopin, Librium, Rohypnol, Valium, Xanax. Hallucinogens include LSD, PCP, psilocybin, mescaline. Inhalants include acetone, aerosols, glue, markers, paint, other inhalants.

SOURCE: Massachusetts Substance Abuse Information and Education Helpline; data analysis by the Boston Public Health Commission Research Office

**Exhibit 6. Boston Police Department Arrests by Substance,<sup>1</sup> by Number and Percent: 1997–2005**

Drug Class	1997	1998	1999	2000	2001	2002	2003	2004	2005
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
A (Mostly Heroin)	1,392 (22.7)	1,061 (22.5)	984 (24.0)	1,022 (27.1)	905 (26.4)	947 (22.5)	939 (22.5)	791 (20.8)	752 (17.4)
B (Mostly Cocaine)	2,918 (47.5)	2,225 (47.1)	1,847 (45.1)	1,532 (40.6)	1,428 (41.7)	1,762 (41.9)	1,736 (41.6)	1,650 (43.3)	1,821 (42.2)
D (Mostly Marijuana)	1,617 (26.3)	1,211 (25.6)	1,133 (27.7)	1,093 (29.0)	982 (28.7)	1,375 (32.7)	1,366 (32.7)	1,247 (32.8)	1,599 (37.1)
Other	216 (3.5)	226 (4.8)	133 (3.3)	123 (3.3)	111 (3.2)	125 (3.0)	133 (3.2)	119 (3.1)	141 (3.3)
Total Drug Arrests	6,143	4,723	4,097	3,770	3,426	4,209	4,174	3,807	4,313
Total Arrests	27,843	25,481	23,592	22,216	20,470	21,025	20,686	19,577	23,035
Drug Percentage of Total Arrests	(23.7)	(18.5)	(17.4)	(17.0)	(16.7)	(20.0)	(20.2)	(19.4)	(18.7)

<sup>1</sup>Includes all arrests made by the Boston Police Department (i.e., arrests for possession, distribution, manufacturing, trafficking, possession of hypodermic needles, conspiracy to violate false substance acts, and forging prescriptions).

SOURCE: Boston Police Department, Office of Planning and Research; prepared by the Boston Public Health Commission, Research Office

**Exhibit 7. Drug Street Price, Purity, and Availability in Boston: November 2003–December 2004**

<b>Drug</b>	<b>Price</b>	<b>Purity</b>	<b>Availability</b>
Heroin	\$53–\$100 per gram \$60–\$100 per bundle \$6–\$20 per bag	High (bag-40%-60%)	Readily
Cocaine (powder)	\$50–\$90 per gram retail	Increasing	Steady, available
Crack	\$10–\$20 per rock		
Marijuana	\$5 per joint \$200–\$250 per ounce	Commercial Grade	Readily
Methamphetamine	\$250 per gram	Unknown	Limited quantities
MDMA (Ecstasy)	\$20–\$25 per tablet		High (clubs & colleges)
OxyContin	\$1 per milligram		
LSD	\$5 per dose		
Ketamine	\$55–\$100 per vial		
GHB	\$5 per capful, \$150 per ounce		

SOURCES: New England Field Division, Drug Enforcement Administration (DEA) as of June 2005  
Prepared by the Boston Public Health Commission, Research Office

**Exhibit 8. Demographic Characteristics of Clients<sup>1</sup> in Greater Boston State-Funded Substance Abuse Treatment Programs with a Primary Problem with Heroin or Other Opiates, by Percent: FY 1998–FY 2005<sup>2</sup>**

Characteristic	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Gender								
Male	72	72	75	76	77	74	72	74
Female	28	28	25	24	23	26	28	26
Race								
White	48	49	51	50	53	56	61	60
Black	24	24	22	21	19	18	15	16
Latino	22	22	23	25	25	22	21	20
Other	6	5	5	5	4	5	3	4
Age at Admission								
(Average age)	(34.6)	(35.2)	(35.3)	(35.1)	(34.6)	(35.2)	(35.1)	(34.6)
18 and younger	1	1	1	1	1	1	1	1
19–29	29	27	27	29	32	31	33	35
30–39	42	42	40	39	37	35	32	33
40–49	24	25	27	26	24	26	26	24
50 and older	4	6	5	6	6	7	8	7
Marital Status								
Married	11	10	11	10	10	9	7	7
Separated/divorced	21	20	19	17	15	16	16	13
Never married	68	70	71	73	75	75	77	80
Annual Income								
\$0–\$999	69	67	72	73	78	78	74	78
\$1,000–\$9,999	21	23	16	15	11	12	16	14
\$10,000 and higher	10	10	12	12	11	10	10	8
Homeless	25	26	22	29	35	40	39	42
Criminal Justice System Involvement	18	20	19	19	19	16	16	15
Mental Health Treatment History	17	18	16	16	16	16	18	16
Needle Use in Past Year	63	63	63	58	62	68	68	67
Total (N)	(8,145)	(8,932)	(9,151)	(10,613)	(11,850)	(12,210)	(10,402)	(9,793)

<sup>1</sup>Excludes prisoners and out-of-State admissions.

<sup>2</sup>Fiscal years (FYs) run July 1–June 30, with the year named for the January–June portion of the year.

SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services; prepared by the Boston Public Health Commission, Research Office

**Exhibit 9. Demographic Characteristics of Clients<sup>1</sup> in Greater Boston State-Funded Substance Abuse Treatment Programs with a Primary Problem with Marijuana, by Percent: FY 1998–FY 2005<sup>2</sup>**

Characteristic	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Gender								
Male	78	76	73	78	77	77	71	73
Female	22	24	27	22	23	23	29	27
Race								
White	32	28	28	29	27	26	29	21
Black	42	44	47	47	48	49	47	52
Latino	22	23	21	22	20	22	20	22
Other	4	4	4	3	5	4	3	5
Age at Admission (Average age)	(24.2)	(25.1)	(25.4)	(24.3)	(24.8)	(25.2)	(26.3)	(28.0)
18 and younger	29	24	19	27	24	22	17	12
19–29	48	50	56	51	50	52	52	52
30–39	18	17	18	16	19	18	21	24
40–49	5	6	5	6	6	7	7	10
50 and older	1	2	2	1	1	2	2	2
Marital Status								
Married	6	4	5	5	6	6	6	7
Separated/divorced	6	6	7	6	7	6	6	7
Never married	89	90	88	90	88	89	88	85
Annual Income								
\$0–\$999	50	59	55	57	60	64	53	51
\$1,000–\$9,999	31	27	27	22	21	21	28	28
\$10,000 and higher	19	14	18	21	19	16	19	21
Homeless	8	9	10	11	12	9	11	15
Criminal Justice System Involvement	47	53	48	48	50	43	44	44
Mental Health Treatment History	31	23	27	25	29	31	35	28
Needle Use in Past Year	2	2	2	2	2	2	2	2
Total (N)	(928)	(1,125)	(1,109)	(1,100)	(1,054)	(1,046)	(857)	(611)

<sup>1</sup>Excludes prisoners and out-of-State admissions.

<sup>2</sup>Fiscal years (FYs) run July 1–June 30, with the year named for the January–June portion of the year.

SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services; prepared by the Boston Public Health Commission, Research Office

# Patterns and Trends of Drug Abuse in Chicago

Dita Broz, M.P.H., Wayne Wiebel, Ph.D., and Lawrence Ouellet, Ph.D.<sup>1</sup>

## ABSTRACT

*Recent increases in deaths related to fentanyl-laced heroin highlight a growing opiate abuse problem in the Chicago area. Between December 2005 and May 2006, the Cook County Medical Examiner reported 98 deaths linked to fentanyl, and hundreds of nonfatal overdoses are suspected. The Chicago division of the ISP forensic laboratory reported a significant increase in the number of drug samples positive for fentanyl during the same period. Between January and May 2006, the ISP identified fentanyl in 171 drug samples, compared with 4 samples in 2005, 3 in 2004, and 1 in 2003. Heroin is the major opiate abused in this region, and many heroin use indicators have been increasing or have remained at elevated levels since the mid-1990s. Drug treatment services for heroin use, which surpassed those for cocaine in FY 2001, have since nearly doubled to 33,662 episodes in FY 2005. According to preliminary unweighted data from DAWN Live!, heroin was the second most commonly reported illicit substance in emergency departments in 2005. DMP data indicate heroin purity has been decreasing in Chicago. Availability of a high potency opiate, such as fentanyl, may be appealing to some heroin users. Epidemiological indicators continue to show that cocaine and marijuana are among the most commonly used illicit substances in Chicago. Cocaine was the second most frequently reported reason for entering publicly funded treatment programs in FY 2005, and this trend has been stable over the past 5 years. Reported marijuana-related treatment services continue to increase in Chicago, though less rapidly than in the rest of the State. According to preliminary unweighted data from DAWN Live!, cocaine and marijuana were among the top three illicit drugs most often reported in emergency departments in 2005. Cocaine and marijuana, followed by heroin, were the substances most frequently seized by law enforcement in Chicago; together the three accounted for 98 percent of all items seized. Most MDMA indicators were stable at low levels; however, ethnographic and survey reports suggest an increased trend in use among young African-*

*Americans. Methamphetamine indicators continued to show low but perhaps increasing levels of use in some areas of Chicago, especially on the North Side, where young gay men and clubgoers congregate. A recent study of men who have sex with men in Chicago (CHAT 2004) reported that methamphetamine use was strongly associated with high-risk behavior and HIV-positive status. Though use in Chicago is relatively low, these findings highlight the potential importance of methamphetamine use in the transmission of infectious diseases in the city.*

## INTRODUCTION

This report is produced biannually for the Community Epidemiology Work Group of the National Institute on Drug Abuse. As part of this epidemiological surveillance network, researchers from 21 U.S. areas monitor trends in drug abuse using the most recent data from multiple sources.

## Area Description

Due to its geographic location and multifaceted transportation infrastructure, Chicago is a major hub for the distribution of illegal drugs throughout the Midwest. Located in northeastern Illinois, Chicago stretches for 25 miles along the southern tip of Lake Michigan's shore. The 2000 U.S. census estimated the population of Chicago at 2.9 million and Cook County (which includes Chicago) at 5.4 million. In June 2003, the U.S. Office of Management and Budget (OMB) revised definitions for the Nation's Metropolitan Statistical Areas (MSAs). The Chicago-Naperville-Joliet, Illinois, MSA includes Cook, DeKalb, DuPage, Grundy, Kane, Kendall, McHenry, and Will Counties, and its population size was estimated at slightly more than 9 million (ranking third in the Nation).

According to the U.S. Census Bureau, the city population increased about 4 percent between 1990 and 2000. The number of Hispanics living in Chicago increased 38 percent between 1990 and 2000, while the number of Whites and African-Americans declined by 14 and 2 percent, respectively. Among U.S. cities, Chicago has the second largest Mexican-American and Puerto Rican populations.

Based on the 2000 census, the Chicago population is 36 percent African-American, 31 percent White, 26 percent Hispanic, and 4 percent Asian-American/Pacific Islander. In 2000, the median age of Chicagoans was 31.5, with 26 percent of the population younger than 18 and 10 percent age 65 or older. The

<sup>1</sup>The authors are affiliated with the University of Illinois at Chicago, School of Public Health, Chicago, Illinois.

unemployment rate is 6.2 percent, and the percentage of families living below the poverty level with children younger than 18 is 11.4 percent.

### Data Sources

This report is based on the most recent data available from the various sources detailed below:

- **Treatment data** for the State of Illinois and Chicago for fiscal years (FYs) 2000–2005 (July 1–June 30) were provided by the Illinois Division of Alcoholism and Substance Abuse (DASA).
- **Emergency department (ED) data** were derived for calendar year 2005 from the Drug Abuse Warning Network (DAWN) *Live!* restricted-access online query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Eligible hospitals in the Chicago area totaled 88; hospitals in the DAWN sample numbered 76, with 78 EDs in the sample. (Some hospitals have more than one ED.) During this 12-month period, between 24 and 30 EDs reported data each month. The completeness of data reported by participating EDs varied by month (exhibit 1). Exhibits in this paper reflect cases that were received by DAWN as of 4/18/2006. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. Drug reports exceed the number of visits, since a patient may report use of multiple drugs (up to six drugs plus alcohol). The DAWN *Live!* data are unweighted and, thus, are not estimates for the reporting area. These data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found on the DAWN Web site: <<http://dawn.info.samhsa.gov>>.
- **Drug-related mortality data** were derived from the DAWN, OAS, SAMHSA, mortality system for 1998–2003 and are described more fully in the June 2005 CEWG paper. These data, and 2003 data on deaths related to accidental drug poisonings from the Chicago Department of Public Health (CDPH) are briefly summarized in this paper. A preliminary count of fentanyl-related overdose deaths in Cook County for the period of April 2005 through May 2006 was provided by the Cook County Medical Examiner and is reported in this paper.
- **Incidence data on drug-related calls** were provided by the Illinois Poison Center (IPC) in Chicago for Cook County for 2001 through May 2006. The IPC answered 93,840 calls in 2005 on household products, herbal products, medication overdoses, adverse reactions to medications, alcohol or drug misuse, occupational accidents, chemical spills, and other poisonings.
- **Criminal justice data** were available from the Illinois Criminal Justice Information Authority (ICJIA), which collects, maintains, and updates a variety of criminal justice data to support its research and evaluation efforts. ICJIA regularly publishes criminal justice research, evaluation reports, and statistical profiles. ICJIA's drug arrest data for 1990–2004 and the 2004 special report on methamphetamine trends in Illinois were reviewed.
- **Price and purity data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), for heroin for 1991–2004. Purity data on drug samples analyzed through May 2006 were provided by the Illinois State Police (ISP), Division of Forensic Science. Drug price data are from the National Drug Intelligence Center, *National Illicit Drug Prices*, December 2005. Data from the National Forensic Laboratory Information System (NFLIS) for FY 2003 through FY 2005 were used to report on forensic analyses of drugs seized by law enforcement in Chicago. Ethnographic data on drug availability, prices, and purity are from observations and interviews conducted by the Community Outreach Intervention Projects (COIP), School of Public Health, University of Illinois at Chicago (UIC).
- **Survey data on student and household populations** were derived from several sources. Student (8th, 10th, and 12th grades) drug use data were provided by the 2004 Illinois Youth Survey, which is prepared by the Chestnut Health Systems for the Illinois Department of Human Services. The 2005 Youth Risk Behavioral Surveillance System (YRBSS), prepared by the Centers for Disease Control and Prevention (CDC), provided drug use data representative of 9th through 12th grade students in public and private schools. Data on substance use and abuse were provided by SAMHSA's National Survey on Drug Use and Health, 2002, 2003, and 2004.
- **Most recent drug use estimates** were derived from two currently ongoing studies of young

heroin users in metropolitan Chicago conducted by COIP at the UIC School of Public Health. The Family Process and Risk Reduction Study (Family Process), funded by the National Institute on Drug Abuse (NIDA), assesses a human immunodeficiency virus (HIV) prevention intervention that targets young injection drug users (IDUs) and their parents. Participants are age 18–25 and have injected in the last 6 months ( $n=822$  as of June 2005). All data from the Family Process Study are preliminary. Current non-injecting heroin users (NIHUs) age 16–30 were recruited for the NIDA-funded NIHU Study to evaluate the rate of transition to injecting and drug and sexual practices associated with HIV, hepatitis B (HBV), and hepatitis C (HCV) infections ( $n=649$  as of June 2005).

- Acquired immunodeficiency syndrome (AIDS) and HIV data** were derived from both agency sources and UIC studies. IDPH and CDPH surveillance reports provided statistics on AIDS and HIV through 2004. The CDPH summer 2005 “STD/HIV/AIDS Chicago” surveillance report included results from a survey of men who have sex with men (MSM) conducted as part of CDC’s National HIV Behavior Surveillance system (also known as Project CHAT) between December 2003 and November 2004. In a more recent “STD/HIV/AIDS Chicago” report (winter 2005–2006), CDPH published preliminary findings from a Project CHAT survey of current injection drug users interviewed between June and December 2005. The agency data are complemented by UIC’s studies of IDUs conducted by COIP at UIC’s School of Public Health. One is the NIDA-funded “AIDS Intervention Study,” based on a panel of IDUs participating from 1988 to 1996. The second is the CDC-funded HIV Incidence Study (CIDUS I and II). The CIDUS data are from analyses of a 1994–1996 study of 794 IDUs, age 18–50, in Chicago (Ouellet et al. 2000) and a 1997–1999 study of 700 IDUs, age 18–30, in Chicago and its suburbs (Thorpe et al. 2000; Bailey et al. 2001).

Several of the sources traditionally used for this report have not been updated by their authors or were unavailable at the time this report was generated. Because some information has not changed—and to avoid redundancy—this report occasionally refers readers to a previous Chicago CEWG report for more information in a particular area. For a discussion of the limitations of survey data, the reader is referred to the December 2000 Chicago CEWG report.

## DRUG ABUSE PATTERNS AND TRENDS

This report of drug abuse patterns and trends is organized by major pharmacologic categories. Readers are reminded, however, that multidrug consumption is the normative pattern among a broad range of substance abusers in Chicago. Various indicators suggest that drug combinations play a substantial role in drug use prevalence. Preliminary unweighted DAWN data show that 26 percent of all ED drug reports in Chicago in 2005 were alcohol-in-combination. During FY 2005, heroin was the most often mentioned reason for seeking treatment in Chicago. Among these treatment episodes, the most common secondary substances reported were cocaine (35 percent) and alcohol (10 percent).

### Cocaine/Crack

The majority of quantitative and qualitative cocaine indicators suggest that use remains stable at high levels and that cocaine continues to be a serious drug problem for Chicago.

The number of treatment services rendered for primary cocaine use in Chicago fluctuated slightly between FY 2000 and FY 2005 but generally remained stable at high levels (exhibit 2). Cocaine use was the second most common reason to enter treatment in FY 2005; a total of 16,845 persons were treated for cocaine-related problems, of which the majority reported crack cocaine use (91 percent) (exhibit 3). Cocaine was the most commonly mentioned secondary drug among persons treated for primary alcohol and heroin-related problems. In FY 2005, African-Americans remained the largest group treated (82 percent) for cocaine abuse, and males accounted for more services rendered (59 percent) than females.

Preliminary unweighted data accessed from DAWN *Live!* for 2005 show that more than one-third (36 percent) of total ED reports for major substances of abuse (including alcohol) were cocaine related. ED cocaine reports totaled 8,133 during this period (exhibit 4). The majority of the cocaine reports involved males (65 percent) and those between 35 and 54 years of age (67 percent). Sixty-two percent of the cocaine ED reports were for African-Americans. (Race was not documented for 12 percent of the cocaine ED reports.)

Drug-related mortality data from DAWN and CDPH were available for 2003. Both sources reported that cocaine was a factor in more deaths in the Chicago area than any other illicit drug, though multiple drug

use was involved in majority of these cases. Readers are referred to the June 2005 Chicago CEWG report for additional information regarding cocaine-related mortality.

According to the Illinois Poison Center, cocaine-related calls increased slightly between 2001 and 2004, from 116 to 135. In 2004 and 2005, cocaine continued to generate more calls than any other “street drug.”

State (ISP) and Federal (NFLIS) labs reported that cocaine was the drug most often received for testing after cannabis. (See exhibit 5 for NFLIS data.)

Cocaine prices have not changed since the June 2003 report. Ounce prices for powder cocaine were reported by street sources to be between \$400 and \$800, depending on the drug’s quality and the buyer’s relationship to the seller. Gram prices for powder and rock cocaine ranged from \$50 to \$150, with most reports around \$75. Ounces of crack cocaine (“rock”) sold for about the same price as ounces of powder cocaine, with reports ranging from \$900 to \$1,600. Bags of crack cocaine—the typical unit for street-level transactions—usually sell for \$5, \$10, or \$20. The NDIC reported the wholesale price of a kilogram of powder cocaine in Chicago was \$16,500–\$22,000.

Cocaine use among 9th through 12th grade students in Chicago decreased, though not significantly, between 1995 and 2005 according to CDC’s YRBS. Lifetime use was reported by 5.8 percent of students in 1995, compared with 4.2 percent in 2005 (exhibit 6). Cocaine use in the past 30 days also declined during this period, from 3.4 percent in 1995 to 1.9 percent in 2005. Prevalence of recent cocaine use in this group in 2005 was considerably higher at the national level (3.4 percent) than in Chicago. In 2005, recent cocaine use was more often reported by male students than females (2.9 percent and 1.1 percent, respectively), though the difference was not significant. There was no significant difference between Hispanics and African-Americans (2.1 percent and 1.9 percent, respectively). Similar demographic profiles were observed in the 2004 Illinois Youth Survey, which assessed past-year cocaine use among 8th through 12th grade students in Cook County (which includes Chicago). In this report, past-year cocaine use was 2.6 percent in 2004, a slight increase from the previous survey in 2002 (3.4 percent). For more information about the Illinois Youth Survey, readers are referred to the January 2006 Chicago CEWG report.

Cocaine use appears common among heroin users in Chicago. In an ongoing study of non-injecting heroin users (NIHU Study), 70 percent of participants re-

ported ever using powder cocaine, and 34 percent used it in the past 6 months. Crack cocaine use was reported by 67 percent of the study participants, and 52 percent reported using crack in the past 6 months. Among IDUs (Family Process Study), 84 percent reported ever using powder cocaine, and 72 percent of them used it in the past 12 months. Somewhat fewer participants had ever used crack cocaine (75 percent), but 88 percent of lifetime users reported using it in the past 12 months.

## Heroin

Heroin abuse indicators in this reporting period continue to suggest high and increasing levels of use in the Chicago area. The recent significant increase in deaths related to fentanyl-laced heroin highlights the city’s large heroin problem and the need for effective overdose prevention efforts.

The number of persons treated for heroin use in State-supported programs increased considerably between FY 2000 and FY 2005 in both Chicago and the rest of the State (125-percent and 135-percent increases, respectively). In FY 2005, heroin was the most common reason for seeking treatment in Chicago and accounted for 45 percent of all services rendered (exhibit 2). Of the 33,662 persons treated in FY 2005, the majority (82 percent) reported intranasal “snorting” as the primary route of administration, while only 15 percent injected (exhibit 3). Patients entering treatment programs outside of Chicago reported injecting as their primary route of administration more often than patients in Chicago (42 percent injected). Demographic differences between patients from Chicago and the rest of the State may account for some of this difference. Patients entering treatment in Chicago were more likely to be African-American (82 percent), while patients from the rest of Illinois were more likely to be White (57 percent).

Preliminary unweighted DAWN *Live!* ED data for 2005 indicate that heroin is the third most frequently reported major substance of abuse, following only cocaine and alcohol (exhibit 4). The majority of the 4,955 heroin ED reports involved males (61 percent), those between ages 35 and 54 (63 percent), and African-Americans (61 percent). (Race was not documented for 10 percent of the heroin reports.)

Neither the DAWN ME system for the Chicago MSA nor the CDPH have provided updated drug-related mortality data since 2003. In that year, the DAWN ME recorded 27 heroin-related deaths, of which 5 were single-drug deaths. According to CDPH, three deaths in the city were attributed to heroin use in 2003.



In light of the ongoing outbreak of fentanyl-related deaths in Chicago, the Cook County ME provided preliminary mortality data through the end of May 2006. Since December 2005, a larger- than-expected increase in the number of deaths related to fentanyl has been reported, with the largest number (36 deaths) in May (exhibit 7). Many of these cases are thought to be the result of fentanyl mixed with or sold as heroin and used in combination with other substances, such as cocaine. This outbreak is further described below in the section, “Other Opiates/Narcotics.”

Based on the 2004 DMP report, heroin from several geographic source areas, including South America, Southeast Asia, Southwest Asia, and Mexico, was consistently available. This makes Chicago unique among other U.S. cities. The purity of street-level heroin continued to decline between 2000 and 2004 (exhibit 8) after it peaked in 1997 at about 31 percent. In 2004, South American heroin exhibits purchased by the DMP in Chicago averaged 13.8 percent pure, a 42-percent decrease from 2000 and a 17-percent decrease from 2003. The average price per milligram pure increased slightly in 2004 to \$0.56.

The amount of heroin analyzed in Cook County by the ISP laboratory increased from 12 kilograms in 2002 to 21 kilograms 2003 and remained at this level in both 2004 and 2005. According to NFLIS, heroin accounted for nearly 17 percent of the drugs analyzed by forensic labs in Chicago in FY 2005 (exhibit 5).

Participants in a study of young non-injecting heroin users reported high availability of heroin on the streets of Chicago. Sixty-three percent reported “a lot” (the highest rating) of heroin on the street in the past 30 days. Use of brand-name heroin was reported by 29 percent of participants. Most (80 percent) paid \$10 per bag in the 30 days prior to interview. Regarding heroin quality in the past 30 days, only 10 percent gave the highest quality rating (“very good”); 31 percent thought the quality was “good;” and 50 percent perceived the heroin quality as “fair.”

According to CDC’s YRBS, lifetime heroin use among 9th through 12th grade students in Chicago decreased slightly but not significantly between 1999 and 2005. Use was reported by 3.1 percent of students in 1999, compared with 2.0 percent in 2005 (exhibit 6). In 2005, lifetime heroin use was reported significantly more often by males than females (4.3 percent and less than 0.01 percent, respectively). While the difference was not statistically significant, African-Americans were more likely than Hispanics to report recent heroin use (2.5 percent and 1.5 percent, respectively). Prevalence data were not available for White students because of low numbers in 2005.

Preliminary analysis of data collected for the currently ongoing study of young non-injecting heroin users in Chicago (NIHU), conducted by COIP at UIC, found that at followup, after controlling for recent homelessness and self-perception of injection initiation risk, White study participants were significantly more likely to initiate injection. African-Americans in the study appeared resistant to injection initiation despite a longer duration of use.

Heroin prices have not changed since the June 2003 report. On the street, heroin is commonly sold in \$10 and \$20 units (bags), though bags for as little as \$5 are available. “China White” heroin is the most common, but brown and tar heroin are available. Prices for larger quantities varied greatly, depending on the type and quality of heroin, the buyer, and the area of the city where the heroin was sold. At outdoor drug markets, purchases of multibag quantities—versus grams and fractions of ounces—were the most common means of buying larger amounts of heroin. Recent ethnographic and police reports suggest that dealers in several locations on the south and west sides of the city offered free samples of heroin laced with fentanyl, a powerful opiate analgesic. Distribution of free drug samples has been reported in the past in an attempt to introduce a “new product,” a practice that indicates a potential increase in competition. According to the NDIC, in 2005, the wholesale price for heroin in Chicago was \$60,000–\$100,000 per kilogram.

### Other Opiates/Narcotics

Most indicators for the abuse of other opiates were not updated at the time of this report. Readers are therefore referred to the January 2006 Chicago CEWG report for the most recent information regarding the use of other opiates in Chicago. In light of the currently ongoing outbreak of overdose deaths related to fentanyl, this section is devoted to the subject.

Fentanyl is an opioid analgesic, typically used to manage chronic pain. The physiological effects of fentanyl are indistinguishable from those of heroin, with the exception that fentanyl is far more potent. Fentanyl is available by prescription in sustained-release patches (Duragesic), in a solid stick that dissolves slowly in the mouth for transmucosal absorption (Actiq), and as an intravenous analgesic and anesthetic used in health care settings. Fentanyl can be produced in clandestine laboratories, however, and mixed with or substituted for heroin without knowledge of the user. Overdoses result in respiratory and central nervous system depression.

Illicit use of fentanyl first appeared in the mid-1970s in the medical community, and a few clusters of

overdose deaths among injection drug users were reported in the 1980s, mostly in California.

The Cook County ME reported the first increase in fentanyl-related deaths in the county (which includes Chicago) in December 2005, and the monthly death count has increased since (data available through the end of May 2006 at the time of this report). The first cluster of deaths in December 2005 is thought to have followed a rash of free fentanyl-laced heroin samples given out in one location on the south side of Chicago. Police reports and ethnographic data suggest that availability spread quickly throughout the city's existing heroin markets.

Of the 102 confirmed fentanyl-related deaths in Cook County, 98 occurred between December 2005 and May 2006. In 40 of these cases, fentanyl was the only substance detected. Other opiates, including heroin, were detected in 29 cases, cocaine in 34, and alcohol in 17. Seventy-two deaths occurred in the city of Chicago, and 30 were in the suburban communities of Cook County. Sixty-six decedents were residents of the city, 31 were residents of the MSA, and 5 were from out-of-State. Decedents were more likely to be male than female (85 and 17 decedents, respectively) and African-American than White (85 and 42 decedents, respectively).

Authors of this report and the COIP research and outreach staff conducted a series of informal ethnographic interviews with current heroin users to assess the street-level knowledge of fentanyl and fentanyl-laced heroin availability and demand. These reports indicate mixed responses by heroin users to the overdoses. Some users report that they avoid locations associated with overdoses, while others seek out the "hot bags" in the belief that they can safely use the drug. There does not seem to be broad interest in obtaining fentanyl itself; rather, users seek bags of heroin thought to be of high potency. Reports describe long lines of users waiting to buy heroin in some spots where overdoses occurred. Brand names associated with fentanyl and fentanyl-laced heroin include "lethal injection," "drop dead," "incredible hulk," "fat Albert," and "the terminator." Some fentanyl-laced heroin also was associated with specific markings on "dime bags," such as multiple spades. Users report both snorting or injecting fentanyl and fentanyl combinations. Some have access to patches and have tried to inject the material from them, typically without success. One report suggested that dealers are promising even more powerful fentanyl "used for large animals," which might be a reference to Carfentanil. No other reports indicated availability or use of this more powerful fentanyl.

Though many of the heroin users interviewed reported seeking "hot bags" of heroin, most indicated that they would take some precautions. Users often believed they may be able to identify what kind of heroin batch they have, based on where they buy it and/or whether it looks and tastes different. Most intranasal users say they can taste a difference, but the widely varying reports on visual indicators (e.g., reports of mint green color when the mixture is heated) suggest the absence of reliable visual cues. Other precautions reported were to use less than normal (e.g., half of bag instead of a whole one), ingest or inject the drug more slowly, and use with others.

The current Chicago response to the fentanyl problem includes a multi-agency collaboration with the Chicago Police Department in the lead. Staff from the local DEA, city and State health departments, poison control center, drug treatment programs, needle exchange programs, and others are in communication with one another and attempting to share expertise and data. The Chicago Recovery Alliance staff has shared their experience in providing naloxone and overdose prevention information to participants in their needle exchange program. Chicago response members have also participated in discussions with agencies in other States experiencing this problem and with Federal officials.

The Office of National Drug Control Policy announced that a clandestine lab in Mexico that produced large quantities of fentanyl was located and shut down on May 21, 2006. On June 21, 2006, the DEA and Chicago police arrested 29 alleged members of a street gang suspected of trafficking fentanyl-laced heroin and seized more than 100 kilograms of heroin, which is currently being tested for the presence of fentanyl. These developments may impact the future supply and distribution of fentanyl in the Chicago area.

### **Methamphetamine/Amphetamines**

Since the mid-1990s, many indicators of methamphetamine ("speed") use in Illinois increased steadily. Overall, use of methamphetamine remains low in Chicago, though some indicators have increased slightly, reflecting higher use of methamphetamine in some parts of the city.

Since FY 2002, treatment services rendered in Chicago for methamphetamine use have been steadily increasing, from 29 episodes to 78 in FY 2005 (exhibit 2). Most patients in FY 2005 were male (77 percent) and White (68 percent) (exhibit 3). Smoking was the most commonly reported primary route of administration (47

percent), followed by inhalation (33 percent). A more pronounced increase in methamphetamine treatment episodes was reported in the rest of the State; treatment episodes increased from 698 in FY 2000 to 5,134 in FY 2005. Readers are referred to the January 2006 Chicago CEWG report for additional information regarding methamphetamine treatment data.

Treatment services rendered for amphetamine outnumber those for methamphetamine in Chicago, though the opposite is true in the rest of the State. In FY 2005, 96 amphetamine episodes were reported in Chicago, which is a 50-percent increase from the previous year. Amphetamine treatment episodes in the rest of the State numbered 493 in FY 2005. Demographic and drug use characteristics of amphetamine patients were similar to those for patients treated for methamphetamine use.

In 2005, unweighted DAWN *Live!* data showed 77 ED methamphetamine reports for Chicago (exhibit 4). ED patient characteristics were similar to patients receiving treatment services in publicly funded programs. Males (81 percent), persons age 25–44 (66 percent), and Whites (at least 49 percent) accounted for the majority of ED methamphetamine reports. (Race was not documented for 19 percent of these reports.) In 2005, 63 preliminary amphetamine ED reports were registered by DAWN *Live!*.

Methamphetamine calls to the Illinois Poison Center in Chicago are infrequent. From 2004 to 2005, the Poison Center received a total of 18 such calls. However, there were 94 amphetamine-related calls in 2004 and 62 in 2005.

Data from the ISP indicated that more methamphetamine continued to be seized than cocaine or heroin in nearly 50 percent of Illinois counties in 2005. However, the amount of methamphetamine received by ISP from Cook County in 2005 increased considerably from the previous year, from approximately 8 kilograms to 19. According to the NFLIS report, 0.36 percent of the items analyzed in Chicago in FY 2004 were methamphetamine, compared with 0.59 percent in FY 2005—a considerable increase from the 0.21 percent reported FY 2003 (exhibit 5).

The most recent ICJIA analysis of criminal justice data related to methamphetamine use in Illinois supports the pattern of considerably lower use in Chicago compared with the rest of the State. The number of methamphetamine-related arrests, drug seizures, and clandestine lab closures increased dramatically in Illinois, with the largest increases in rural counties. Readers are referred to the June 2005 Chicago CEWG report for more

detailed discussion of the ICJIA data on methamphetamine trends in Illinois.

According to the YRBS, lifetime use of methamphetamines decreased among 9th through 12th grade students in Chicago between 1999 and 2005 (exhibit 6). Lifetime use was reported by 4.2 percent of students in 1999, compared with 1.5 percent in 2005. In 2005, use was significantly more common among males than females (2.9 and 0.3 percent, respectively). Hispanic students experienced the largest decrease in use, from 6.2 percent in 1999 to 0.4 percent in 2005. According to the 2004 Illinois Youth Survey, past-year use was reported by 1.1 percent of 8th through 12th grade students in Cook County. African-American and White youth reported similar frequency of methamphetamine use (1.3 percent and 1.2 percent, respectively), while Hispanics reported past-year use considerably less often (0.04 percent). Methamphetamine use among 8th through 12th grade students was significantly more common in rural counties in Illinois (2.1 percent).

The CDPH Office of HIV/AIDS Surveillance interviewed 1,147 MSM who were age 18 or older in 2004. Eleven percent of surveyed men reported using methamphetamine at least once in the past 12 months. Of those who used in the past year, nearly one in five reported using at least once per week.

Within Chicago, a low but stable prevalence of methamphetamine use has been reported for a number of years in the North Side gay community. Ethnographic data suggest that methamphetamine availability increased substantially since June 2001 in some of these networks, who may use the drug to enhance sexual experiences.

In the NIHU Study, 19 percent of participants reported ever trying amphetamine or methamphetamine, and only 5 percent reported using it in the 6 months prior to the interview. Among injectors in the Family Process study, 19 percent of participants reported amphetamine use, and 8 percent used it in the previous 12 months. It is likely that participants' use of the drug often took place somewhere other than Chicago or Illinois.

Methamphetamine prices have not changed since June 2003, when it was reported that bags of methamphetamine sold for \$20. Most drug users reported that the drug remained difficult to obtain. One street-level report suggested a limited availability of methamphetamine on the West Side. There was also one report of methamphetamine being sold at a South Side street drug market. According to the NDIC 2005 report, methamphetamine powder cost \$1,000 per ounce and \$80–\$100 per gram.

## Marijuana

Marijuana continues to be the most widely available and used illicit drug in Chicago and Illinois.

Marijuana users represented 12 percent of all treatment episodes in Chicago in FY 2005 and 23 percent of episodes in the rest of the State. Marijuana-related episodes increased both as an absolute number and as a percentage of total episodes in the city (exhibit 2) and the rest of the State between FY 2000 and FY 2005, though the increase was approximately 15 percent larger in the rest of the State. Alcohol remained the most commonly reported secondary drug among persons receiving treatment for marijuana (exhibit 3). In Chicago, treatment episodes for marijuana were more commonly male (77 percent) and African-American (76 percent).

Preliminary unweighted data accessed from DAWN *Live!* show that ED reports of marijuana in 2005 represented 13 percent of all the major substance of abuse reports, including alcohol. Of the 2,905 marijuana ED reports reported during this period (exhibit 4), one-half involved African-American patients, followed by Whites (25 percent). (Race was not documented for 13 percent of the reports.) The majority of these patients were male (68 percent) and younger than 35 (63 percent).

According to the DEA, the bulk of marijuana shipments are transported by Mexico-based polydrug trafficking organizations that conceal marijuana among legitimate goods in tractor-trailers coming into the Chicago area from the southwest border. The primary wholesalers of marijuana are the same Mexico-based organizations that supply most of the cocaine, methamphetamine, and Mexican heroin in the Midwest. Marijuana produced locally (indoor and outdoor) by independent dealers is also available.

In general, currently available marijuana is of variable quality. The abundance and popularity of marijuana across the city has led to an increased array of varieties and prices. Marijuana prices may have increased since 2003, according to recent ethnographic reports. The prices ranged from \$800 to \$5,000 per pound, depending on the type and quality. Ounces typically sold for about \$110–\$800. On the street, marijuana was most often sold in bags for \$5–\$20 or as blunts. The NDIC reported the following prices for marijuana in Chicago in 2005: \$390–\$900 per pound commercial grade, \$180–\$220 per ounce, and \$5–\$7 per gram.

Both ISP and NFLIS laboratories analyzed more marijuana samples than samples for any other drug. Forty-

nine percent of drug samples analyzed by the NFLIS for Chicago in FY 2005 were identified as cannabis (exhibit 5).

Following a steady increase, both lifetime and recent marijuana use among 9th through 12th grade students in Chicago decreased, though not significantly, between 2001 and 2005. According to the CDC's YRBS, 49.3 percent of students in 2001 reported using marijuana one or more times during their life, compared with 44.9 percent in 2005; a 9-percent decrease (exhibit 6). Past-30-day use decreased by a larger proportion (22-percent) during the same period, from 28.7 percent in 2001 to 22.5 percent in 2005. Neither of these percent changes is statistically significant. Race/ethnicity data were incomplete for the 2005 YRBS; the 2003 survey suggested that recent marijuana use decreased among all racial/ethnic groups, though the decrease was largest among White students and was statistically significant. While differences were not significant, males were more likely to report recent marijuana use than females in 2005 (25.8 and 19.6 percent, respectively). A decreasing trend in marijuana use and a similar demographic profile were reported in the 2004 Illinois Youth Survey. For more information about the Illinois Youth Survey, readers are referred to the January 2006 Chicago CEWG report.

Marijuana use was common among the young heroin users participating in local studies. Sixty-seven percent of non-injecting heroin users and 88 percent of young injectors smoked marijuana in the 6–12 months prior to their interview.

## Club Drugs

The number of treatment services rendered for “club drugs” in Chicago increased between FY 2004 and FY 2005 from 30 to 76 episodes. During FY 2005, 92 percent of “club drug” treatment episodes were among males, and 74 percent were among African-Americans.

In the Chicago area, methylenedioxymethamphetamine (MDMA or “ecstasy”) continues to be the most prominently identified of the club drugs, and its use appears to have increased among African-Americans.

The preliminary unweighted data extracted from DAWN *Live!* show 101 MDMA reports in 2005 (exhibit 4). MDMA ED reports were more common among male patients (58 percent), African-Americans (39 percent), and those younger than 30 (92 percent).

Between 2003 and 2005, MDMA use decreased, though not significantly, among 9th through 12th

grade students in Chicago, according to CDC's YRBS (exhibit 6). Lifetime use was reported by 5.3 percent of students in 2003, compared with 3.3 percent in 2005. Male students reported MDMA use more often than females in 2005 (4.6 and 2.1 percent, respectively), though this difference was not statistically significant. According to the Illinois Youth Survey, past-year MDMA use increased among 8th through 12th grade students in Cook County between 2002 and 2004.

MDMA samples sent to the ISP laboratory from Cook County increased from 0.8 kilograms in 2003 to 3.1 kilograms in 2004 and remained at about the same level (2.9 kilograms) in 2005. Similarly, the NFLIS reported an increase in the proportion of all items analyzed for Chicago that were MDMA, from 0.16 percent in FY 2003 to 0.29 percent in FY 2004; this proportion continued to increase in FY 2005 to 0.41 percent (exhibit 5).

Drugs sold as ecstasy remained available in most mainstream dance clubs and at many house parties. "Raves" featuring ecstasy use are said to be close to nonexistent. Recent ethnographic reports suggest that ecstasy may be purchased in some "open air" street markets on the West Side and South Side of Chicago. It continued to be sold in pill or capsule form, and the price range may have recently decreased from \$20–\$40 per pill to \$10–\$20 per pill. According to the 2005 NDIC report, MDMA prices slightly decreased. In 2003, wholesale prices ranged between \$10 and \$12 per tablet, compared with the \$4.50–\$6.00 reported in 2005; the retail price was \$25–\$35 per dosage unit in 2003, while it was \$15–\$20 in 2005. There have been increasing reports of ecstasy use from participants in local studies of drug users that suggest increased use of ecstasy by African-Americans in their teens and twenties. This use of ecstasy occurs not only in the context of club going, but also among street populations, including sex workers. Some of these observers claim that ecstasy can be obtained in "upper" and "downer" forms, which suggests a combination of drugs. In fact, the Cook County Sheriff's Police Department Forensic Laboratory reported in February 2006 that pills resembling MDMA in color and logo were upon analysis identified to be a mixture of methamphetamine and phencyclidine (PCP).

Gamma hydroxybutyrate (GHB), a central nervous system depressant with hallucinogenic effects, is used infrequently in Chicago, mainly by young White males.

No treatment services were provided for GHB use in FY 2005, and, according to preliminary unweighted

data accessed from DAWN *Live!*, there were only 27 GHB ED reports in 2005 (exhibit 4).

GHB is sold as a liquid (also referred to as "Liquid G") in amounts ranging from drops (from a dropper at raves or parties) to capfuls. Prices for a capful have been reported at \$5–\$25. Compared with other club drugs, overdoses are more frequent with GHB, especially when used in combination with alcohol. GHB is not tracked in most quantitative indicators, but its use is perceived to be low compared with ecstasy.

Ketamine, an animal tranquilizer, is another depressant with hallucinogenic properties and is often referred to as "Special K." DASA reported only six patients served for ketamine use in FY 2005 in publicly funded treatment programs in Illinois, and only one of those was in Chicago. As reported in the June 2004 Chicago CEWG report, street reports indicate that ketamine is usually sold in \$5–\$30 bags of powder or in liquid form. The drug is somewhat available at rave parties or in clubs frequented by younger adolescents.

### **PCP, LSD, and Other Hallucinogens**

Treatment services rendered for hallucinogen use in Chicago increased from 30 in FY 2002 to 284 in FY 2003 and remained relatively stable between FY 2004 and FY 2005. Much of the increase since FY 2002 occurred among African-Americans and female patients, while hallucinogen-related treatment episodes decreased among Hispanics. During FY 2005, 66 percent of treatment episodes were reported among African-Americans and 42 percent were among female patients, compared with 47 and 13 percent, respectively, in FY 2002.

In general, both PCP and lysergic acid diethylamide (LSD) use in Chicago remain low, though in comparison, use of PCP appears to be more common. According to unweighted data accessed from DAWN *Live!*, there were 85 PCP and 17 LSD ED reports in 2005 (exhibit 4). No deaths related to hallucinogens were reported to the DAWN ME system in 2003.

The amount of PCP samples received by the ISP laboratory for analysis decreased significantly between 2002 and 2005, from 4.2 kilograms to 0.22 kilograms. The FY 2005 NFLIS report partly mirrored this decrease. The proportion of PCP samples analyzed decreased from 0.50 percent in FY 2004 to 0.29 percent in FY 2005 (exhibit 5). LSD samples accounted for consistently less than 0.1 percent of total drug items analyzed in Chicago during this period.

According to the Illinois Youth Survey, hallucinogen (including LSD and PCP) use decreased markedly among 8th through 12th grade students in Cook County in 2004. Past-year use was reported by 4 percent of students in 2000, but less than 2 percent reported such use in 2004. Hallucinogen use was reported more often by males (3.0 percent) than females (0.9 percent) and by White students (2.8 percent) than African-Americans (0.6 percent).

Ethnographic reports on PCP use are available in the June 2003 Chicago CEWG report. On the West Side, 2–3 PCP “sticks” about the size of toothpicks were reportedly available for \$5–\$10, according to the June 2003 CEWG report. Some “wicky sticks” are said to also include embalming fluid, and these cost more. Sherm sticks typically are cigarettes or small cigars dipped in PCP, drained, and dried. The cigarettes—most often Mores—are sold for about \$20–\$30 each and are mainly available on the far South Side. PCP was also said to be sold in sugar cubes for \$20 each. Liquid PCP (“water”) was said to sell for \$120 for a vial.

LSD hits typically cost \$5–\$10. LSD is available in the city and suburbs.

In the study of young non-injecting heroin users, 36 percent of participants reported ever trying LSD, mescaline, mushrooms, or other hallucinogens, but only a few (6 percent) reported use in the 6 months prior to their interview. Among young injectors, 73 percent of participants reported ever trying hallucinogens, and 32 percent reported use in the 12 months prior to their interview. Whites were much more likely than African-Americans to report recent use of hallucinogens.

Recent reports from young heroin snorters indicate that in this population, PCP use is more common than LSD use. Fifty-one percent of study participants reported ever trying PCP, and 15 percent used in the 6 months prior to their interview.

According to some accounts by White youth, hallucinogenic mushrooms remain available. Reported prices were \$20–\$40 per mushroom.

### **Benzodiazepines/Barbiturates**

In Chicago, depressants, such as benzodiazepines and barbiturates, are commonly taken with narcotics to potentiate the effect of opiates, frequently heroin. Depressants may also be taken with stimulants to moderate the undesirable side effects of chronic stimulant abuse. Chronic cocaine and speed abusers often take depressants along with stimulants, or when

concluding “runs,” to help induce sleep and to reduce the craving for more stimulants (especially in the case of cocaine).

Treatment data suggest depressants are not the primary drugs of choice for most users. In FY 2005, DASA reported 39 treatment episodes for tranquilizers and 22 episodes for sedatives/hypnotics. After alcohol, cocaine was the most common secondary drug among these patients.

The most recent drug-related mortality data from DAWN ME are available for 2003. In that year, 17 benzodiazepine misuse-related deaths were reported in the Chicago MSA. Fourteen of these deaths were ruled as suicide.

Preliminary unweighted data accessed from DAWN *Live!* showed that 1,155 ED reports were related to the misuse of benzodiazepines in 2005. Nearly one-third of these mentions were classified as overmedication.

Benzodiazepine-related calls to the Illinois Poison Center in Chicago repeatedly represented nearly one-half of all substance misuse calls between 2001 and 2005. Approximately 500 to 600 calls annually were reported during this time period. Calls for barbiturate use remained low during this period, at approximately 40 calls annually.

Lifetime use of tranquilizers or barbiturates without a prescription (diazepam [Valium], amitriptyline [Elavil], lorazepam [Ativan], and alprazolam [Xanax]) was reported by 31 percent of young non-injecting heroin users in the NIHU Study. Thirteen percent reported use in the past 30 days. In the Family Process Study, 42 percent of young injectors reported ever using barbiturates, and 30 percent used them during the previous 12 months.

No updated prices for depressants were available. As stated in past Chicago CEWG reports, alprazolam typically sells for \$2–\$3 for 0.5-milligram tablets and \$5–\$10 for 1-milligram tablets.

### **INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

While Chicago accounts for 23 percent of Illinois’ population, nearly 70 percent of statewide AIDS cases are from Chicago. Of the 32,982 AIDS cases reported to IDPH through April 30, 2006, 22,544 resided in the city of Chicago at the time of diagnosis. Cook County, which includes Chicago, and the collar counties (DuPage, Kane, Lake, McHenry, and Will) accounted for 87 percent of cumulative AIDS cases diagnosed in Illinois. CDPH estimated that by

the end of April 2006, a total of 19,740 Chicagoans were living with HIV and AIDS.

In 2004, CDPH reported 1,206 HIV diagnoses (as of December 31, 2005). Male-to-male sexual contact continued to be the leading mode of transmission (45 percent). Injection drug use declined from 20 percent of HIV diagnoses in 2000 to 13 percent in 2004. In 2004, non-Hispanic Blacks accounted for the majority of HIV diagnoses (55 percent), followed by non-Hispanic Whites (25 percent), and Hispanics (15 percent).

Since 2003, CDPH has been part of CDC's National HIV Behavioral Surveillance, locally known as Project CHAT (Chicago Health Assessment). Between December 2003 and November 2004, 1,147 adult men who have sex with men were surveyed for CHAT; more than one-half reported using an illicit drug in the past 12 months. Methamphetamine use, which was reported by 11 percent of participants, was associated with higher rates of unprotected anal sex and attending bathhouses. Self-reported HIV prevalence was significantly higher among methamphetamine users (22 percent) than among non-users (8 percent). Other illicit drugs, such as powder cocaine and club drugs (e.g., GHB, MDMA, ketamine) were also associated with higher HIV prevalence and high-risk sexual behavior.

More recently (June 1, 2005, to December 31, 2005), 529 IDUs were surveyed for Project CHAT. The majority of the respondents were daily heroin injectors (82 percent), and 27 percent reported regular sharing of injection paraphernalia. More than one-third of IDUs reported having unprotected sex with their last casual sex partner. Six percent reported an HIV-positive result at their most recent test. Findings from the two CHAT surveys highlight the need to address substance use as it relates to transmission of HIV and not just in the MSM and IDU populations, but among all Chicagoans at risk.

In 2005, 90 percent of Cook County students in grades 9 through 12 reported being taught about AIDS or HIV infection in school, which reflected an increase from 82 percent in 1995. Despite this improvement in education, a considerable proportion of students continue to report risky behavior that may place them at risk for sexually transmitted infections. In 2005, 57 percent were sexually active, 31 percent did not use a condom, and 15 percent consumed alcohol or drugs before their last sexual intercourse.

Recent studies of young IDUs conducted by authors of this report indicate high levels of HIV risk behaviors but very low levels of HIV infection, particularly among those who reside in the suburbs. It should be

noted, however, that the studies are not directly comparable, because each had unique sampling and recruitment strategies. Analysis of the NIHU Study ( $n=429$ ) of young noninjecting heroin users found an HIV and HCV seroprevalence of 4 and 2 percent, respectively. During the 24-month followup period, no HIV seroconversions and 10 HCV seroconversions were observed.

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**Exhibit 1. DAWN ED Sample and Reporting Information: January–June 2005**

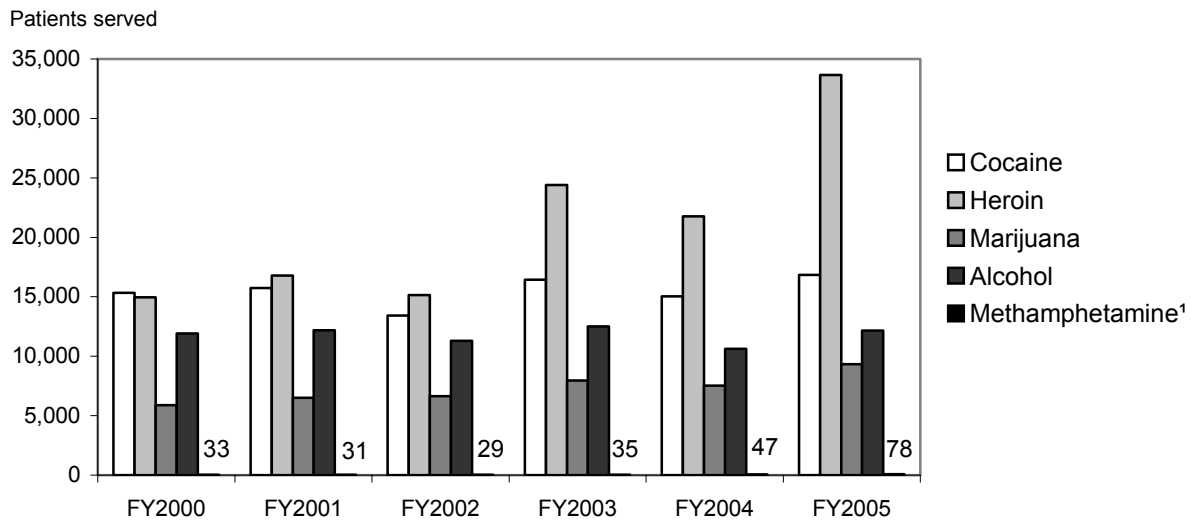
CEWG Area	Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
				90–100%	50–89%	<50%	
Chicago	88	76	78	24-30	0–2	0–2	45–52

<sup>1</sup>Short-term, general, non-Federal hospital with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department.

SOURCE: DAWN Live!, OAS, SAMHSA, updated 4/17-18, 2006

**Exhibit 2. Persons Served in Publicly Funded Treatment Programs in Chicago, by Primary Substance: FYs 2000–2005**



<sup>1</sup>Methamphetamine values shown in the graph.

SOURCE: Illinois Department of Human Services, Division of Alcoholism and Substance Abuse

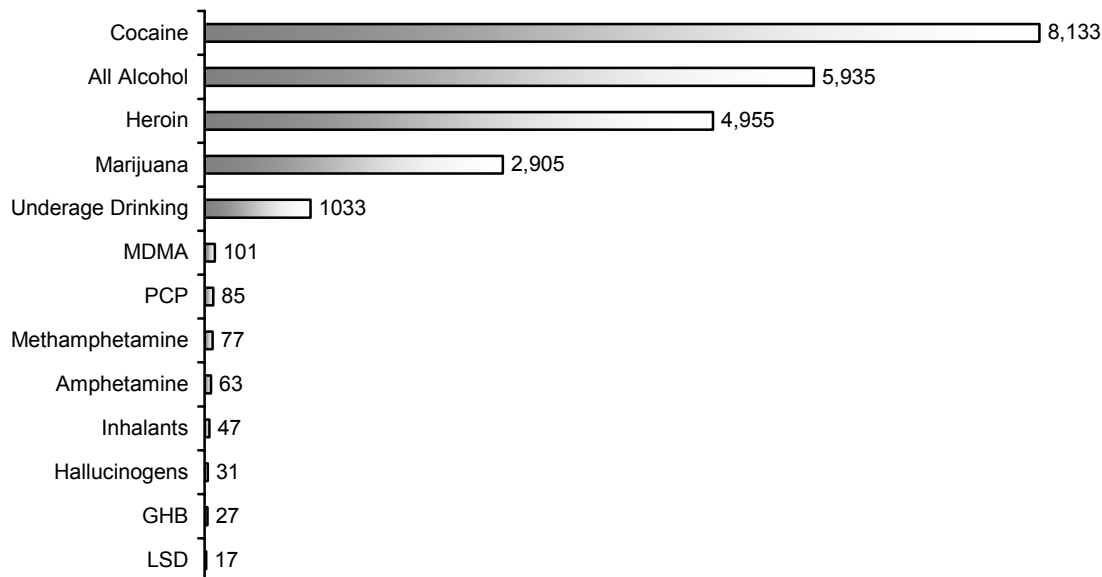


**Exhibit 3. Demographic Characteristics of Persons Served in Publicly Funded Treatment Programs in Chicago, by Primary Substance and Percent: FY 2005**

Characteristics (N=75,617)	Heroin (n=33,662)	Cocaine (n=16,845)	Alcohol (n=12,158)	Marijuana (n=9,338)	Other Opioids (n=685)	Methamphetamine (n=78)
Percent of Total	45	22	16	12	1	<1
Gender						
Male	51	59	75	77	54	77
Female	49	41	25	23	46	23
Race/Ethnicity						
White	8	10	19	7	19	68
African-American	82	82	58	76	69	15
Hispanic	8	6	21	15	11	5
Other	2	2	2	2	1	12
Age						
17 or younger	-	-	3	41	-	3
18-64	99	100	96	59	100	97
65 and older	1	-	1	-	-	-
Route of Administration						
Oral	1	2	100	4	16	9
Smoking	2	91	-	95	6	47
Inhalation	82	7	-	1	64	33
Injecting	15	-	-	-	14	10
Secondary Drug	Cocaine 35	Alcohol 44	Cocaine 28	Alcohol 37	Cocaine 36	Alcohol Marijuana 19

SOURCE: Illinois Department of Human Services, Division of Alcoholism and Substance Abuse

**Exhibit 4. Numbers of Selected Illicit Drug Reports in Chicago EDs (Unweighted<sup>1</sup>): January–December 2005**



<sup>1</sup>Unweighted data are from 26–30 Chicago EDs reporting to DAWN in January–December 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted and, therefore, are subject to change.

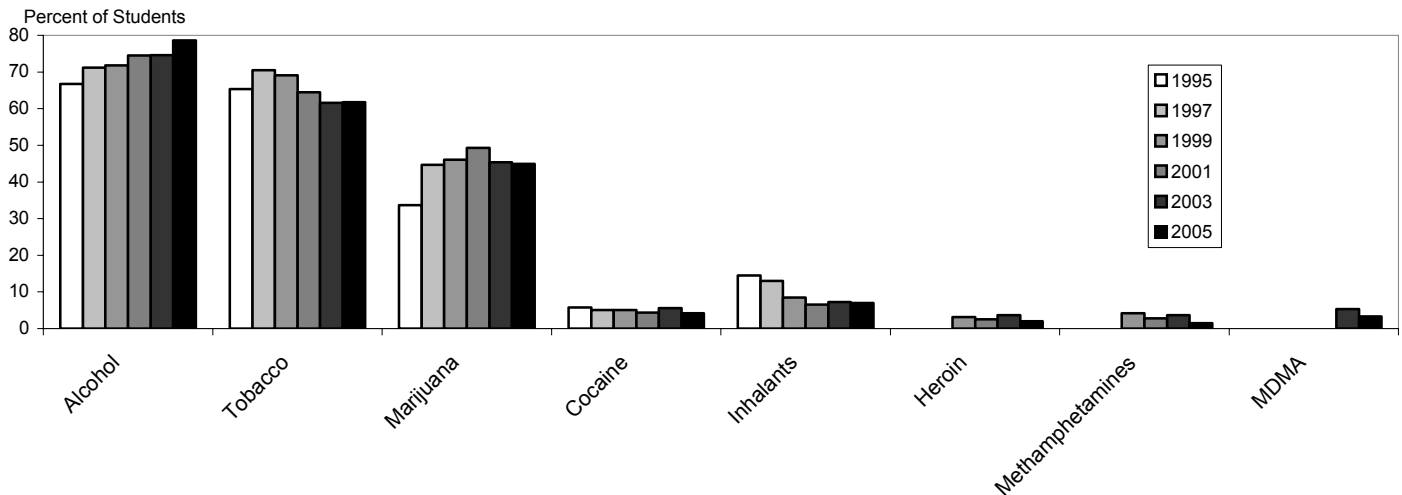
SOURCE: DAWN Live!, OAS, SAMHSA, updated 4/17–18/2006

**Exhibit 5. Numbers and Percentages of Drugs Analyzed by Forensic Labs in Chicago: FY 2003–2005<sup>1</sup>**

Selected Substance	FY 2003		FY 2004		FY 2005	
	Count	Percent	Count	Percent	Count	Percent
Cannabis	28,872	47.03	30,176	47.15	34,144	49.01
Cocaine	20,733	33.77	21,384	33.41	22,428	32.19
Heroin	11,050	18.00	11,247	17.57	11,597	16.65
Methamphetamine	127	0.21	230	0.36	412	0.59
3,4-Methylenedioxyamphetamine	97	0.16	188	0.29	286	0.41
Phencyclidine	177	0.29	320	0.50	202	0.29
Hydrocodone	36	0.06	33	0.05	79	0.11
Methadone	59	0.10	55	0.09	69	0.10
Alprazolam	32	0.05	42	0.07	59	0.08
Psilocin	23	0.04	9	0.01	53	0.08
Codeine	12	0.02	24	0.04	41	0.06
Diazepam	21	0.03	24	0.04	31	0.04
Clonazepam	19	0.03	16	0.02	26	0.04
Oxycodone	NA	NA	12	0.02	23	0.04
Amphetamine	NA	NA	17	0.03	16	0.02
3,4-methylenedioxyamphetamine	28	0.05	26	0.04	15	0.02
Ketamine	15	0.02	22	0.03	15	0.02
Propoxyphene	3	<0.01	NA	NA	13	0.02
Morphine	10	0.02	20	0.03	10	0.01
Psilocybine	11	0.02	6	0.01	9	0.01
Lorazepam	13	0.02	10	0.02	8	0.01
Pseudoephedrine	4	0.01	NA	NA	8	0.01
Chlordiazepoxide	4	0.01	NA	NA	2	<0.01
Lysergic acid diethylamide	4	0.01	NA	NA	2	<0.01
<b>Total Items Reported</b>	<b>61,391</b>		<b>64,002</b>		<b>69,668</b>	

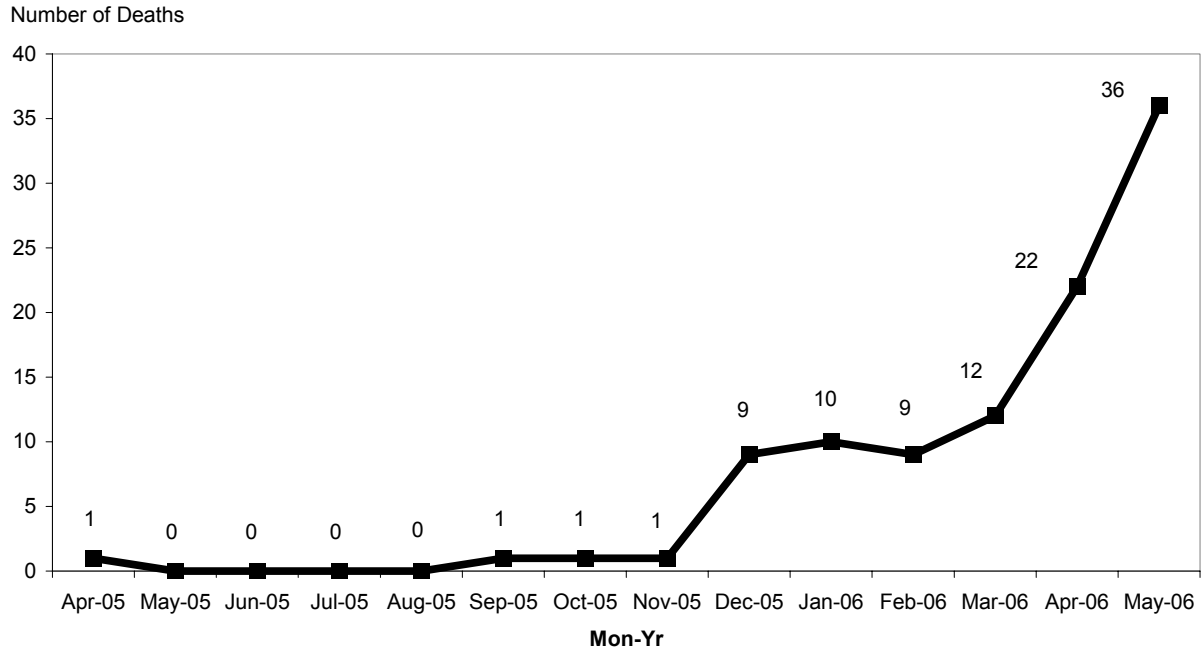
<sup>1</sup>Drug items analyzed between October 1st and September 30th of each year.  
SOURCE: NFLIS, DEA

**Exhibit 6. Lifetime Substance Use Prevalence Among 9th through 12th Grade Students in Chicago, by Percent: 1999–2005<sup>1</sup>**



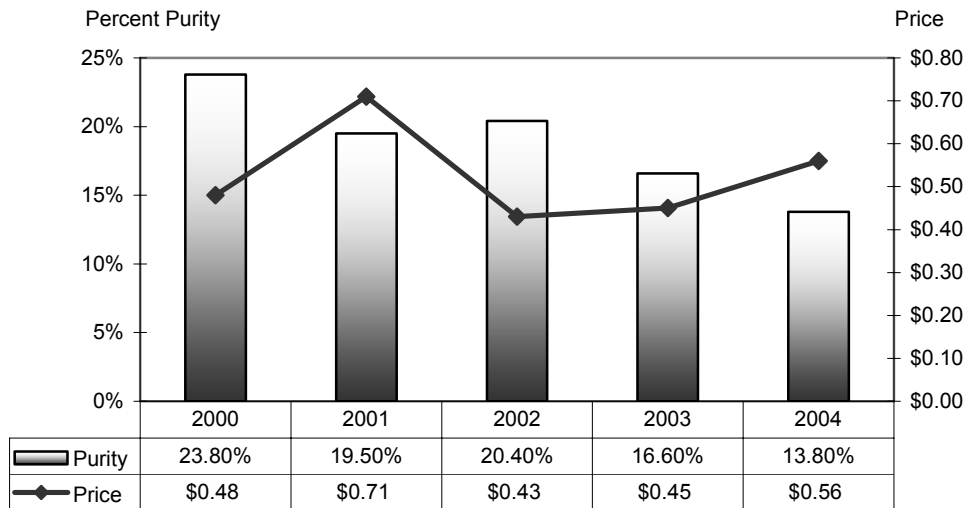
<sup>1</sup>Heroin and Methamphetamines were added to the survey in 1999 and MDMA was added in 2003.  
SOURCE: CDC, Youth Risk Behavior Surveillance System, 1995-2005

**Exhibit 7. Overdose Deaths Related to Fentanyl in Cook County, by Month: April 2005 – May 2006**



SOURCE: Cook County Medical Examiner

**Exhibit 8. Heroin<sup>1</sup> Price and Purity Trends in Chicago: 2000–2004**



<sup>1</sup>South American heroin.  
SOURCE: DMP, DEA

# Patterns and Trends in Drug Abuse in Denver and Colorado: January–December 2005

Tamara Hoxworth<sup>1</sup>

## ABSTRACT

*Excluding alcohol, marijuana abuse has resulted in the highest number of treatment admissions since 1997 and represents the highest percentage of users entering treatment within 3 years of initial use. In 2005, cocaine ranked third in illicit treatment admissions, but it accounted for the highest illicit drug rate per 100,000 persons for hospital discharges from 1996 through 2005 and for the highest number of illicit drug ED reports in 2005. Cocaine also accounted for the highest drug-related mortality rates from 1996 through 2002, but it was surpassed in 2003 by all opiates including heroin and in 2004 by opiates other than heroin. Cocaine had the highest number of illicit drug-related calls to the Rocky Mountain Poison & Drug Center from 2001 through 2003 in the Denver area but was surpassed by methamphetamine in 2004. In 2005, methamphetamine also surpassed cocaine in statewide poison calls. Since 2003, methamphetamine has exceeded cocaine treatment admissions statewide, and it surpassed cocaine admissions in the Denver/Boulder metropolitan area in 2005. Most methamphetamine abuse indicators have risen since 2000, and drug enforcement officials and treatment providers have corroborated reports of increased methamphetamine use and trafficking in Colorado. While clandestine laboratory closures decreased steadily since 2003, the amount of methamphetamine seized increased, most likely because an estimated 80 percent of Colorado's methamphetamine comes from outside the State, predominantly Mexico. From 2000 through 2004, most heroin abuse indicators decreased; the exception was an increase in the amount of heroin seized since 2002. However, in 2005, heroin treatment admissions increased slightly, which corroborates anecdotal reports from Denver drug detectives and outreach workers. They claimed that heroin was increasingly available and prices had fallen, resulting in increased use, especially among street youth. In 2003 and 2004, opiate-related drug misuse mortalities exceeded those that were cocaine related. In a recent survey of local*

*treatment providers statewide, more than one-half reported an increase in opiate prescription diversion, especially OxyContin. Beyond abuse of illicit drugs, alcohol remained Colorado's most frequently abused substance and accounted for the most treatment admissions, emergency department reports, poison center calls, drug-related hospital discharges, and drug-related mortality.*

## INTRODUCTION

### Area Description

Denver, the capital of Colorado, is located slightly northeast of the State's geographic center. Covering only 154.6 square miles, Denver is bordered by several suburban counties: Arapahoe on the southeast, Adams on the northeast, Jefferson on the west, Broomfield on the northwest, and Douglas on the south. These areas made up the Denver Population and Metropolitan Statistical Area (PMSA) through 2004, which accounted for 50 percent of the total population.

For this report, both statewide data and data for the Denver/Boulder metropolitan area were analyzed; the latter includes the counties of Denver, Boulder, Adams, Arapahoe, Broomfield, Clear Creek, Douglas, Gilpin, and Jefferson and accounts for 56 percent of the total population.

Denver and the surrounding counties experienced rapid population growth from the 1990s through 2003, and Colorado was the third fastest growing State in the Nation until 2004, when the growth rate declined. The State population more than doubled from 1960 to 2000, but recently, the population moving out of Colorado exceeded new arrivals. Colorado now ranks among those States with the lowest rates of net domestic immigration and is 14th on the list of fastest growing States. The 2000 census projections estimated a population increase of 1 percent from 4,653,844 in 2004 to 4,720,772 by the end of 2005.

The median age of residents in the Denver area is 34.1. For the population 25 and older, 82 percent are high school graduates and 36 percent have bachelor's degrees. Males constitute 50.7 percent and females account for 49.3 percent of the population. Ethnic and racial characteristics of the area are White 71 percent, Black or African-American 11 percent, Native American Indian 1 percent, and Asian 3 percent. Hispanics or Latinos of any race compose 35 percent of the area's population.

The major industries in Colorado are communications, utilities, agriculture, and transportation. By the

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end of 2004, Colorado's employment growth rate of 2.1 exceeded that of the Nation (1.6). The per capita income for the city is \$27,676. The median household income is \$43,777, and the median family income is \$53,616. Eleven percent of families and 15 percent of individuals in the area are below the poverty level. The unemployment rate in Colorado as of April 2006 was 4.3. Nationally it was 4.7.

The Violent Crime Rate National Ranking for Colorado is 25 out of 50.

Two major interstate highways, I-25 and I-70, intersect in Denver. I-25 runs north-south from Wyoming through New Mexico, and I-70 runs east-west from Maryland through Utah. The easy transit across multiple States via these highways, along with the following other factors, may influence drug use in Denver and Colorado. The area's major international airport is nearly at the Nation's midpoint. The region is characterized by a growing population and expanding economic opportunities. A large tourism industry draws millions of people to Colorado each year. Remote, rural areas are ideal for the undetected manufacture, cultivation, and transport of illicit drugs. Several major universities and small colleges are in the area. A young citizenry is drawn to the recreational lifestyle available in Colorado.

### Data Sources

Information for this report was obtained from the sources shown below:

- **Treatment data** are provided by the Drug/Alcohol Coordinated Data System (DACODS), which is maintained by the Alcohol and Drug Abuse Division (ADAD) at the Colorado Department of Human Services. Data for this system are collected on clients at admission and discharge from all Colorado alcohol and drug treatment agencies licensed by ADAD. Treatment admissions are reported by the primary drug of use (as reported by the client at admission) unless otherwise specified. Annual figures are given for calendar years 2000 through 2005.
- **Drug-related emergency department (ED) reports** for the Denver metropolitan area from January through December 2005 were provided by the Substance Abuse and Mental Health Services Administration (SAMHSA) Office of Applied Studies (OAS) through its Drug Abuse Warning Network (DAWN *Live!*) restricted access online query system. These data were accessed on and reflect cases received by DAWN as of May 21, 2006, and are subject to change in

future OAS quality reviews. Because these data were unweighted, they cannot be used as statistical estimates for the reporting area. Only weighted DAWN data released by SAMHSA can be used for trend analysis. The total number of eligible DAWN hospitals for the time period measured was 15, and 7 hospitals reported during every month in 2005, except October (when 8 hospitals reported). A "completeness" table appears in exhibit 1. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. Because a patient may report multiple drugs (up to six drugs and alcohol), the number of drug reports may exceed the number of cases. A full description of the DAWN system can be found at <<http://dawninfo.samhsa.gov>>.

- **Drug-related mortality data** statewide for 2004 are from the Colorado Department of Public Health and Environment (CDPHE); 2003 data are from the DAWN system. These data are summarized in this paper; more complete details were reported in the January 2006 Denver paper.
- **Hospital discharge data** statewide for 1997–2005 were provided by the Colorado Hospital Association through CDPHE's Health Statistics Section. Data included diagnoses (ICD-9-CM codes) for inpatient clients at discharge from all acute care hospitals and some rehabilitation and psychiatric hospitals. These data exclude ED care.
- **Rocky Mountain Poison and Drug Center (RMPDC) data** are presented for Colorado. The data represent the number of calls to the center regarding "street drugs" from 1996 through December 2005.
- **Statistics on seized drug items** were obtained from *Colorado Fact Sheet Reports* published by the Drug Enforcement Administration (DEA).
- **Availability, price, and purity data** were obtained from the February 2006 National Drug Intelligence Center's report, *National Illicit Drug Prices, December 2005*.
- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** were obtained from the CDPHE and are presented for 2001 through 2005.
- **Population statistics** were obtained from the Colorado Demography Office, Census 2000, including estimates and projections, and from <[factfinder.census.gov](http://factfinder.census.gov)>.

- **Qualitative and ethnographic data** for this report were available from clinicians from treatment programs across the State, Denver Vice Detectives, street outreach workers, and local researchers.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

Of the five major drugs—cocaine, heroin, other opiates, methamphetamine, and marijuana—cocaine ranked third in statewide and Denver-area treatment admissions; it declined slightly from 2004 to 2005. Of five cocaine indicators, all decreased, except for amount seized. Excluding alcohol, cocaine ranked first in ED and hospital discharge reports of illicit drugs and second in poison control center calls.

During 2005, cocaine was reported as a primary drug in 18 percent of treatment admissions (excluding alcohol) statewide (exhibit 2). Since 2000, cocaine constituted 18–21 percent of statewide admissions each year, and through 2002, it was second to marijuana in volume of treatment admissions. Since 2003, methamphetamine admissions have exceeded cocaine admissions. In the Denver metropolitan area, cocaine was reported in 20 percent of treatment admissions (excluding alcohol) during 2005 (exhibit 3). While it remained second to marijuana in admissions from 2000 through 2004, methamphetamine admissions slightly exceeded those for cocaine in 2005.

Statewide, the proportion of male cocaine admissions rose from 55 percent in 2000 to 62 percent in 2004, and, as shown in exhibit 3, was at 59 percent in 2005. This increase is more substantial when data are restricted to the Denver area, where males represented 51 percent of cocaine admissions in 2000, 63 percent in 2004, and 60 percent in 2005 (exhibit 4).

Historically, Whites have accounted for the largest proportion of cocaine admissions statewide (44 percent in 2000–2005). However, the proportion of Hispanics/Latinos among cocaine admissions, which is 31 percent of admissions overall, increased each year statewide (from 27 percent in 2001 to 35 percent in 2005) and in Denver (from 23 percent in 2000 to 32 percent in 2005). From 2000 to 2005, the proportion of Black treatment admissions declined from 22 to 19 percent statewide and from 31 to 24 percent in the Denver area.

Statewide, 2 percent of primary cocaine admissions in 2005 were for persons younger than 18, and 17 percent were for persons younger than 25 (exhibit 4). Roughly 70 percent of cocaine admissions from 2000

through 2005 were for persons age 25–44. However, that age group's proportion declined steadily from 76 percent in 2000 to 67 percent in 2005, while the proportion of those older than 44 increased from 8 to 16 percent during that time, which may be indicative of a cohort that is aging. The Denver metropolitan area showed similar trends, with a decline in cocaine admissions of those age 25–44 (80 to 66 percent from 2000 to 2004; 67 percent in 2005) and a rise in persons older than 44 (7 to 17 percent from 2000 to 2004; 16 percent in 2005). The Denver area also reported an increase from 9 to 15 percent in admissions for persons age 18–24 from 2000 to 2005.

In 2005, cocaine users in Colorado and Denver reported an average age of onset of 23 (median=21, exhibit 6). From 2000 onward, the mean age of first use was between 22 and 23 statewide and in the Denver area.

In 2005, the mean number of years from reported onset of cocaine use to the first treatment episode was 9.6 for statewide admissions and 9.7 for Denver-area admissions (exhibit 6), down from 10.6 (for both State and Denver area admissions) in 2004. Before 2004, the mean time to enter treatment remained between 10.0 and 10.2 years statewide and 10.0 and 10.7 years in the Denver area.

In addition to traditional demographics, the proportion of new users (those using less than 3 years) and users entering treatment for the first time (persons with no prior treatment episodes) were examined. Statewide, around 13–14 percent of cocaine users had been using less than 3 years from 2000 through 2004. In 2005, 15 percent of cocaine users admitted to treatment were defined as new users (exhibit 6). In the Denver area, the proportion of new users in treatment increased from 10 percent in 2003 to 13 percent in 2004 and 15 percent in 2005.

Statewide, the proportion of first-time treatment admissions declined from 36 percent in 2000, to 31 percent in 2004 and 32 percent in 2005. In the Denver area, first-timers constituted 33 percent of 2005 cocaine-related admissions, up from 28 percent in 2003. Prior to 2003, the proportion of new treatment admissions wavered between 29 and 31 percent.

Statewide, in 2005, the proportions of clients who smoked, inhaled, or injected cocaine were 62, 31, and 6 percent, respectively (exhibit 4). The proportion that smoked increased slightly from 2000 (58 percent) to 2004 (61 percent). From 2002 through 2005, the proportion inhaling cocaine increased from 26 to 31 percent, and the proportion injecting fell from 12 to 6 percent. The Denver-area proportions were simi-

lar. In 2005, 62, 33, and 4 percent of Denver-area cocaine users smoked, inhaled, or injected the drug, respectively (exhibit 5). However, while smoking has been fairly stable statewide, in the Denver area, the proportion of cocaine smokers declined steadily from 69 percent in 2000 to 62 percent in 2005. Compared with Colorado overall, the Denver area had a more dramatic rise in inhaling cocaine (from 22 percent in 2002 to 33 percent in 2005) and a larger decline in injecting (12 to 4 percent from 2002 to 2005).

Treatment data show that cocaine users most often use alcohol as a secondary drug (exhibits 4 and 5), and treatment providers have indicated that marijuana is commonly used with cocaine to enhance its effects or to lower the effects of withdrawal.

Excluding alcohol, cocaine accounted for the most illicit drug-related ED reports in the unweighted DAWN *Live!* data for the Denver area in 2005; it was second only to alcohol in the “major substances of abuse” category. There were 2,264 ED reports for cocaine, which represented 40.4 percent of illicit drug ED reports (exhibit 7).

As indicated in the Denver CEWG report in January 2006, cocaine-related deaths statewide declined in 2004 to 170 (36.5 per million). The 2003 DAWN data for Denver/Aurora County show a similar pattern, with cocaine-related deaths lower than those for alcohol and “other opiates.”

Cocaine has been second only to alcohol in drug-related hospital discharges since 1998, and these discharges rose steadily from 1997 (56 per 100,000) through 2004 (90 per 100,000) (exhibit 8). However, in 2005, the proportion of cocaine-related hospital discharges decreased, and the rate per 100,000 population remained stable from 2004.

From 2001 through 2003, poison control center call data for street drugs were reported for the city and county of Denver only. (In 2004, data were received for both the city of Denver and the entire State, but from that point on, only statewide data were available.) From 2001 through 2003, cocaine was second only to alcohol in the number of Denver calls received by the Rocky Mountain Poison & Drug Center, and the number of cocaine calls rose from 59 in 2001 to 68 in 2003 (exhibit 9). In 2004, cocaine accounted for 59 calls in Denver and 120 calls statewide. In 2005, cocaine constituted 107 poison center calls statewide, and they were exceeded by statewide methamphetamine calls.

Reports from clinicians, researchers, and street outreach workers around the State corroborate the con-

tinuing cocaine problems reflected in the indicator data. However, qualitative reports indicate a shift to methamphetamine among some stimulant users, especially the younger population. Clinicians report that cocaine is rarely a primary drug for those younger than 18, regardless of urban or rural setting.

## Heroin

Before 2005, most heroin indicators, except for quantities seized, had declined. However, in late 2005, there were anecdotal reports of increased availability and use, and 2005 treatment data showed slight increases in admissions. Despite this, the quantity recovered in drug enforcement seizures decreased in 2005.

During 2005, heroin was reported as a primary drug in 9 percent of treatment admissions (excluding alcohol) statewide and 14 percent in the Denver metropolitan area (exhibits 2 and 3). Since 2000, treatment admissions fell from 16 to 9 percent statewide and from 28 to 14 percent in the Denver area. Since 2001, total heroin admissions have trailed marijuana, methamphetamine, and cocaine admissions statewide.

Heroin admissions have been predominately male. From 2000 to 2005, the proportion of male heroin admissions wavered between 63 and 66 percent statewide and from 64 to 67 percent in the Denver area. In 2005, males represented 66 percent of heroin admissions statewide and in the Denver area (exhibits 4 and 5).

Historically, Whites have accounted for the largest proportion of heroin admissions. Statewide in 2005, Whites, Hispanics, and Blacks accounted for 65, 24, and 8 percent of admissions, respectively. In 2005, 61 percent of heroin admissions from the Denver area were White. The proportion of White admissions was highest in 2001, at 65 percent, but the proportion decreased to 60 percent in 2003 and 2004. Also in 2005, Blacks represented 10 percent of admissions, a proportion that vacillated between 8 and 11 percent from 2000 to 2005. The proportion of Hispanic heroin admissions decreased from 25 to 21 percent from 2000 to 2002, rose to 27 percent in 2003, and declined slightly to 26 percent in 2005.

Statewide, the average age of heroin users admitted to treatment in 2005 was 38 (median=37). Since 2000, less than 1 percent of heroin users in treatment were younger than 18. Changes in two age ranges over time are indicative of an aging cohort. From 2000 to 2004, the proportions of persons age 35–44 declined from 34 to 23 percent, while the proportion of those 45 and older increased from 25 to 34 per-

cent. In 2005, 33 percent of heroin admissions statewide were for persons older than 44. The Denver area showed similar trends. There was a decline in heroin admissions of persons age 35–44 (from 33 percent in 2000 to 23 percent in 2004) and a rise in persons 45 and older from 2000 to 2004 (from 27 to 37 percent). In 2005, the 45-and-older group constituted 34 percent of heroin admissions.

Heroin users tend to be the oldest drug-using admissions group, and they start to use at the oldest age. Among 2005 admissions statewide, the mean and median ages of onset were 21.7 and 19.0, respectively (exhibit 6). The mean and median ages decreased slightly from 2000 to 2005 (mean, 22.6 to 21.7 and median, 20.0 to 19.0). Denver showed a similar trend, with a decrease from 2000 to 2005 in the mean age of onset, from 22.9 to 21.8, and in the median age from 21.0 to 19.0.

Among 2005 heroin admissions, the mean time to enter treatment was 12.8 years for the State and 13.6 for the Denver area (exhibit 6). Statewide, the mean time to enter treatment rose from 8.9 to 14.0 years from 2000 to 2004. During that same period, Denver showed a similar trend, with an increase from 7.8 to 14.8 years.

Statewide in 2005, 12 percent of heroin users had been using less than 3 years (exhibit 6), a slight rise from 11 percent in 2003 and 2004. In Denver, the proportion of new users in treatment decreased from 15 to 10 percent from 2000 to 2004 and rose to 12 percent in 2005.

In 2005, first-timers represented 22 percent of treatment admissions statewide and 23 percent in the Denver area (exhibit 6). Statewide, the proportion of first-timers remained steady at 22 percent, except for a rise to 24 percent in 2002, followed by a decline to 20 percent in 2003. In Denver, from 2000 to 2002, the proportion of first-timers rose from 20 to 23 percent and declined to 21 percent in 2003 and 2004.

Heroin is a drug that is predominately injected. Statewide, the proportion of heroin injectors remained between 86 and 88 percent between 2000 and 2004 (exhibit 4). However, in 2005, the proportion injecting declined to 84 percent, while the proportion smoking heroin increased from 5 to 9 percent from 2003 to 2005. The proportion inhaling heroin remained between 4 and 6 percent from 2000 through 2005. Denver's proportions were similar to statewide figures. Statewide, the proportion injecting remained between 86 and 88 percent from 2000 to 2004 and declined to 83 percent in 2005 (exhibit 5). The proportion who smoked heroin remained between 5 and

7 percent from 2000 to 2004 and rose to 9 percent in 2005. The proportion inhaling remained between 4 and 6 percent from 2000 to 2005.

Treatment data, overall, show that heroin users most often used cocaine as a secondary drug (exhibits 4 and 5), followed by marijuana and other opiates.

DAWN *Live!* unweighted data showed 667 heroin-related ED reports in 2005, accounting for nearly 12 percent of illicit drug reports (exhibit 7).

Statewide, in 2004, there were 22 heroin-related deaths; however, because of the variation in how drugs were classified and in the geographical areas reporting, no mortality trends can be assessed for heroin alone. In 2003, there were seven heroin-related deaths reported by DAWN in the Denver/Aurora County area.

CDPHE statewide hospital discharge data from 1997 to 2005 combined all narcotic analgesics and other opiates, including heroin. While trends in this indicator for heroin alone cannot be assessed, this indicator for all opiates increased steadily, with the rate almost doubling in 7 years, from 36 per 100,000 in 1997 to 73 per 100,000 in 2003 (exhibit 8). However, the rate of hospital discharges for all opiates decreased to 61 per 100,000 in 2004 and increased to 64 per 100,000 in 2005.

The number of Denver-area poison calls for heroin and morphine combined remained fairly steady with 19, 16, 22, and 18 calls each year from 2001 through 2004, respectively (exhibit 9). Since 2004, statewide heroin calls have been broken out separately, and there were 20 heroin calls statewide in 2004 and 24 calls statewide in 2005.

In late 2005, Denver Vice Detectives and street outreach workers reported increasing heroin availability, falling prices (exhibits 10 and 11), and more widespread heroin use among youth on the street. This is noteworthy, since 2005 was the first year since before 2000 that an increase, albeit small, was seen in Denver-area heroin-related treatment admissions.

### **Other Opiates**

This category excludes heroin and includes all other opiates and narcotic analgesics, such as methadone, morphine, hydrocodone, hydromorphone, codeine, and oxycodone. Of the five major illicit drugs, this category has ranked last in numbers and proportions of treatment admissions and has remained fairly steady over the last 6 years. Other opiates ranked third in volume of hospital discharges, which in-



creased steadily through 2003 and declined in 2004. While this category accounted for the highest number of deaths (excluding alcohol) in 2004, discrepancies in the classification of opiates and geographical areas reported precluded assessment of mortality trends.

During 2005, opiates other than heroin were reported as primary drugs in 4.6 percent of statewide treatment admissions (excluding alcohol) (exhibit 2); this proportion had remained between 3.3 and 4.3 percent in 2000–2004. In Denver, other opiates represented 4–5 percent of treatment admissions (excluding alcohol) in 2001–2004 (exhibit 3) and 6 percent in 2005.

Treatment admissions related to nonheroin opiates have always had higher proportions of females than the other four major drugs. Statewide, females accounted for 55 percent of other opiate treatment admissions in 2001; however, this proportion dropped and stayed between 51 and 52 percent through 2004. In 2005, the proportion of female other opiate treatment admissions was at its lowest: 49 percent. In Denver, females represented 55 percent of nonheroin opiate treatment admissions in 2001, but they declined to 49 percent in both 2004 and 2005 (exhibit 5).

Statewide and in Denver, Whites accounted for the largest proportion of treatment admissions related to other opiates. Since 2000, the proportion of Whites statewide fluctuated between 81 and 88 percent. In 2005, Whites represented 86 percent of other opiate admissions (exhibit 4). Black treatment admissions for other opiates remained between 2 and 3 percent since 2000 (2.6 percent in 2005). The proportion of Hispanic admissions in Colorado vacillated between 6 and 13 percent and was 9 percent in 2005. In the Denver area, the proportion of White admissions for other opiates declined from 86 to 80 percent between 2000 and 2002, increased to 89 percent in 2003, declined to 83 percent in 2004, and was 86 percent in 2005 (exhibit 5). In 2005, Blacks represented 3.6 percent of admissions, down from a high of 5.3 percent in 2003. However, the moderate change in proportion is influenced by the small numbers of Black other opiate admissions (between 8 and 15 from 2000 through 2005). The numbers and proportions of Hispanic opiate admissions vacillated even more (between 8 and 33 admissions, and 4 and 12 percent over the 6-year period). Hispanics represented 7 percent of Denver-area opiate admissions in 2005.

Like heroin users, users of other opiates tend to be older than other drug-using groups and start to use at the oldest age. Statewide, the average age of other opiate users admitted to treatment in 2005 was 37 (median=36.5); 1 percent were younger than 18, and

28 percent were older than 44. Two age ranges demonstrate a possible trend toward younger users. From 2000 to 2005, the proportion of those age 18–34 increased from 34 to 42 percent, while those older than 35 declined from 64 to 55 percent. Likewise, in Denver, there was an overall increase in admissions of users of other opiates in persons age 18–34 (from 31 to 40 percent from 2000 through 2005).

In 2005 statewide treatment admissions, the mean and median ages of onset statewide were 24.9 and 22.0, respectively (exhibit 6), decreasing since 2001 from a mean onset age of 27.4 and a median of 27. Denver showed a similar trend, with a decrease from 2001 to 2005 in the mean age of onset (from 28.0 to 24.6) and in the median age (from 27.0 to 21.0).

In 2005, the mean time to enter treatment for other opiate admissions was 9.9 years statewide and 10.9 years for the Denver area (exhibit 6). Statewide, the mean time to enter treatment declined from 12.0 years since 2003. Denver showed a similar decline from 13.4 years in 2003.

In 2005, 17 percent of users of other opiates admitted to treatment in Colorado and in Denver had been using less than 3 years (exhibit 6). Statewide, this proportion was at its lowest (14 percent) in 2003 and jumped to 20 percent in 2004. In Denver, the proportion of new users in treatment increased from 11 to 17 percent from 2002 through 2005.

In 2005, first-time other opiate admissions represented 37 percent of treatment admissions statewide and 39 percent in the Denver area (exhibit 6). Statewide, the proportion of first-timers increased from 32 to 37 percent from 2002 to 2005. In Denver from 2000 to 2005, the proportion of first-timers fluctuated widely between 29 and 39 percent, with no clear trend.

Nonheroin opiates are most often taken orally. Statewide between 2000 and 2005, the proportion of admissions ingesting other opiates orally ranged from 83 to 87 percent. In 2005, 84 percent of this admissions group ingested other opiates orally, and 7 and 9 percent, respectively, inhaled and injected other opiates (exhibit 4). From 2000 to 2005, the proportions injecting declined from 12 to 8 percent. The proportion inhaling increased from 1 to 7 percent, most likely reflecting the practice of crushing and inhaling OxyContin. Denver's proportions were similar. The proportion of other opiate admissions ingesting orally ranged from 84 to 89 percent in 2000–2004; it was 85 percent in 2005 (exhibit 5). The proportions who injected and inhaled were both 7 percent in 2005. The Denver area did not show the same decline as seen

statewide in the numbers injecting, but inhaling increased from 2002—from 0 to 7 percent.

Treatment data, overall, show that other opiates users most often used alcohol as a secondary drug (exhibits 4 and 5), followed by marijuana and cocaine.

In 2005, the unweighted DAWN *Live!* data show 1,110 ED reports for opiates/opioids (exhibit 7). In 2004, heroin deaths were categorized separately from all other opiates. In 2004, there were 238 other opiate-related deaths. In 2003, other opiate-related deaths in DAWN in the Denver/Aurora County area totaled 138, excluding those involving suicide.

There were no poison control center calls reported for opiates other than heroin and morphine. However, as noted earlier, CDPHE statewide hospital discharge data for 1997–2005 combined all narcotic analgesics and opiates, including heroin. This indicator increased steadily, with the rate almost doubling in 7 years, from 36 per 100,000 in 1997 to 73 per 100,000 in 2003. In 2004, however, the number of hospital discharges for all narcotics decreased to 61 per 100,000, but it increased in 2005 to 64 per 100,000.

More than one-half of respondents who completed a survey of treatment providers reported seeing increased diversion of other opiates, particularly OxyContin. In late 2005, six local high-school girls (four were cheerleaders) were caught selling morphine in their school after one stole the morphine from her grandmother's prescription. In May 2006, a Colorado University student was arrested for selling prescription drugs from his university dormitory room.

### **Methamphetamine**

Methamphetamine ranked first in the number of poison control center calls, second in statewide and Denver-area treatment admissions (excluding alcohol), and third in quantity of drug seizures. For hospital discharges and deaths, methamphetamine was not reported separately, but it was included in the general category of "amphetamines & stimulants," which ranked fourth on both of these indicators. Of five methamphetamine-specific indicators, four increased. While the number of laboratory closures had increased dramatically from 2000 through 2002, they have declined steadily ever since. Despite this decline, the quantity of methamphetamine seized in law enforcement raids has risen since 2003.

In 2005, methamphetamine was the primary drug reported for 31 percent of all treatment admissions (excluding alcohol) statewide (exhibit 2). The proportion of methamphetamine admissions increased each year (from 14 percent in 2000 to 31 percent in 2005). In

2003, methamphetamine exceeded cocaine in illicit drug admissions, and methamphetamine has been second to marijuana among admissions ever since. In the Denver area, methamphetamine represented proportionately fewer treatment admissions (21 percent in 2005) than statewide. However, as observed statewide, the proportion of methamphetamine admissions (excluding alcohol) in Denver rose each year (from 9 to 21 percent from 2000 through 2005). Moreover, Denver-area methamphetamine admissions exceeded heroin admissions in 2004 and surpassed both heroin and cocaine admissions in 2005.

After admissions for nonheroin opiates, methamphetamine admissions have the highest proportion of females statewide and in Denver (47 and 43 percent, respectively, in 2005) (exhibits 4 and 5). Statewide, the proportion of female admissions stayed between 45 and 46 percent from 2000 through 2002, jumped to 50 percent in 2003, decreased to 44 percent in 2004, and in 2005 was at 47 percent. In the Denver area, the proportion of female methamphetamine admissions was at 50 percent in 2000 and 2001, decreased to 46 percent in 2002, jumped to a high of 53 percent in 2003, and continued at a low of 43 percent since 2004.

Methamphetamine admissions in Colorado and Denver are predominately White (81 and 82 percent, respectively, in 2005) (exhibits 4 and 5). From 2000 to 2005, the proportion of White treatment admissions declined from 88 to 81 percent statewide and from 90 to 82 percent in the Denver area. At the same time, the proportion of Hispanic/Latino methamphetamine admissions rose from 8 to 14 percent statewide and from 7 to 13 percent in Denver.

Compared with cocaine, methamphetamine admissions tend to be younger. In 2005, the average age of persons admitted to treatment statewide for methamphetamine was 30 (median=28), and 31 percent were younger than 25. Sixty-one percent of methamphetamine admissions were for persons age 25 to 44, and this proportion remained steady since 2001. In the Denver area, the average age of 2005 treatment admissions was 30.6 (median=29). Twenty-eight percent of methamphetamine admissions in the Denver area were younger than 25; however, this proportion fluctuated from 23 to 34 percent over the period from 2000 to 2005. Sixty-three percent were age 25–44; this proportion also wavered over the years from 61 to 70 percent.

For the State and Denver metropolitan area, the average age of onset for methamphetamine use reported in 2005 admissions was 20.9 (median=18.0) (exhibit 6). Since 2000, the mean age of onset for metham-

phetamine admissions statewide and in Denver stayed between 20 and 21. The median age remained between 18 and 19 statewide and between 18 and 20 in the Denver area. From 2000 to 2005, the average time for methamphetamine abusers to enter treatment decreased from 8.7 to 7.5 years statewide and from 9.1 to 7.6 years in Denver.

Statewide, the proportion of new users rose from 15 to 18 percent from 2000 to 2003 and remained at 18 percent through 2005 (exhibit 6). In Denver, the proportion of new users in treatment increased from 10 percent in 2000 to 19 percent in 2003 and then declined to 17 and 16 percent in 2004 and 2005, respectively.

Statewide, 37 percent of methamphetamine treatment admissions in 2005 were first-timers (exhibit 6); that proportion declined from 45 to 36 percent from 2000 to 2004. In Denver, 33 percent of the 2005 methamphetamine admissions were first-timers, and the proportion remained between 34 and 36 percent from 2000 to 2004.

Statewide, in 2005, the proportions of clients who smoked, injected, or inhaled methamphetamine were 65, 21, and 12 percent, respectively (exhibit 4). The proportion who smoked increased dramatically from 2000 (39 percent) to 2005 (65 percent), while the proportions who injected and inhaled both decreased substantially during that time. Injectors decreased from 34 to 21 percent, and inhalers declined from 21 to 12 percent. During 2005 in the Denver area, the proportions who smoked, injected, or inhaled methamphetamine were 59, 23, and 15 percent, respectively (exhibit 5). As with the State overall, the proportion who smoked increased substantially from 36 to 61 percent from 2000 to 2004, and at the same time, the proportion who injected declined from 38 to 24 percent. While there appears to be an overall downward trend, the proportion of inhalers declined from 20 to 9 percent from 2000 to 2003, but during 2004 and 2005, the proportions were 13 and 15 percent, respectively.

Treatment data, overall, show that methamphetamine users most often use marijuana as a secondary drug, followed by alcohol (exhibits 4 and 5).

The unweighted DAWN *Live!* ED data for the Denver PMSA show 986 reports for methamphetamine in 2005.

Methamphetamine was included in the stimulants category in hospital discharge data. Overall, the rate of amphetamine-related hospital discharges nearly quadrupled from 1999 to 2005, from 16 per 100,000 to 62 per 100,000, respectively (exhibit 8).

In 2004, methamphetamine-related poison calls in the Denver area exceeded cocaine-related calls. In 2005, methamphetamine accounted for the highest number of calls ( $n=127$ ) statewide for all street drugs (exhibit 9).

Colorado treatment providers have reported that past users of cocaine have switched to methamphetamine because of its cheaper price and longer-lasting high.

As previously noted, methamphetamine laboratory closures have declined since 2002. While some experts from the DEA and North Metro Drug Task Force expressed a belief that the number of laboratories has not declined, but that manufacturers have become savvier at clandestine efforts; other reasons for the decline include legislation restricting precursor chemicals and increased community awareness.

It was also mentioned earlier that despite the decline in laboratory closures, the number of methamphetamine-related arrests and the quantities seized (exhibit 10) have increased. This is happening because Colorado's supply of Mexican methamphetamine has risen to compensate for lower local production. Despite Mexican methamphetamine's reputation of being much lower in quality than locally produced methamphetamine, some authorities said that the quality of currently available Mexican methamphetamine rivals that of locally produced methamphetamine.

In 2004, staff at the Denver Public Health Sexually Transmitted Disease (STD) Clinic surveyed clientele ( $n=981$ ) and noted an increased use of methamphetamine in men who have sex with men (MSM) (exhibit 12). For more information on this survey, please see the January 2006 Denver CEWG Report.

## **Marijuana**

Of the five major illicit drugs, marijuana ranks first in treatment admissions and amounts seized, second in ED reports and hospital discharges, and third in poison control center calls. Excluding alcohol, marijuana has continued to account for the highest numbers of treatment admissions statewide and in the Denver area, but the proportion of statewide treatment admissions for marijuana has decreased steadily since 2000. In Denver, the proportions of marijuana admissions varied, totaling 37 percent in 2001, 32 percent in 2003, 39 percent in 2004, and 37 percent in 2005 (exhibit 3).

Historically, marijuana admissions have represented the highest proportion of males among drug groups. In 2005, 76 percent of marijuana admissions statewide and 78 percent in Denver were male (exhibits 4

and 5). In prior years, the proportion of males was between 72 and 75 percent of admissions statewide; however, in Denver, the proportion of males increased substantially from 69 percent in 2003 to 78 percent in 2005.

In 2005, Whites, Hispanics, and Blacks constituted 51, 30, and 14 percent of marijuana admissions, respectively, statewide (exhibit 4). From 2003 to 2005, the proportion of White admissions decreased from 58 to 51 percent. However, the proportion of Black marijuana admissions rose from 2000 (7 percent) to 2005 (14 percent). The proportion of Hispanics decreased from 31 to 26 percent from 2000 to 2003, but increased in 2004 and 2005 (28 and 30 percent, respectively). In the Denver area, there was a clear downward trend in the proportion of White marijuana admissions from 2000 to 2005 (from 58 to 42 percent) but a consistent rise in Black admissions during that time (from 11 to 21 percent). As with the statewide trend, Hispanic admissions declined from 2000 to 2003 (27 to 24 percent), but increased to 29 and 33 percent, respectively, in 2004 and 2005.

In Colorado and the Denver area, marijuana users are typically the youngest of the treatment admissions groups. The average age in 2005 was 23.5 (median=21) statewide and 22.4 (median=19) in Denver. For both the State and Denver area, there appeared to be slight upward trends in the age of treatment admissions. From 2000 to 2005, the median age increased from 18 to 21 statewide and from 17 to 19 in the Denver area, which may be reflective of an aging cohort in treatment.

Marijuana users not only tend to be the youngest of drug-using groups but also to start using at the youngest age. In 2005, the mean and median ages of onset statewide were both 14.0, and, for the Denver area were 13.8 and 14.0, respectively (exhibit 6). Since 2000, age of onset remained stable statewide and for Denver-area admissions.

Statewide in 2005, 19 percent of marijuana users had been using less than 3 years (exhibit 6), a slight decrease from 25 percent in 2003. In the Denver area, the proportion of new users in treatment decreased from 28 to 21 percent from 2003 to 2005.

In 2005, the mean time to enter treatment was 8.2 years statewide and 7.5 years for Denver-area admissions (exhibit 6). For the State as a whole and the Denver area, both the mean and median times to enter treatment increased about 1½ years since 2000.

In the 2005 reporting period, first-timers represented 52 percent of treatment admissions statewide and in

the Denver area (exhibit 6), a decline from 60 percent since 2000 statewide and 2001 in the Denver area.

Treatment data, overall, show that marijuana users most often use alcohol as a secondary drug (exhibits 4 and 5), followed by cocaine.

In 2005, there were 1,124 unweighted ED marijuana reports according to *DAWN Live!*; these accounted for 20 percent of the illicit drug reports (exhibit 7).

The rate of marijuana-related hospital discharges increased steadily from 1999 (53 per 100,000) to 2005 (84 per 100,000) (exhibit 8).

From 2002 through 2004, the number of Denver-area marijuana poison control center calls declined from 37 to 29. There were 68 marijuana calls statewide in 2004 and 78 in 2005 (exhibit 9).

### Other Drugs

This section covers five categories of drugs: other depressants (including barbiturates, benzodiazepines, tranquilizers, and other sedatives/hypnotics); stimulants and amphetamines other than cocaine, and, in some data sources, methamphetamine; club drugs; hallucinogens; and other drugs (over-the-counter drugs, inhalants, steroids, and other nonspecified drugs). The combination of all five categories represented 1 percent of treatment admissions statewide and in the Denver metropolitan area in 2005.

During 2005, there were 24,418 treatment admissions in Colorado, including 87 admissions for other depressants, 55 for “other” stimulants, 46 for club drugs, 26 for hallucinogens, and 84 for other drugs. The small numbers preclude examining demographic trends. However, the proportion of treatment admissions decreased slightly since 2000 for all categories except club drugs. The proportion of club drugs, which were not tracked until 2002, remained stable at around two-tenths of 1 percent.

In 2005, there were 82 unweighted ED reports for methylenedioxymethamphetamine (MDMA) (exhibit 7), 12 for gamma hydroxybutyrate (GHB), 20 for lysergic acid diethylamide (LSD), 12 for phencyclidine (PCP), 49 for miscellaneous hallucinogens, 51 for inhalants, and 17 for combinations not specified.

In 2005, there were 776 hospital discharges related to depressants, 2,911 involving stimulants/amphetamines (this category excludes cocaine but includes methamphetamine and psycho-stimulants, which are most likely club drugs), and 80 related to hallucinogens. While the hospital discharge rate per 100,000 popula-

tion for the general stimulants/amphetamines category increased dramatically since 1999 (see exhibit 8), cases involving methamphetamine and club drugs cannot be isolated for analysis. The trend for discharges involving depressants cannot be assessed because this information was not available until 2004.

Poison control center calls for “other drugs” were reported for stimulants/amphetamines (excluding cocaine and methamphetamine) and club drugs. There were three stimulant/amphetamine-related calls in Denver in 2001 and 2002 and six in 2003 (exhibit 9). In 2004, the number of calls for this category was 4 for Denver and 316 statewide. Club drug calls for the city of Denver increased from 30 in 2001 to 55 in 2002 and then decreased to 40 in 2003. There was a discrepancy in the 2004 Denver and statewide numbers of club drug calls. In the June 2005 CEWG report, 39 club drug calls were reported for Denver, but only 11 such calls statewide were reported. When

looking at the categories for GHB and hallucinogenic amphetamine (MDMA), there were 43 calls reported statewide in 2004 and 49 calls statewide in 2005.

**INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

Of the 8,393 AIDS cases reported in Colorado through December 31, 2005, 9.2 percent were classified as injection drug users (IDUs), and another 10.8 percent were classified as homosexual or bisexual males and IDUs (exhibit 13). The proportions of newly diagnosed HIV and AIDS cases attributed to injection drug use has stayed fairly stable since 2001 (exhibits 14 and 15).

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**Exhibit 1. DAWN Emergency Department Sample and Reporting Information: January–December 2005**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)		No. of EDs Not Reporting
			90–100%	< 90%	
14	14	14	7	0–1	6–7

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore these data are subject to change.

SOURCE: DAWN *Live!* OAS, SAMHSA, updated 5/02/06

**Exhibit 2. Numbers and Percentages of Treatment Admissions by Primary Drug Type in Colorado: 2000–2005**

<b>Drug</b>		<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>Total</b>
Alcohol	<i>n</i>	6,583	6,320	6,859	7,234	9,764	9,478	46,238
	%	40.5	38.6	38.8	37.8	40.7	38.8	39.2
Marijuana	<i>n</i>	4,138	4,253	4,351	4,209	5,263	5,196	27,410
	%	25.4	26.0	24.6	22.0	21.9	21.3	23.2
	(excluding alcohol) %	42.8	42.3	40.2	35.3	36.9	34.7	38.2
Methamphetamine	<i>n</i>	1,314	1,662	2,071	2,778	3,799	4,645	16,269
	%	8.1	10.1	11.7	14.5	15.8	19.0	13.8
	(excluding alcohol) %	13.6	16.5	19.1	23.3	26.7	31.1	22.7
Cocaine	<i>n</i>	1,917	1,889	2,197	2,353	2,982	2,754	14,093
	%	11.8	11.5	12.4	12.3	12.4	11.3	12.0
	(excluding alcohol) %	19.8	18.8	20.3	19.8	20.9	18.4	19.7
Heroin	<i>n</i>	1,576	1,480	1,420	1,669	1,269	1,365	8,779
	%	9.7	9.0	8.0	8.7	5.3	5.6	7.4
	(excluding alcohol) %	16.3	14.7	13.1	14.0	8.9	9.1	12.2
Other Opiates <sup>1</sup>	<i>n</i>	321	395	412	545	613	682	2,868
	%	2.0	2.5	2.3	2.9	2.6	2.8	2.4
	(excluding alcohol) %	3.3	3.9	3.8	4.6	4.3	4.6	4.0
Depressants <sup>2</sup>	<i>n</i>	66	64	158	130	100	87	605
	%	0.4	0.4	0.9	0.7	0.4	0.4	0.5
	(excluding alcohol) %	0.7	0.6	1.5	1.1	0.7	0.6	0.8
Other Amphetamines/ Stimulants	<i>n</i>	108	91	104	78	55	55	491
	%	0.7	0.6	0.6	0.4	0.2	0.2	0.4
	(excluding alcohol) %	1.1	0.9	1.0	0.7	0.4	0.4	0.7
Hallucinogens <sup>3</sup>	<i>n</i>	77	73	43	31	27	26	277
	%	0.5	0.4	0.2	0.2	0.2	0.1	0.2
	(excluding alcohol) %	0.8	0.7	0.4	0.3	0.2	0.2	0.4
Club Drugs <sup>4</sup>	<i>n</i>	NA	NA	12	37	56	46	151
	%	NA	NA	0.1	0.2	0.2	0.2	0.1
	(excluding alcohol) %	NA	NA	0.1	0.3	0.4	0.3	0.2
Other <sup>5</sup>	<i>n</i>	149	151	58	74	85	84	601
	%	0.9	0.9	0.3	0.4	0.3	0.3	0.5
	(excluding alcohol) %	1.5	1.5	0.5	0.6	0.6	0.6	0.8
<b>Total</b>	<b><i>N</i></b>	<b>16,250</b>	<b>16,378</b>	<b>17,685</b>	<b>19,138</b>	<b>24,013</b>	<b>24,418</b>	<b>117,882</b>
<b>(excluding alcohol)</b>	<b><i>N</i></b>	<b>9,667</b>	<b>10,058</b>	<b>10,826</b>	<b>11,904</b>	<b>14,249</b>	<b>14,940</b>	<b>71,644</b>

<sup>1</sup>Includes nonprescription methadone and other opiates and synthetic opiates.

<sup>2</sup>Includes barbiturates, benzodiazepine tranquilizers, clonazepam, and other sedatives.

<sup>3</sup>Includes LSD, PCP, and other hallucinogens.

<sup>4</sup>Includes Rohypnol, ketamine (Special K), GHB, and MDMA (ecstasy).

<sup>5</sup>Includes inhalants, over-the-counter, and other drugs not specified.

SOURCE: Drug/Alcohol Coordinated Data System, Alcohol and Drug Abuse Division, Colorado Department of Human Services

**Exhibit 3. Numbers and Percentages of Treatment Admissions by Primary Drug Type in the Denver/Boulder Metropolitan Area: 2000–2005**

<b>Drug</b>		<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>Total</b>
Alcohol	<i>n</i>	2,253	2,493	1,987	2,352	3,485	3,369	15,939
	%	33.8	33.4	31.8	29.0	33.5	33.1	32.5
Marijuana	<i>n</i>	1,545	1,852	1,457	1,855	2,677	2,521	11,907
	%	23.1	24.8	23.3	22.9	25.7	24.7	24.3
	<i>(excluding alcohol)</i> %	34.9	37.2	34.2	32.3	38.7	37.0	36.0
Methamphetamine	<i>n</i>	380	564	515	945	1,252	1,413	5,069
	%	5.7	7.6	8.3	11.7	12.0	13.9	10.3
	<i>(excluding alcohol)</i> %	8.6	11.3	12.1	16.4	18.1	20.7	15.3
Cocaine	<i>n</i>	979	1,028	946	1,256	1,578	1,363	7,150
	%	14.7	14.4	15.2	15.5	15.2	13.4	14.6
	<i>(excluding alcohol)</i> %	22.1	20.7	22.2	21.9	22.8	20.0	21.6
Heroin	<i>n</i>	1,223	1,176	978	1,225	919	965	6,486
	%	18.3	15.7	15.7	15.1	8.8	9.5	13.2
	<i>(excluding alcohol)</i> %	27.6	23.6	23.0	21.3	13.3	14.1	19.6
Other Opiates	<i>n</i>	184	238	208	300	340	419	1,689
	%	2.8	3.2	3.3	3.7	3.3	4.1	3.4
	<i>(excluding alcohol)</i> %	4.2	4.8	4.9	5.2	4.9	6.1	5.1
Depressants <sup>1</sup>	<i>n</i>	31	32	78	55	47	43	286
	%	0.5	0.4	1.2	0.7	0.5	0.4	0.6
	<i>(excluding alcohol)</i> %	0.7	0.6	1.8	1.0	0.7	0.7	0.9
Other Amphetamines/ Stimulants	<i>n</i>	23	25	33	31	24	21	157
	%	0.3	0.3	0.5	0.4	0.2	0.2	0.3
	<i>(excluding alcohol)</i> %	0.5	0.5	0.8	0.5	0.3	0.3	0.5
Hallucinogens <sup>3</sup>	<i>n</i>	32	31	15	18	16	14	126
	%	0.5	0.4	0.2	0.2	0.2	0.1	0.3
	<i>(excluding alcohol)</i> %	0.7	0.6	0.4	0.3	0.2	0.2	0.4
Club Drugs <sup>4</sup>	<i>n</i>	NA	NA	5	22	29	20	76
	%	NA	NA	0.1	0.3	0.3	0.2	0.2
	<i>(excluding alcohol)</i> %	NA	NA	0.1	0.4	0.4	0.3	0.2
Other <sup>5</sup>	<i>n</i>	25	29	19	38	40	38	189
	%	0.4	0.4	0.3	0.5	0.4	0.4	0.4
	<i>(excluding alcohol)</i> %	0.6	0.6	0.4	0.7	0.6	0.6	0.6
<b>Total</b>	<b>N</b>	<b>6,675</b>	<b>7,468</b>	<b>6,241</b>	<b>8,097</b>	<b>10,407</b>	<b>10,186</b>	<b>49,074</b>
	<b><i>(excluding alcohol)</i> N</b>	<b>4,422</b>	<b>4,975</b>	<b>4,254</b>	<b>5,745</b>	<b>6,922</b>	<b>6,817</b>	<b>33,135</b>

<sup>1</sup>Includes nonprescription methadone and other opiates and synthetic opiates.

<sup>2</sup>Includes barbiturates, benzodiazepine tranquilizers, clonazepam, and other sedatives.

<sup>3</sup>Includes LSD, PCP, and other hallucinogens.

<sup>4</sup>Includes Rohypnol, ketamine (Special K), GHB, and MDMA (ecstasy).

<sup>5</sup>Includes inhalants, over-the-counter, and other drugs not specified.

SOURCE: Drug/Alcohol Coordinated Data System, Alcohol and Drug Abuse Division, Colorado Department of Human Services

**Exhibit 4. Demographic Characteristics of Clients Admitted to Treatment in the State of Colorado, by Drug and Percent: January–December 2005**

Characteristics	Alcohol (Only or in Combo)	Cocaine	Heroin	Other Opiates	Marijuana	Metham- phetamine	(Other) Stimulants <sup>1</sup>	All Other
<b>Total (N=24,418)</b>	<b>(9,478)</b>	<b>(2,754)</b>	<b>(1,365)</b>	<b>(682)</b>	<b>(5,196)</b>	<b>(4,645)</b>	<b>(55)</b>	<b>(243)</b>
Gender								
Male	72	59	66	51	76	53	70	63
Female	28	41	34	49	24	47	30	37
Race/Ethnicity								
White	67	42	65	86	51	81	67	72
African-American	5	19	8	3	14	1	4	8
Hispanic	23	35	24	9	30	14	29	17
Other	5	3	3	3	5	3	0	3
Age at Admission								
17 and younger	5	2	0.4	1	36	4.5	4	9
18–24	18	15	13	12	30	27	13	21
25–34	25	31	29	30	21	38	38	32
35–44	29	35	25	27	10	23	29	22
45–54	18	14	24	22	3.5	7	11	11
55 and older	5	2	9	6	0.5	0.4	5	5
Route of Administration								
Smoking	0	62	9	1	94	65	25	16
Sniffing	2	31	6	7	4	12	14	10
Intravenous	0	6	84	8	0	21	18	4
Other/multiple	98	1	1	84	2	2	42	70
Secondary Drug	Marijuana 25	Alcohol 33	Cocaine 34	Alcohol 12	Alcohol 421	Marijuana 35	Marijuana 26	Alcohol 17
Tertiary Drug	Cocaine 5	Alcohol 13	Marijuana 8	Alcohol 6	Alcohol 9	Alcohol 17	Alcohol 11	Alc./Marij. Each 10

<sup>1</sup>Includes other stimulants (e.g., Ritalin) and amphetamines (e.g., Benzedrine, Dexadrine, Desoxyn).

SOURCE: Drug/Alcohol Coordinated Data System, Alcohol and Drug Abuse Division, Colorado Department of Human Services



**Exhibit 5. Demographic Characteristics of Clients Admitted to Treatment in the Denver/Boulder Metropolitan Area, by Drug and Percent: January–December 2005**

Characteristics	Alcohol (Only or in Combo)	Cocaine	Heroin	Other Opiates	Marijuana	Metham- phetamine	(Other) Stimulants <sup>1</sup>	All Other
<b>Total (N=10,186)</b>	<b>(3,369)</b>	<b>(1,363)</b>	<b>(965)</b>	<b>(419)</b>	<b>(2,521)</b>	<b>(1,413)</b>	<b>(21)</b>	<b>(115)</b>
Gender								
Male	70	60	66	51	78	57	67	69
Female	30	40	34	49	22	43	33	31
Race/Ethnicity								
White	66	41	61	86	42	82	67	68
African-American	7	24	10	4	21	2	10	16
Hispanic	22	32	26	7	33	13	24	12
Other	5	3	3	3	5	3	0	4
Age at Admission								
17 and younger	5	3	0.3	1	43	4	5	12
18–24	16	15	12	12	27	24	19	17
25–34	26	29	29	28	18	39	38	28
35–44	29	37	24	26	9	24	19	24
45–54	18	13	25	25	3	8	10	12
55 and older	5	2	9	7	0	0	10	7
Route of Administration								
Smoking	0	62	9	1	92	59	24	21
Sniffing	5	33	6	7	6	15	19	13
Intravenous	0	4	83	7	0.1	23	29	3
Other/multiple	95	1	1	85	1.6	3	29	64
Secondary Drug	Marijuana 25	Alcohol 35	Cocaine 33	Alcohol 11	Alcohol 41	Marijuana 30	Marijuana 35	Alcohol 20
Tertiary Drug	Cocaine 6	Alc./Marij. Each 12	Marijuana 6	Alcohol 4	Cocaine 8	Alcohol 13	Alcohol 19	Marijuana 13

<sup>1</sup>Includes other stimulants (e.g., Ritalin) and amphetamines (e.g., Benzedrine, Dexadrine, Desoxyn).

SOURCE: Drug/Alcohol Coordinated Data System, Alcohol and Drug Abuse Division, Colorado Department of Human Services

**Exhibit 6: Age of Onset, Years to Treatment, and Proportions of New Users (< 3 Years) and New to Treatment (Tx) Admissions for Colorado and the Denver Area: January–December 2005**

Area		Cocaine	Heroin	Other Opiates	Methamphetamine	Marijuana
Statewide		(n=2,754)	(n=1,365)	(n=682)	(n=4,645)	(n=5,196)
Age at Onset	Mean	23.0	21.7	24.9	20.9	14.0
	Median	21	19	22	18	14
Years to 1st Tx	Mean	9.6	12.8	9.9	7.5	8.2
	Median	7	9	5.5	6	5
New Users	Percent	15	12	17	18	19
New to Tx	Percent	32	22	37	37	52
Denver Area		(n=1,363)	(n=965)	(n=419)	(n=1,413)	(n=2,521)
Age at Onset	Mean	22.8	21.8	24.6	20.9	13.8
	Median	21	19	21	18	14
Years to 1st Tx	Mean	9.7	13.6	10.9	7.6	7.5
	Median	8	9.5	6	6	5
New Users	Percent	15	12	17	16	21
New to Tx	Percent	33	23	39	33	52

SOURCE: Drug/Alcohol Coordinated Data System, Alcohol and Drug Abuse Division, Colorado Department of Human Services

**Exhibit 7. Numbers and Percentages of Reports in Drug-Related ED Visits<sup>1</sup> in Denver, by Drug Category (Unweighted<sup>2</sup>): January–December 2005**

Category/Drug	Number	Percent
Major Substances of Abuse (Incl. Alcohol and Illicit Drugs <sup>3</sup> ; n=8,601)		
Alcohol	3,001	31
Illicit Drugs (Excluding Alcohol; n=5,600)		
Cocaine	2,264	40
Heroin	667	12
Marijuana	1,124	20
Methamphetamine	986	18
Amphetamines	316	6
MDMA	82	2
Other <sup>4</sup>	161	3
Prescription Drugs		
Opiates/Opioids (excluding heroin)	1,110	N/A

<sup>1</sup>Misuse cases only, which exclude adverse reaction and accidental ingestion cases.

<sup>2</sup>Unweighted data from 7 Denver area hospital EDs reporting to DAWN. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change.

<sup>3</sup>There were 852 reports for “alcohol only” for patients younger than 22; these are excluded from the percentages for illicit drug reports.

<sup>4</sup>Includes GHB, ketamine, LSD, PCP, miscellaneous hallucinogens, inhalants, and other combinations not tabulated above.

SOURCE: DAWN Live!, OAS, SAMHSA, updated 5/02/06

**Exhibit 8. Numbers and Rates Per 100,000 Population of Colorado Drug-Related Hospital Discharge Reports for Selected Drugs: 1997–2005**

Drug		1997	1998	1999	2000	2001	2002	2003	2004	2005
Alcohol	(n)	NA <sup>1</sup>	17,154	18,577	18,744	20,644	21,433	23,750	24,889	25,077
	Rate		418	441	432	464	474	518	535	531
Stimulants	(n)	959	815	682	942	1,161	1,463	1,814	2,284	2,911
	Rate	24	20	16	22	26	32	40	49	62
Cocaine	(n)	2,245	2,492	2,517	2,732	2,787	3,305	3,658	4,174	4,259
	Rate	56	61	60	63	63	73	80	90	90
Marijuana	(n)	2,118	2,227	2,204	2,455	2,755	3,016	3,246	3,729	3,952
	Rate	53	54	52	57	62	67	71	80	84
Opiates	(n)	1,458	1,566	1,639	2,053	2,237	2,605	3,368	2,850	3,005
	Rate	36	38	39	47	50	58	73	61	64
Population		3,995,923	4,102,491	4,215,984	4,335,540	4,446,529	4,521,484	4,586,455	4,653,844	4,720,772

<sup>1</sup>NA=Not available.

SOURCE: Colorado Department of Public Health and Environment, Colorado Hospital Association

**Exhibit 9. Numbers of Drug-Related Calls<sup>1</sup> to the Rocky Mountain Poison & Drug Center in Denver and Colorado: 2001–2005**

Drug	Denver				Statewide	
	2001	2002	2003	2004	2004	2005
Alcohol	110	149	150	223	762	884
Cocaine/Crack	59	66	68	59	120	107
Heroin/Morphine	19	16	22	18	20	24
Marijuana	34	37	36	29	68	78
Methamphetamine	20	39	39	66	95	127
Other Stimulants/Amphetamines	3	3	6	4	316	(unknown)
Club Drugs	30	55	40	39	11	20
Inhalants	4	16	10	4	29	(unknown)

<sup>1</sup>Human exposure calls only.

SOURCE: Rocky Mountain Poison & Drug Center

**Exhibit 10. Federal Drug Seizures in Colorado: 2002–2005**

Drug	Quantity Seized			
	2002	2003	2004	2005
Cocaine	45.0 kilograms	65.5 kilograms	36.0 kilograms	131.5 kilograms
Heroin	0.0 kilograms	3.9 kilograms	4.6 kilograms	3.0 kilograms
Methamphetamine (Methamphetamine labs)	18.9 kilograms	14.8 kilograms	28.8 kilograms	34.4 kilograms
	483	345	228	145
Marijuana	43.5 kilograms	444.1 kilograms	774.6 kilograms	765.6
Ecstasy	NR <sup>1</sup>	1,128 tablets	0 tablets	0.6 kgs <sup>2</sup> /2,104du <sup>3</sup>

<sup>1</sup>NR=Data not reported.

<sup>2</sup>kgs=kilograms.

<sup>3</sup>du=dosage units.

SOURCE: U.S. Drug Enforcement Administration State Factsheets for Colorado 2003–2006

**Exhibit 11. Price and Purity of Selected Drugs in Denver: 2005**

Drug	Wholesale Price	Retail Price	Street Price	Percent Purity at Retail Level
Powder Cocaine	\$13,000–\$19,000 kg	\$300–\$900 oz	\$50–\$100 gm	50–60%
Crack Cocaine		\$659–\$900 oz	\$20 rock	75–85%
Heroin	\$30,000–\$37,500 kg (MBT <sup>1</sup> )	\$900–\$1,200 (MBT)	\$90–\$100 gm (MBT) \$20 bag (MBT)	6–73%
Methamphetamine	\$10,000–\$12,000 lb (Ice) \$6,000 lb (Powder)	\$1,000–\$1,200 oz (Ice) \$600 oz (Powder)	\$90–\$100 gm	14–50%(Mex) 70–90%(LP)
Marijuana	\$ 400–\$900 lb (Mex <sup>2</sup> ) \$3,000–\$5,000 lb (Domestic) \$4,000 (LP or Sinsemilla) \$4,500 lb (BC Bud)	\$ 60–\$100 oz (Mex) \$250–\$600 (Domestic) \$300–\$400 oz (LP <sup>3</sup> )	\$1 joint or \$5 bag (Mex) \$25–\$30 ¼ oz. (Mex)	–
Ecstasy	–	–	\$6–\$25/pill	–
OxyContin	–	–	\$5–\$10/pill	Prescription

<sup>1</sup>MBT=Mexican Black Tar.

<sup>2</sup>Mex=Mexican.

<sup>3</sup>LP=Locally produced.

SOURCE: DEA, National Drug Intelligence Center, local law enforcement

**Exhibit 12. Sexual Risk and Methamphetamine (MA) Use in Denver MSM: 2004**

Selected Characteristics	MA Users n=108	Nonusers n=873	Odds Ratio
Mean age	33.1	39.4	
Mean number of male/female partners last 12 months	12.5 / 5.0	7.7 / 2.3	
Percent that had any unprotected sex last 12 months	76 (70.4%)	380 (43.5%)	3.1 (2.0-4.8)
Percent that ever tested for HIV	101 (93.5%)	815 (93.4%)	
Percent with positive result on most recent HIV test	32 (31.7%)	121 (14.9%)	2.7 (1.7-4.2)

SOURCE: Dr. Mark Thrun, Denver Public Health 2004-2005 National HIV Behavioral Surveillance (NHBS) Survey

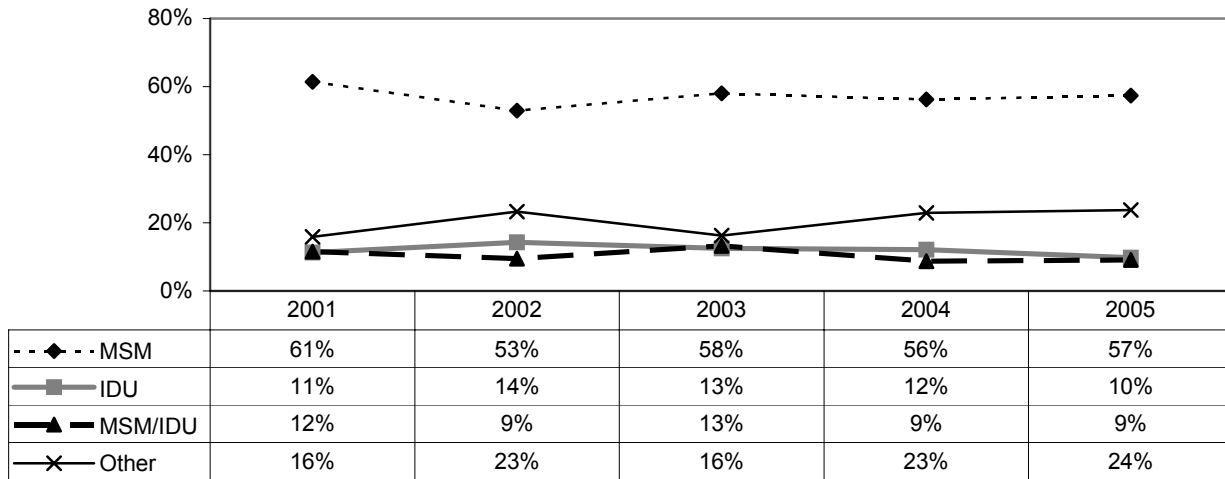
**Exhibit 13. Colorado AIDS Cases by Gender and Exposure Category: Cumulative Through 12/31/05**

Gender/Exposure Category	AIDSCases <sup>1</sup>		Individuals Testing Positive for HIV	
	Number	Percent	Number	Percent
Gender				
Male	7,709	92.0	5,424	89.8
Female	684	8.0	615	10.2
Total	8,393	100.0	6,039	100.0
Exposure Category				
Men who have sex with men (MSM)	5,617	66.9	3,834	63.5
Injection drug user (IDU)	776	9.2	522	8.6
MSM and IDU	906	10.8	545	9.0
Heterosexual contact	531	6.3	416	6.9
Other	180	2.2	62	1.1
Risk not identified	383	4.6	660	10.9

<sup>1</sup>In October 2004, Colorado omitted cases who moved to other States, thereby reducing their HIV/AIDS database by 758 cases. Thus, reports produced before October 2004 show higher numbers of cases than reports produced after October, 2004.

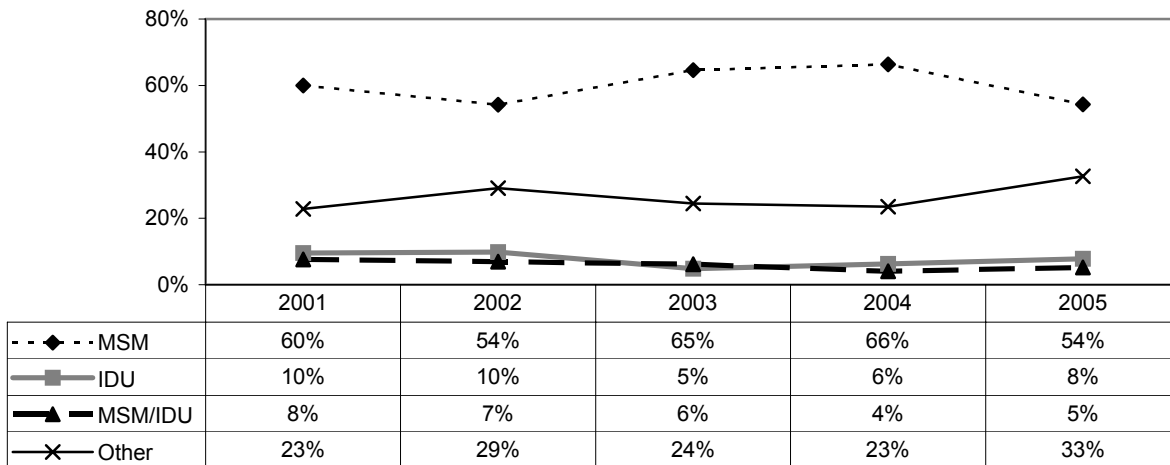
SOURCE: Colorado Department of Public Health and Environment

**Exhibit 14. Percentage of New AIDS Cases in Colorado, by Exposure and Year: 2001–2005**



SOURCE: Colorado Department of Public Health and Environment

**Exhibit 15. Percentage of New HIV Cases in Colorado, by Exposure and Year: 2001–2005**



SOURCE: Colorado Department of Public Health and Environment

# Drug Abuse in Detroit, Wayne County, and Michigan

Cynthia L. Arfken, Ph.D.<sup>1</sup>

## ABSTRACT

*Cocaine and heroin are the two major drugs of abuse in the area, but marijuana is the most widespread. Cocaine treatment admissions stabilized; cocaine accounts for a high percentage of ED drug reports, ME reports, and number of items reviewed by forensic laboratories. In the first half of FY 2006, heroin treatment admissions, especially as the primary substance of abuse, stabilized; however, there were few heroin items reviewed by forensic laboratories. Indicators for methamphetamine remain low. Ecstasy use may be increasing; there were 15 treatment admissions and 14 cases of MDMA among ME cases. The lethal combination of heroin or cocaine and fentanyl, which appeared in Detroit and northern Michigan during the second half of 2005, continues to kill people. Outreach efforts were implemented to get information to people on the streets about this new threat.*

## INTRODUCTION

### Area Description

Detroit and surrounding Wayne County are located in the southeast corner of Michigan's Lower Peninsula. In 2000, the Wayne County population totaled 2.1 million residents (of whom 46 percent live in Detroit) and represented 21 percent of Michigan's 9.9 million population.

Currently, Michigan is the eighth most populous State in the Nation. In 2000, Detroit ranked 10th in population among cities (with 951,000 people), but the population has since dropped below 900,000. It has the highest percentage of African-Americans (82 percent) of any major city in the country. The following factors contribute to probabilities of substance abuse in the State:

- Michigan has a major international airport, with a new terminal that opened 2002; 10 other large airports that also have international flights; and 235 public and private small airports. Long-term projections for the Detroit Metropolitan Airport forecast a 31-percent increase in flights during the next 10 years.

<sup>1</sup>The author is affiliated with Wayne State University, Detroit, Michigan.

- The State has an international border of 700 miles with Ontario, Canada; land crossings at Detroit (bridge and a tunnel), Port Huron, and Sault Ste. Marie; and water crossings through three Great Lakes and the St. Lawrence Seaway, which connects to the Atlantic Ocean. Many places along the 85 miles of heavily developed waterway between Port Huron and Monroe County are less than one-half mile from Canada. Michigan has more than 1 million registered boats. In 2004, three major bridge crossings from Canada (Windsor Tunnel, Ambassador Bridge, and Port Huron) had 21.2 million vehicles cross into Michigan. Southeast Michigan is the busiest port on the northern U.S. border with Canada. Detroit and Port Huron also have nearly 10,000 trains entering from Canada each year.

Additional factors influence substance use in Detroit:

- The percentage of individuals living below the poverty line in 2000 (26.1 percent) was more than twice the national level (12.4 percent). The percentage has increased dramatically with the economic downturn.
- The percentage of working age individuals (age 21–64) with a disability is substantially higher than the national level (32.1 versus 19.2 percent).
- There are chronic structural unemployment problems. At the State level, the unemployment rate has been among the highest in the country since 2002, with no housing appreciation boom. Within the State, Detroit has one of the lowest rates of employed adults. Detroit's labor force has dropped by 42 percent since 1975, while the number of people unemployed has more than doubled since 2000. Detroit's unemployment rate is more than double that of surrounding suburban areas.

### Data Sources

Data for this report were drawn from the sources shown below:

- **Emergency department (ED) data** were derived for 2005 from the Drug Abuse Warning Network (DAWN) *Live!* restricted-access online query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Eligible hospitals in the Detroit area totaled 39; hospitals in the DAWN sample numbered 28, with the number of EDs in the sample totaling 29. (Some hospitals have more than one emergency department.) Dur-

ing this 12-month period, between 19 and 22 EDs reported data each month. The completeness of data reported by participating EDs did not vary much by month (exhibit 1). Exhibits in this paper reflect cases that were received by DAWN as of April 17–18, 2006. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, the data presented in this paper are subject to change. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. Drug reports exceed the number of ED visits, since a patient may report use of multiple drugs (up to six drugs and alcohol). The DAWN *Live!* data are unweighted and, thus, are not estimates for the reporting area. These data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found at the DAWN Web site at <<http://dawninfo.samhsa.gov>>.

- **Treatment admissions data** for the first half of fiscal year (FY) 2006 were provided by the Bureau of Substance Abuse and Addiction Services, Division of Substance Abuse and Gambling Services, Michigan Department of Community Health (MDCH), for the city of Detroit for those persons whose treatment was covered by Medicaid or Block Grant funds. The data do not include admissions funded by the Department of Corrections. The city of Detroit uses a “Treatment on Demand” approach without a wait list (unless the client is seeking a specific provider). MDCH, following revised Treatment Episode Data Set (TEDS) Federal guidelines, is converting to an episode-based reporting system in which changes in levels of care that are part of the treatment plan (moving from residential treatment to outpatient, for example) are not reported as new separate admissions but rather as transfers within an episode. This transition has not been fully implemented by all publicly funded programs. As this change is fully implemented, it is expected that total admissions will decline, and comparisons of admissions trends before and after this change are not recommended. Treatment data in this report are limited to admissions in which treatment is the only indicator source for a particular drug or group of drugs.
- **Mortality data** were provided by the Wayne County Office of the Medical Examiner (ME). The Wayne County ME provided summary data on deaths with positive drug toxicology for 2005. These drug tests are mostly routine when the de-

cedent had a known drug use history, was younger than 50, died of natural causes or homicide, was a motor vehicle accident victim, or there was no other clear cause of death. In addition, the ME provided summaries on the numbers of deaths attributed to drug abuse from 1998 to 2005.

- **Heroin purity and price data** were provided by the Drug Enforcement Administration (DEA). Data on heroin purity from 2002 to 2004 were from the DEA’s Domestic Monitor Program (DMP).
- **Drug intelligence data** were provided by the DEA, Michigan State Police, and the National Drug Intelligence Center.
- **Drug distribution data** were provided by the High Intensity Drug Trafficking Area, Investigative Support and Deconfliction Center, of Southeast Michigan (HIDTA-SEM). Nine counties (not all in southeast Michigan) now cooperate in HIDTA-SEM.
- **Data on drug content** among drug seizures were provided by the National Forensic Laboratory Information System (NFLIS) for 2004 and 2005.
- **Information on the number of prescriptions** filled in 2003–2004 was obtained from a special report by the Michigan Board of Pharmacists, 2004.
- **Poison control case data** from contact data on cases of intentional abuse of substances from October 2005 through March 2006 were provided by the Children’s Hospital of Michigan Poison Control Center in Detroit. This center is one of two in Michigan; its catchment area is eastern Michigan.
- **Drug-related infectious disease data** were provided by the MDCH on the acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) prevalence estimates as of April 1, 2006.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

For the first half of FY 2006, 31.8 percent of Detroit publicly funded treatment admissions listed cocaine/crack as the primary drug of abuse (exhibit 2). An additional 10.3 percent of treatment admissions listed cocaine/crack as the secondary drug. Clients

seeking treatment for crack cocaine were more likely to be male (59.7 percent) and African-American (93.3 percent), with a mean age of 42.2.

Cocaine constituted 45.4 percent of drug items reviewed by forensic laboratories in 2005 (exhibit 3).

According to unweighted DAWN *Live!* data, cocaine was the most frequent major substance of abuse reported in DAWN ED data in the metropolitan Detroit area between January and December 2005. The number of metropolitan Detroit ED cocaine reports was 6,324, representing 35.4 percent of the total reports (including alcohol reports). Patients reporting cocaine were most likely to be male (62.0 percent), African-American (70.6 percent), and age 35–54 (68.5 percent).

Cocaine was detected in 325 deaths during 2005 in Wayne County.

According to intelligence reports, crack cocaine is found in the city of Detroit, while powder cocaine is more likely found elsewhere in the State. Prices are stable and low.

### Heroin

In the first half of FY 2006, 29.1 percent of Detroit publicly funded treatment admissions listed heroin as the primary drug of abuse (exhibit 2). An additional 1.2 percent of treatment admissions listed heroin as the secondary drug. Clients seeking treatment for heroin were likely to be male (60.1 percent) and African-American (89.6 percent), with a mean age of 47.9.

Only 12.8 percent of drug items reviewed by forensic laboratories were found to be heroin in FY 2005 (exhibit 3).

According to DAWN *Live!* unweighted data, 16.5 percent of ED reports for major substances of abuse (including alcohol) in the metropolitan Detroit area were for heroin. Patients reporting heroin were most likely to be male (60.7 percent), African-American (59.1 percent), and between the ages of 35 and 54 (64.7 percent).

Heroin was detected in 221 deaths during 2005 in Wayne County.

Heroin street prices remained stable and relatively low in Detroit. Nearly all heroin continues to be white in color, but Mexican black and brown heroin can be found. A wide range of purity can also be found, but it averages 38.9 percent for South American heroin. South America remains the dominant

source, although heroin originating in Southwest Asia has been identified (exhibit 4).

### Other Opiates/Narcotic Analgesics

Other opiates represented 1.5 percent of primary treatment admissions in Detroit (exhibit 2). The percentage of statewide treatment admissions listing other opiates as the primary drug of abuse increased from 1.2 percent in 1994 to 4.0 percent in 2003.

According to the number of prescriptions filled in 2002 and 2003, oxycodone products were the most common Schedule II drugs; they represented 38 percent of all opioid prescriptions in 2002 and 34 percent in 2003. Prescriptions for fentanyl products, however, increased by 95 percent between 2002 and 2003 to represent 25 percent of the opioid prescriptions being filled in 2003. From 2003 to 2004, the percentage of prescriptions filled for Schedule II medications increased by 15.8 percent to 2,038,628. The percentage of prescriptions filled for Schedule III medications increased by 11.6 percent to 5,291,229, and the increase for Schedule IV medications was 9.4 percent. Only for Schedule V medications was there a drop in the growth of prescriptions filled (-2.2 percent). The rate of growth for oxycodone products slowed from 62.6 percent (2002 to 2003) to 10.6 percent for the period 2003 to 2004. The largest growth between 2003 and 2004 occurred for fentanyl lozenge products (298.5 percent) (exhibit 5).

Toxicology findings from the Wayne County ME laboratory showed 63 decedents with fentanyl positivity. This number greatly accelerated during late 2005 and then again in spring 2006. The surge was noted in news media and resulted in outreach efforts to warn and educate drug users of the threat of fentanyl-laced heroin or cocaine. Work groups also formed to address the threat.

There were 223 cases of codeine positivity between January and October 2005. This number is similar in magnitude compared with the 241 cases in 2002 and 232 in 2003. For oxycodone/combinations, there was a gradual increase, with 22 deaths during this 2005 time period (year-end projection of 26), compared with 10 in 2000, 13 in 2001, 12 in 2002, and 19 in 2003. For hydrocodone/combinations, there was also a gradual increase, with 103 deaths in January–October 2005 (year-end projection of 124), compared with 60 in 2000, 80 in 2001, 120 in 2002, and 108 in 2003. Methadone was found in 65 decedents during January–September 2005.

Information from the Children’s Hospital of Michigan Poison Control Center (covering primarily east-



ern lower Michigan) on intentional abuse cases reported seven cases for codeine in Wayne County in January–September 2005, compared with nine cases during the same months for 2004. For oxycodone/combinations, there were five cases in the 2005 months, compared with four cases during the same months for 2004. For hydrocodone/combinations, there were 32 cases during January–September 2005, compared with 22 cases during the same months for 2004.

According to unweighted DAWN *Live!* data, metropolitan Detroit-area ED hydrocodone/combinations represented 674 reports from overmedication, seeking detoxification, or “other” in 2005. In contrast, there were 164 reports of oxycodone/combinations. Other medications in the DAWN data included codeine with 187 reports, methadone with 272 reports, and fentanyl with 103 reports.

According to intelligence reports, other opiates are common and viewed as a gateway to heroin, especially if obtaining prescription opiates becomes difficult. Because of difficulty in prosecuting diversion cases, the DEA is the sole agency investigating these cases.

### **Marijuana**

Marijuana indicators remain mostly stable but at highly elevated levels. Domestic, Canadian, and Mexican marijuana remain widely available.

Marijuana accounted for 14.3 percent of all publicly funded substance abuse treatment admissions (including alcohol) in the first half of FY 2006 in Detroit (exhibit 2). Clients seeking treatment for marijuana were likely to be male (72.2 percent), African-American (94.1 percent), and have criminal justice involvement (60.6 percent), with a mean age of 25.6.

According to unweighted DAWN *Live!* data for 2005, metropolitan Detroit-area ED marijuana reports represented 16.3 percent of major drug reports including alcohol. Patients reporting marijuana were most likely to be male (60.0 percent), African-American (65.6 percent), and, although younger than cocaine or heroin users, between the ages of 35 and 54 (37.7 percent).

Marijuana was found in 41.3 percent of drug items reviewed by forensic laboratories in 2005 (exhibit 3). Many law enforcement agencies (42 percent) in 2003 indicated that marijuana is the greatest threat to the State.

### **Stimulants**

The latest treatment data show that admissions for primary drugs of abuse for stimulants other than cocaine included no admissions for amphetamines and no admissions for methamphetamine in Detroit in the first half of FY 2006. Unweighted DAWN *Live!* ED data for 2005 show 165 reports of amphetamines and 30 for methamphetamine.

Only six drug items reviewed by forensic laboratories were found to be methamphetamine in 2005 (exhibit 3).

Michigan’s border with Canada has been the focus of efforts to stop the flow of large amounts of pseudoephedrine and ephedrine into the United States. These imports are the necessary ingredients for making methamphetamine and have been destined for the western United States and Mexico. Indictments of numerous individuals and seizures of millions of pseudoephedrine dosage units have continued.

### **Club Drugs**

The club drugs category includes methylenedioxy-methamphetamine (MDMA or ecstasy), gamma hydroxybutyrate (GHB), flunitrazepam (Rohypnol), and ketamine. Indicators may be increasing for ecstasy but stabilizing for ketamine and declining for GHB. There were 15 admissions for ecstasy and 1 for ketamine during the first half of FY 2006.

Unweighted DAWN *Live!* ED data for 2005 show 200 reports of MDMA.

Toxicology findings from the Wayne County ME laboratory showed 14 cases of MDMA during 2005 and 1 for ketamine.

### **INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

Michigan continues to rank 17th among all States, with an AIDS case rate of 163 per 100,000 population. As of April 1, 2006, a cumulative total of 16,200 cases of AIDS had been reported in Michigan. Of the people currently living with AIDS or HIV, 40 percent live in the city of Detroit.

Injection drug users (IDUs) account for 19 percent of people living with AIDS; 14 percent have only this risk factor (11 percent in October 1, 2005), and 5 percent are IDUs who also have male-to-male sex as a risk factor.

Of the 9,349 men currently living with AIDS or HIV, 16 percent are IDUs, and 6 percent are in the dual risk group.

40 percent were infected through heterosexual contact, and 34 percent have undetermined risk factors.

Among the 2,833 women currently living with AIDS or HIV, 22 percent are IDUs (24 percent among Black women and 19 percent among White women),

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**Exhibit 1. Detroit DAWN ED Sample and Reporting Information: 2005**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
39	28	29	15–21	0–2	0–1	7–10

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change.

SOURCE: DAWN *Live!*, OAS, SAMHSA, updated 4/17–4/18, 2006

**Exhibit 2. Treatment Admissions in Detroit, by Primary and Secondary Drugs of Abuse and Percent: First Half FY 2006**

Drug	Primary Drug of Abuse	Secondary Drug of Abuse
Alcohol	23.5	14.4
Heroin	29.1	1.2
Cocaine	31.8	10.3
Other Opiates	1.5	0.2
Marijuana	14.3	6.7
Other Drugs	0.2	0.4

N=3,695.

SOURCE: Michigan Department of Community Health, Division of Substance Abuse and Gambling Services, Bureau of Substance Abuse and Addiction Services

**Exhibit 3. Numbers and Percentages of Seized Drug Items Analyzed in Detroit: 2005**

Substance	Number of Items Seized	Percent of Items Seized
Cocaine	1,831	45.4
Cannabis	1,665	41.3
Heroin	516	12.8
Codeine	9	0.2
Methamphetamine	6	0.2
<b>Total Items Reported</b>	<b>4,033</b>	

SOURCE: NFLIS

**Exhibit 4. Purity and Price of Heroin in Detroit: 2004**

Type of Heroin	Sample Numbers	Price Per Milligram	Purity
South America	21	0.86	38.9
Southwest Asian	8	0.85	47.3

SOURCE: DMP, DEA

**Exhibit 5. Numbers of Drug Prescriptions for Opioids in Michigan and Percent Change: 2003–2004**

Drug	2003	2004	Percent Change
Fentanyl Lozenge	1,292	5,149	298.5
Methadone	79,845	110,328	38.2
Oxycodone Products	223,838	247,531	10.6
Fentanyl Patch	218,558	264,092	20.8
Hydrocodone Products	3,174,922	3,686,073	16.2

SOURCE: Michigan Board of Pharmacists

# Illicit Drug Use in Honolulu and the State of Hawai'i

D. William Wood, M.P.H., Ph.D.<sup>1</sup>

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## ABSTRACT

*This report represents the year 2005 report on illicit drug use in Honolulu. During this year, there was a 31-percent increase in Medical Examiner reports for decedents positive for methamphetamine; a minimal increase in treatment admissions for primary methamphetamine drug admissions; a 10-percent increase in methamphetamine cases reported by the Honolulu Police Department; a 75-percent increase in positive decedent presence of other opiates; seizures of 81,966 grams of dried marijuana (6,814 plants); an 18.6-percent increase in treatment admissions for marijuana; and a 10.7-percent increase in alcohol-related deaths. Data from NFLIS show great stability in the four drugs most often collected and analyzed over the past 4 years. Numbers and risks for AIDS data are also presented. As these major increases in drug activity were being reported, the State was undergoing a major fiscal recovery. Unemployment was nearly nonexistent, at 3 percent. As of December 2005, Caucasians represented nearly two-fifths of the population.*

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## INTRODUCTION

This report presents current information on illicit drug use in Hawai'i, based on the Honolulu Community Epidemiology Work Group (CEWG), described later in this section.

### Area Description

The year 2005 has been a remarkable one in the 50th State. The Aloha State, having slipped into a fairly major economic slump after the September 11, 2001, events on the mainland, has rebounded with greater economic prosperity and abundance. The State budget is again showing a surplus, and unemployment is virtually non-existent.

The "9-11 slump" in the economy resulted from a sharp decline in the numbers of mainland and Asian tourists willing to come to the State for their vacations. At one point during this 4-year period, the population of the State declined in numbers for the

first time. In addition, the deployment of large numbers of military, active duty, National Guard, and Reserves meant that the economy took yet another hit. Fewer civilian jobs on the bases, the departure of families of active duty military for their family homes on the mainland, and the general decline in purchasing power of families whose primary earner lost their regular wage and was forced to accommodate the military wage structures all contributed to the economic decline.

During that same time period, the population of the State shifted from one with no distinct majority ethnic group to one in which Caucasians represent 39.5 percent of the estimated population (U.S. Census Estimates 2004). The impact of this shift is unknown at this time, but it will be monitored into the future. One clear impact seen already has been the commodification of the Aloha Spirit into a product to be marketed to visitors. Local residents see a different side to the commodification, a lessening in "Aloha" with little things that make them feel less "special." Horns are honked now, a thing that was never done even a decade ago, there is less deference towards elders and those less fortunate, and there are greater expectations for returns on acts of kindness and generosity.

Now that the recovery appears to be well in hand, efforts to make the State a more humane place to live are again underway. The Governor has recently expanded efforts to serve the homeless, with large appropriations of funds for congregate housing with support services. The community responded with larger-than-ever donations to charities and local helping agencies. However, at the same time, the sense of NIMBY (Not In My Back Yard) prevails in many communities when it comes to expanding and extending the safety net of services for the poor and underserved. Nowhere does this become more apparent than in the siting of substance abuse treatment facilities, especially in middle income and affluent communities.

The recent rapid and large increases in gasoline prices have resulted in large price increases on just about everything as transportation surcharges are levied on ocean, air, and land shipping costs. The beginning of a series of increases in mortgage rates has also impacted the population who, already stretched by the incredibly high housing costs, are now seeing interest rates rise rapidly if they purchased via an adjustable rate mortgage. The result of these shifts and economic determinants is that for the average resident of the State, the possibility of buying a house is now out of the question; the costs of food and basic necessities, while previously high, have increased; and the average incomes of construction

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and service employees have begun to shrink in response to higher operating costs for businesses. What surplus funds there are now become essential income to pay for gasoline and increased housing costs.

### Data Sources

Much of the data presented in this report are from the Honolulu CEWG, which met on April 7, 2006. The meeting was hosted by the Hawai'i High Intensity Drug Trafficking Area (HIDTA) program office, whose staff facilitated the attendance of the Drug Enforcement Administration (DEA) representatives, as well as persons knowledgeable about drug data from Honolulu and neighbor islands. The State of Hawai'i Narcotics Enforcement Division, although invited, did not participate. Honolulu Police Department (HPD) staff and the County Medical Examiner's Office submitted data but were unable to attend and participate. The State's Alcohol and Drug Abuse Division (ADAD) attended and presented data from the State treatment system, as well as information on the recently formed State Outcomes Epidemiology Workgroup (SOEW), sponsored by funding from the Substance Abuse and Mental Health Services Administration. This report is focused on drug activities on O'ahu (Honolulu County) for calendar year 2005. Other specific data sources are listed below:

- **Treatment admissions and demographic data** were provided by the Hawai'i State Department of Health, ADAD. Previous data from ADAD are updated for this report whenever ADAD reviews its records. These data represent all State-supported treatment facilities (90 percent of all facilities). About 5–10 percent of these programs and two large private treatment facilities do not provide data. During this reporting period, approximately 45 percent of the treatment admissions were paid for by ADAD; the remainder were covered by State health insurance agencies or by private insurance. The rate of uninsurance for the State is about 10 percent.
- **Drug-related death data** were provided by the Honolulu City and County Medical Examiner (ME) Office for 1991 through 2005. These data are based on toxicology screens performed by the ME Office on bodies brought to them for examination. The types of circumstances that would lead to the body being examined by the ME include unattended deaths, deaths by suspicious cause, and clear drug-related deaths. While the ME data are consistent, they are not comprehensive

and account for only about one-third of all deaths on O'ahu. To allow a direct comparison between ME data and treatment data, the ME data were multiplied by a factor of 10 on the exhibits.

- **Crime lab data** are from the National Forensic Laboratory Information System (NFLIS), U.S. (DEA) for 2002–2005. The data originate in the HPD forensic laboratory and relate to drugs seized and otherwise collected in the performance of the department's investigation and enforcement duties.
- **Law enforcement case data** for 2005 were received from the HPD, Narcotics/Vice Division only.
- **Drug price data** were provided for the first half of 2005 by the HPD, Narcotics/Vice Division.
- **Uniform Crime Reports (UCR) data** were accessed from the State's Attorney General's Web site for 1975–2004.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the Hawai'i State Department of Health.

Emergency department drug mentions data have not been available in Hawai'i since 1994. Discussions with the Healthcare Association of Hawai'i regarding inclusion in the Drug Abuse Warning Network (DAWN) program have resulted in a briefing of all hospital CEOs and the sharing of DAWN information. Over the past 2 years, the healthcare industry of the State has been hoping for a meeting with this program, and one is to occur during the first half of 2006. The CEWG for Honolulu and Hawai'i was able to secure hospital emergency department admissions data for 2004 from the Hawaii Health Information Corporation (HHIC). These data were presented in the January 2006 CEWG paper and, hopefully, will be available on a regular basis. HHIC provides the audited numbers of ICD-9CM diagnoses by age, sex, marital status, and patient home geo-descriptor that were billed to the Federal Government or health insurance companies in 2004 using the UB-82 hospital billing forms from the Centers for Medicaid Services, DHHS. For a listing of data that are available from the UB-82 forms, see <[http://www.unlv.edu/Research\\_Centers/chia/hospitalinpatientdata/html/hospitalfilingrequirements.htm](http://www.unlv.edu/Research_Centers/chia/hospitalinpatientdata/html/hospitalfilingrequirements.htm)>.

## DRUG ABUSE PATTERNS AND TRENDS

**General Comments**

Hawaiians and Whites remain the majority user groups among the 17 identified ethnic groups (plus 2 other categories: "other" and "unknown/blank") who access ADAD facilities for substance abuse treatment. During 2005, 44.9 percent and 22.4 percent of the admissions to treatment services were Hawaiians/Part Hawaiians or Whites, respectively. All other groups represented significantly lower proportions of admissions. A two-to-one ratio of males to females characterizes treatment admissions (63.1 percent male), and, by far, those younger than 18 (26.1 percent), those age 25–44 (23.4 percent), and 35–44-year-olds (23.0 percent) dominated the admissions. More than one-third (35.4 percent) of admissions were from court referrals, just under 10.0 percent (9.6 percent) came from the schools (education), nearly 6.0 percent (5.9 percent) were from Child Protection Services, and 8.3 percent were from other health care providers. Twenty-five percent of all admissions were students.

Methamphetamine remains the leading primary substance of abuse for those admitted to treatment, accounting for 42.4 percent of all admissions in 2005. Marijuana remained the third most frequently reported primary substance for treatment admissions (21.9 percent), behind alcohol (24.8 percent). It is important to point out, however, that almost all admissions are polydrug treatment admissions, and most list alcohol as a substance of abuse. While marijuana abuse accounts for the majority of treatment admissions among those younger than 18 (the most frequently admitted age group), the abuse of ice or crystal methamphetamine still looms as a major treatment category for this group.

The NFLIS data presented in exhibit 1 show several interesting findings that relate to the dominance of methamphetamine within the drug community of Honolulu. First, the proportion of all drug samples collected that are methamphetamine ranged between 58 and 62 percent across the 4 years of available data (2002–2005). That is, of all samples collected from all sources for all reasons, fully 3 in 5 are methamphetamine. Another important finding shown in exhibit 1 is that the second most commonly occurring drug in the samples is cannabis, which constantly accounts for between 16.5 and 17.6 percent of the items. Third on the list of drugs across all years is cocaine, which consistently accounts for between 11.9 and 14.2 percent of the drug items. Heroin is consistently fourth in terms of proportion of all drugs sampled across the 4 years, ranging between 1.6 and 1.9 percent. These four drugs—methamphetamine,

cannabis, cocaine, and heroin—represent a cumulative total of between 92.0 and 94.5 percent of all the drug samples analyzed by forensic labs in Hawai'i. Samples of all other drugs combined represent less than 10 percent of the total samples tested.

The police data used in this report are only for the Honolulu Police Department. (In previous CEWG reports, data from neighbor island police departments were reported when available. The frequency and consistency of reporting made it impossible to continue the practice.)

During 2005, drug prices in general rose in most categories (see exhibit 2). The size of the drug supply seems stable, with seizures having little impact on price structure.

**Cocaine/Crack**

Powder cocaine and crack treatment admissions in Hawai'i declined during the current period. There were 363 primary cocaine treatment admissions in 2004; for 2005, that number was 244 (exhibit 3). This shows that the number of clients listing cocaine as the primary drug, after being quite stable for several years, began a decline in 1999 that continued through 2005. Powder cocaine/crack now ranks fourth (3.1 percent of admissions) among primary drugs of treatment admissions, after methamphetamine, alcohol, and marijuana.

The Honolulu ME reported 15 deaths with a cocaine-positive toxicology screen during 2005, which compares with 22 deaths in all of 2004 (exhibit 3). In 2003, there were 26 deaths, compared with 22–24 in 1999–2002. This finding reinforces the treatment finding of a general and continual decline in cocaine use over the past decade. It should be remembered that data on the chart have been adjusted to allow for their presentation on the same axes by multiplying all death data by a constant of 10.

In 2005, cocaine accounted for 13 percent of the 2,267 drug items reported to NFLIS by Honolulu police labs, a proportion that was relatively stable from 2002 to 2005 (exhibit 1).

According to the HPD, cocaine prices have remained relatively stable over the past several years. One-quarter gram of crack sold for \$20–\$40 in 2005, the same amount of cocaine powder, while not listed on the HPD chart, was estimated to cost \$25–\$35 (exhibit 2). Police cases for cocaine/crack returned to their decade-long decline during 2005, with 144 cases (exhibit 4). This compares with 239 cases in 2004 and 202 in 2003. Over the past several years,

the number of HPD cocaine cases plummeted from more than 1,200 cases in 1996 to less than 150 cases in 2005 (an 86-percent decline). Cocaine seizures by HPD totaled 8,797 grams of powder cocaine and 463 grams of rock cocaine in 2005. This compares with 14,927 grams of powder and 239 grams of rock cocaine in 2004, 7,637 grams of powder and 3,721 grams of rock in 2003, and 5,727 grams of powder and 629 grams of rock cocaine in 2002.

### Heroin and Other Opiates

The heroin market for Honolulu is dominated by black tar heroin, and it is readily available in all areas of the State. China white heroin has been uncommon in Hawai'i for many years, but it is occasionally available for a premium price. HPD data show 3,602 grams of black tar and 18.5 grams of China white powder were seized in 2005. This is triple the amount seized for 2004 (1,251 grams of black tar and 1.7 grams of powder) and is even higher than the 3,502 grams of black tar seized in 2003 and the 0.019 grams of powder seized in 2003. For 2002, 992 grams of black tar and 494 grams of powder were seized. In 2001, 530 grams of powder were seized, along with 3,258 grams of black tar heroin. According to the HPD in 2005, black tar heroin prices have dropped in Honolulu to \$20–\$50 per one-quarter gram, \$500–\$800 per one-quarter ounce (7 grams), and \$1,700–\$2,000 per ounce (exhibit 2).

In 1998, record levels of treatment admissions were recorded, with more than 500 admissions that year. A decline in heroin treatment admissions began in Hawai'i in 1999 (exhibit 5). In 2005, however, heroin ranked fifth if considered alone (2.4 percent), or fourth if considered along with other opiate admissions (4.9 percent).

The Honolulu ME reported that deaths in which opiates were detected again rose in 2005; however, the residuals of heroin versus other opiates could not be definitively separated for several cases. Only 13 heroin deaths were confirmed for 2005 (exhibit 5). Decedents with a positive toxicological result for other opiates were primarily comprised of those in whom oxycodone, morphine, or methadone were detected. The exact medication (e.g., OxyContin) used was not specified. Twelve decedents had oxycodone present, 16 had hydrocodone, and the rest of the 83 "opiates" decedents ( $n=55$ ) had morphine present in their toxicology screens. Two additional decedents had fentanyl present. An additional concern regarding methadone was expressed by the Medical Examiner's office this year. Previously, the ME had been asked to review its records and to monitor the appearance of methadone among decedents. In 2005, there were 21

decedents with methadone in the toxicology screens, compared with 25 decedents in 2004, 22 in 2003, and 28 in 2002.

In 2005, heroin accounted for 1.6 percent of the drug items reported by NFLIS, remaining basically stable from 2002 to 2005 (exhibit 1).

The HPD reported 29 heroin cases in 2005, compared with 25 cases in 2001, 44 in 2002, 32 in 2003, and 33 in 2004 (exhibit 6). In spite of the high number of cases reported in 1998, the decade-long trend in heroin cases is a downward one from the 54 cases reported in 1995.

### Marijuana

Statewide, marijuana treatment admissions for 2005 rose to a new height compared with data from all years since 1991. The 1,733 admissions for 2005 exceeded the 1,461 admissions in 2004 by 18.6 percent (272 cases) (exhibit 7). Those admitted for treatment in 2005 continued to be younger persons referred by the courts and schools. In examining these treatment data, it is important to remember that the number of persons in treatment for marijuana use in 2005 represents a sevenfold increase over the number in treatment in 1991, the first year for which there are data. It is also important to note that while marijuana is listed as the primary drug of use at admission, many users of other drugs use marijuana as a secondary or tertiary drug of choice.

Between 1994 and 1999, the O'ahu ME reported 12–21 deaths per year in which marijuana was found in the specimens submitted for toxicology screening (exhibit 7). Those numbers increased to 25 in 2000, 36 in 2001, 30 in 2002, 32 in 2003, and 31 in 2004. In 2005, the number of decedents with a positive tetrahydrocannabinol (THC) toxicological screen was 43, the highest number to be reported since record collection began in 1991. Again, in most instances, marijuana was used with other drugs in drug-related deaths.

The HPD continues to monitor, but to not specifically report, case data for marijuana. Instead, marijuana cases are combined with other drugs under the category "Detrimental Drugs," an artifact of the Uniform Crime Report System. As mentioned in previous CEWG reports, possession cases remain steady at about 650 per year, although distribution cases have continued to increase. Law enforcement sources speculate that much of the Big Island's (Hawai'i) marijuana is brought to O'ahu for sale. Exhibit 8 shows the HPD reported 116 marijuana cases in 2005. In 2005, 6,814 marijuana plants were seized, as were a total of 81,966 grams of dried marijuana. The

comparable numbers for 2004 were 1,045 plants and 24,814 grams of dried marijuana.

Marijuana (cannabis) was the second most frequent drug reported by NFLIS in 2005, accounting for 17.4 percent of the total items analyzed. This proportion was relatively stable from 2002 to 2005 (exhibit 1).

As shown in exhibit 1, marijuana cost \$20–\$40 per joint and \$300–\$550 per ounce during 2005.

### **Methamphetamine**

Hawai'i's drug of choice among the 18–34-year-old population group remains crystal methamphetamine. "Ice" has been a drug of concern among treatment providers and law enforcement officers for two decades now and seems to be worsening in every report. The methamphetamine seized in Hawai'i has traditionally shown that the purity is near perfect (more than 90 percent). However, in the latter part of 2005, anecdotal evidence emerged that suggested the purity had declined even though the price of the drug was constant. According to HIDTA, the purity of several samples submitted during late 2005 was in the mid-50s rather than in the high 90s. The high purity is a necessary, but obviously not a sufficient, condition for the smoking of the drug—Hawaiians' chosen route of administration. No decline in users, cases, decedents, or those admitted to treatment occurred during this period of low purity.

Statewide methamphetamine treatment admissions remained extremely high ( $n=3,353$ , accounting for 42.4 percent of all admissions during 2005), continuing the increase in admissions observed for the past 13 years (exhibit 9). In 2003, there were 3,182 such admissions, up from 2,677 in 2002. The increase in demand for treatment space for methamphetamine abusers has been nearly 2,000 percent since 1991. This situation has so far outstripped the treatment system's capacity, that people who might want treatment for alcohol or any other drug would not likely receive it in a timely manner. With court diversion programs in place, the available treatment slots for non-judicial treatment admissions are extremely tight.

Between 1994 and 2000, the O'ahu ME mentioned crystal methamphetamine in 24–38 cases per year (exhibit 9). In 2001, that number jumped to 54, and methamphetamine-positive decedents increased to 62 in 2002. In 2003, the number of decedents with ice detected in their toxicology reports was 56, and in 2004 it was 67. For 2005, a total of 88 decedents were found to have a positive toxicology for

methamphetamine, representing 97.3 deaths per 1,000,000 population for the island of O'ahu.

Crystal methamphetamine prices remained constant over the course of 2005. The drug is sold in the islands as "clear" (a clear, white form) or "wash" (a brownish, less processed form). Prices for ice varied widely in 2005 according to these two categories and availability, as illustrated by prices in Honolulu: \$40 (wash) or \$80 (clear) per one-quarter gram; \$500 (wash) or \$750 (clear) per one-quarter ounce; and \$1,800–\$2,800 (wash) per ounce (exhibit 2).

HPD methamphetamine case data for Honolulu previously peaked at 984 in 1995 (exhibit 10). The annual number of cases subsequently declined each year, and they totaled 616 in 2002 and 964 in 2003. In 2004, a total of 872 cases were reported. For 2005, 962 cases were registered by the Honolulu Police Department, which is the second highest number of cases since data collection began in 1991. Minimal data are available from the neighbor islands, but they also show an increase in cases.

Methamphetamine accounted for 62.5 percent of the drug items analyzed by Honolulu police labs in 2005, exceeding the percentages reported in all other CEWG areas. This pattern was consistent from 2002 onward (exhibit 1).

Seizures of methamphetamine are up again. In 2005, a total of 74,767 grams of ice were seized, along with 10,842 grams of powdered methamphetamine, substantially more than in 2004 (63,000 grams of ice and 2 grams of powdered methamphetamine), 2003 (66,635 grams of ice and no powder), or 2002 (40,511 grams of ice and 1 kilogram of powder).

### **Depressants**

Barbiturates, sedatives, and sedatives/hypnotics are combined into this category. Few data were provided about these drugs in the islands.

ADAD maintains three categories under the "depressant" heading: benzodiazepines, other tranquilizers, and barbiturates. Treatment admissions for these drugs are minimal in terms of impact on the State system. Annually, the numbers admitted to treatment for these drugs total less than 40.

The number of ME mentions for depressants in Honolulu has remained stable for several years at five or less.

The HPD has not reported depressant case data since 1991.



**Hallucinogens**

Statewide, hallucinogen treatment admissions have totaled less than five per year during recent periods. No hallucinogen ME mentions have been reported since the beginning of data collection.

Prices for lysergic acid diethylamide (LSD) were \$4–\$6 per "hit" and \$225–\$275 per 100 dosage unit sheets (a "page") in 2005 (exhibit 2).

**Overall Death Data**

An examination of exhibit 11 shows that over the past 15 years, the Honolulu ME drug cases have varied considerably. Brief descriptions of drug trends, as seen from the ME's viewpoint, were complex in the early 1990s, with low numbers of cases for cocaine, methamphetamine, and marijuana. In addition, it is important to note that the accumulation of drug cases in 1993–1995 became quite high.

By 2000, heroin cases had started to decline, but marijuana and methamphetamine cases began to soar in numbers. Cocaine cases remained relatively stable throughout this period, but they appeared to have begun a decline in the mid-2000–2005 period. Alcohol cases, which were only added to the series in 2000, show a continual and rapid increase.

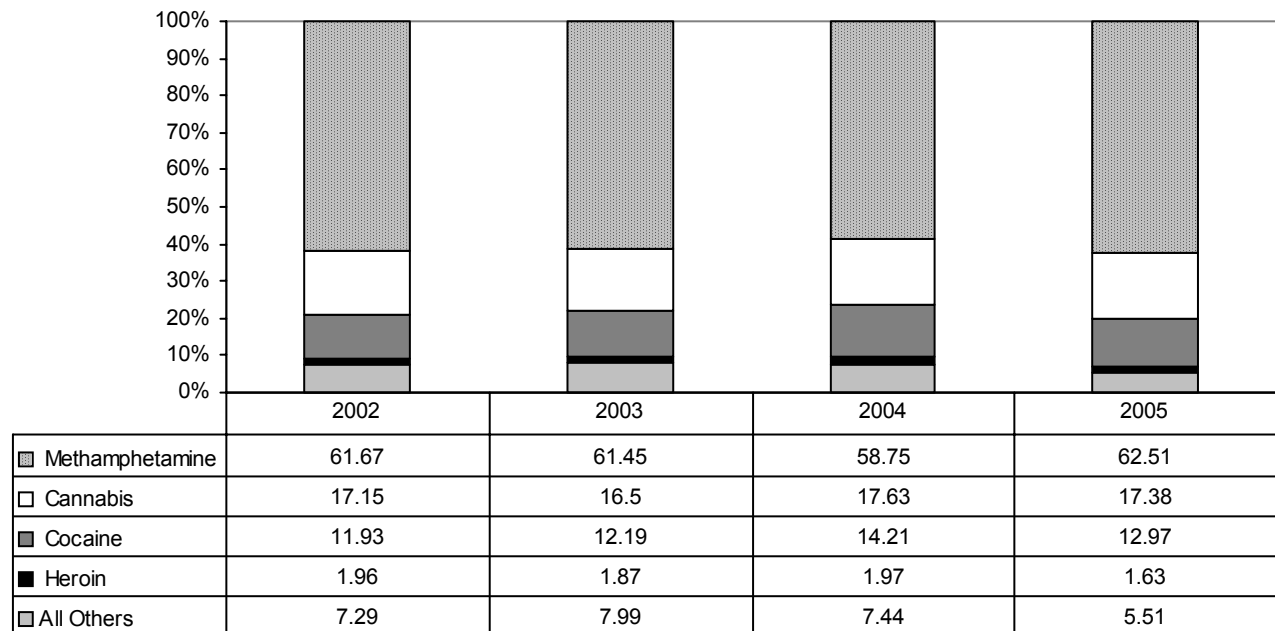
**INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

State-level data regarding the numbers of AIDS cases that have been reported from 1983 to 2005 are shown by risk factor in exhibit 12. The transmission factor of men having sex with men (MSM) represents 74 percent of all cases. Injection drug use was a risk for 7 percent, with another 7 percent of cases among MSM who are also injection drug users (IDUs). All other reasons accounted for less than 15 percent of all cases.

Since 1983, a total of 2,847 AIDS cases were reported to the Hawai'i State Department of Health by health providers, and 1,542 (54 percent) of these individuals are known to be deceased. The estimated size of the population in Hawai'i living with HIV/AIDS is between 2,600 and 2,900, including those who are currently unaware of their HIV-positive status. There were 109 cases reported in 2005 (1-year), which yields an annual AIDS report rate of 8.5 per 100,000 population. Of the 109 cases, there were 97 (89 percent) males and 12 (11 percent) females. Honolulu County reported 58 cases; Maui County reported 18 cases; Hawai'i County reported 12 cases; and Kauai County reported 21 cases.

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**Exhibit 1. NFLIS Drug Lab Results in Honolulu: 2002–2005**



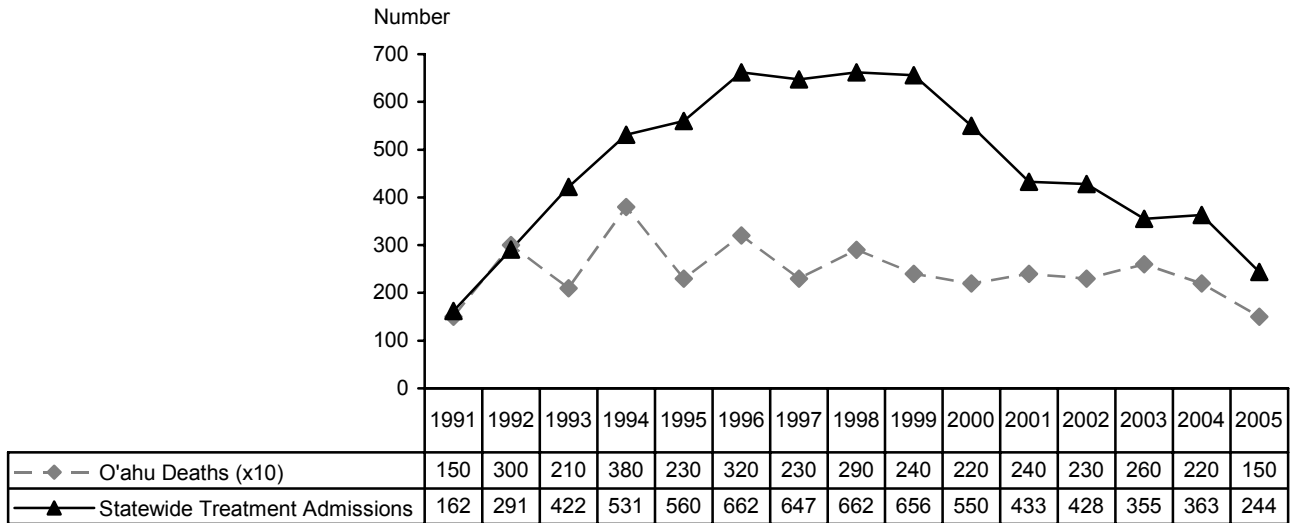
SOURCE: NFLIS, DEA

**Exhibit 2. Drug Prices in Honolulu: 2005<sup>1</sup>**

Drug	Paper (1/4 Gram)	½ Teen (0.88 Grams)	8-Ball (1/8 Ounce)	Quarter (1/4 Ounce)	“O” (1 Ounce)	“LBs” (1 Pound)	“Kilos” (1 Kilogram)
Heroin							
White	\$30–\$70				\$1,700–\$2,000	\$30,000	\$70,000
Black tar	\$20–\$50			\$500–\$800	\$1,700–\$2,000		
Cocaine							
Powdered		\$100–\$120	\$250–\$350	\$400–\$600	\$1,100–\$1,500	\$13,500–\$25,000	\$26,500–\$52,000
Rock	\$20–\$40		\$200–\$300				
Crack	\$20–\$40	\$60–\$90	\$140–\$225	\$300–\$450	\$1,050–\$1,200		
Crystal Methamphetamine	\$40–\$80	\$100–\$150	\$300–\$450	\$500–\$750	\$1,800–\$2,800	\$18,000–\$28,000	
LSD	\$4–\$6			\$225–\$275 (100s)			
Marijuana	\$20–\$40				\$300–\$550	\$6,000–\$9,000	
Hashish	\$10–\$15						
Phencyclidine (PCP)	\$10–\$20	\$100		\$350–\$550	\$900–\$1,200		
MDMA	\$15–\$50						
Vicodin	\$3–\$5 tab						
Valium	\$3–\$5 tab						
Xanax	\$3–\$8 tab						

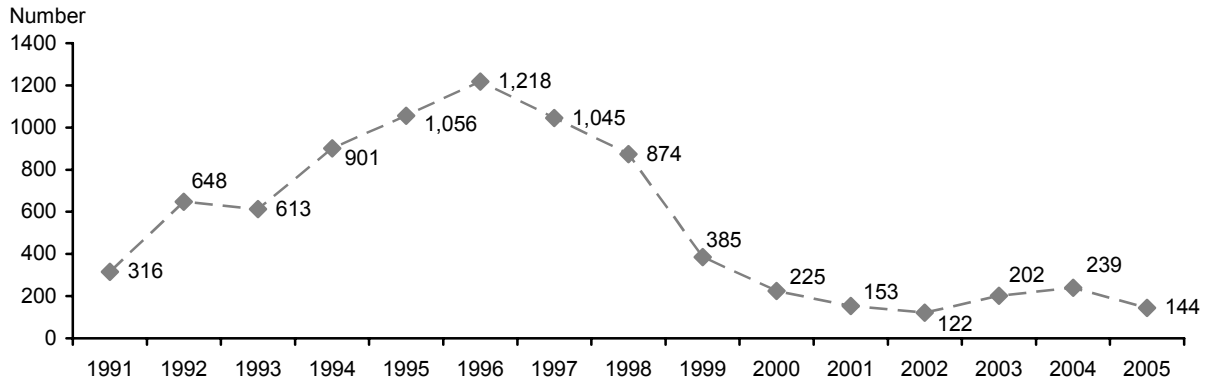
<sup>1</sup>Represents the first half of 2005.  
SOURCE: Honolulu Police Department

**Exhibit 3. Cocaine Death<sup>1</sup> and Treatment Data in Honolulu and Hawai'i: 1991–2005**



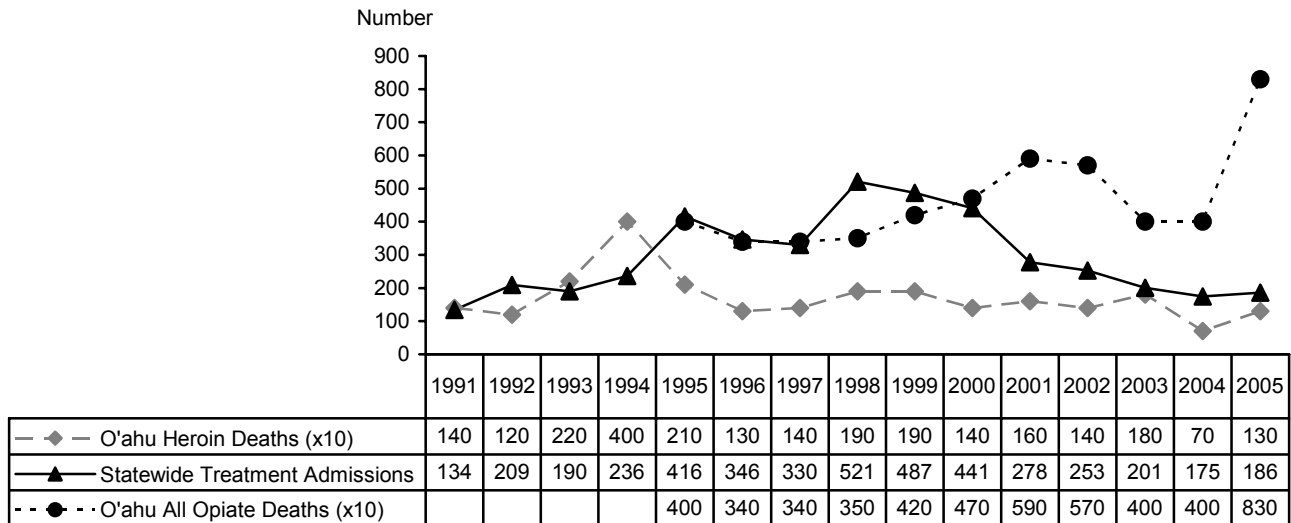
<sup>1</sup>To allow for direct comparison between O'ahu ME data and statewide treatment data, the O'ahu ME data have been multiplied by 10. ME data are for Honolulu City and County.  
SOURCES: Honolulu City and County Medical Examiner's Office and State Department of Health, Alcohol and Drug Abuse Division

**Exhibit 4. Cocaine-Related Police Case Data in Honolulu: 1991–2005**



SOURCE: Honolulu Police Department, Narcotics/Vice Division

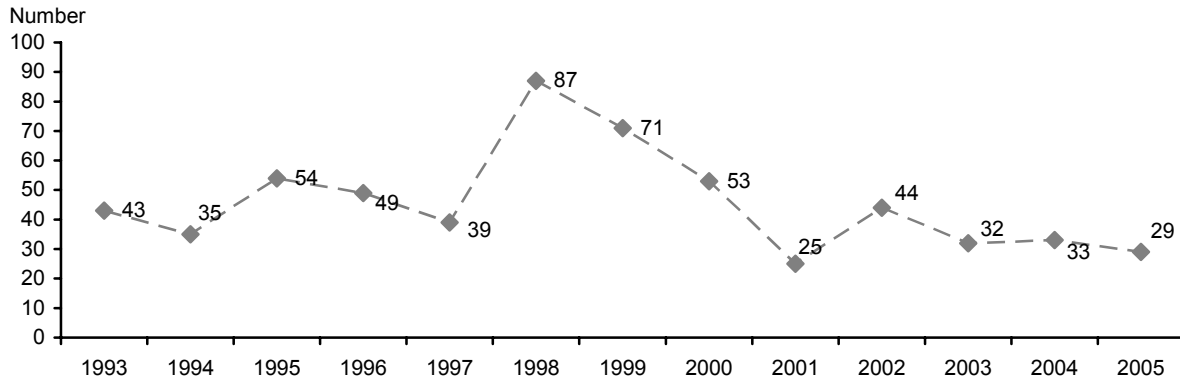
**Exhibit 5. Heroin Death<sup>1</sup> and Treatment Data in Honolulu and Hawai'i: 1991–2005**



<sup>1</sup>To allow for direct comparison between O'ahu ME data and treatment data, the O'ahu ME data have been multiplied by 10. ME data are for Honolulu City and County.

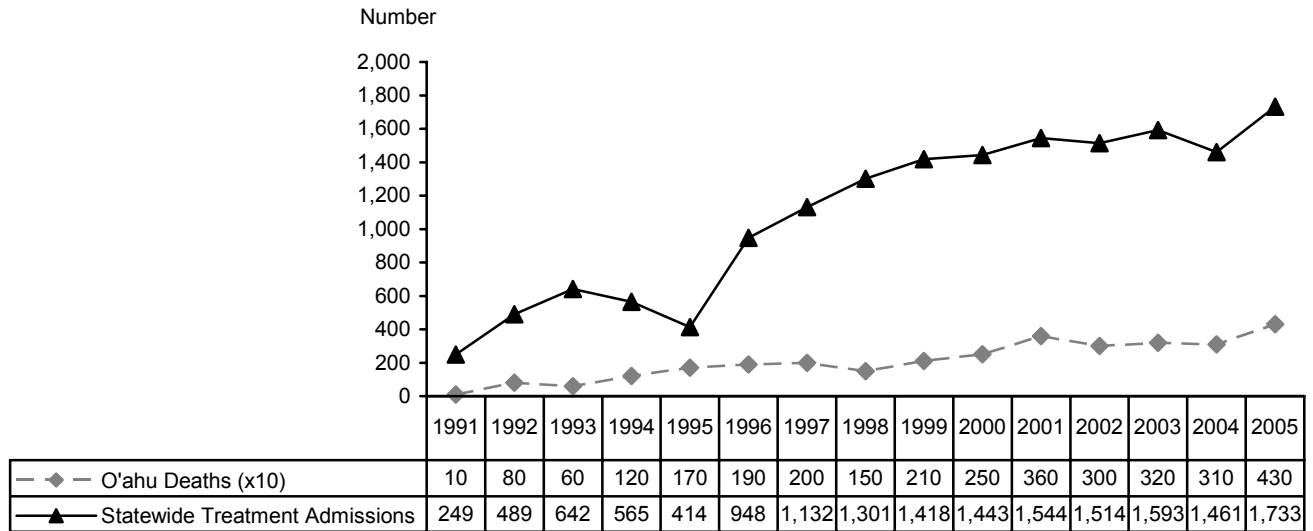
SOURCES: Honolulu City and County Medical Examiner's Office and State Department of Health, Alcohol and Drug Abuse Division

**Exhibit 6. Heroin-Related Police Case Data in Honolulu: 1993–2005**



SOURCE: Honolulu Police Department, Narcotics/Vice Division

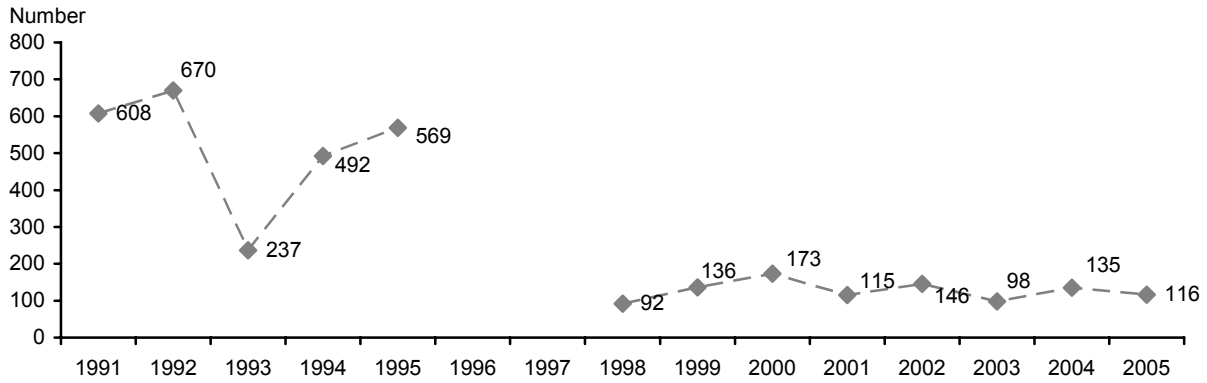
**Exhibit 7. Marijuana Death<sup>1</sup> and Treatment Data in Honolulu and Hawai'i: 1991–2005**



<sup>1</sup>To allow for direct comparison between O'ahu ME data and treatment data, the O'ahu ME data have been multiplied by 10. ME data are for Honolulu City and County.

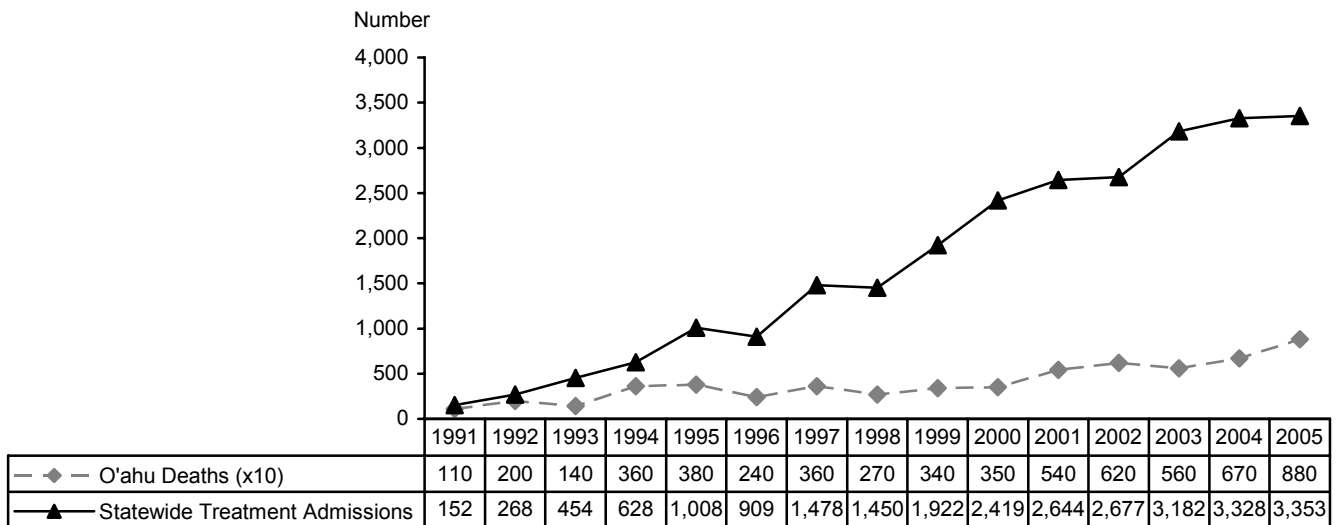
SOURCES: Honolulu City and County Medical Examiner's Office and State Department of Health, Alcohol and Drug Abuse Division

**Exhibit 8. Marijuana-Related Police Case Data in Honolulu: 1991–2005<sup>1</sup>**



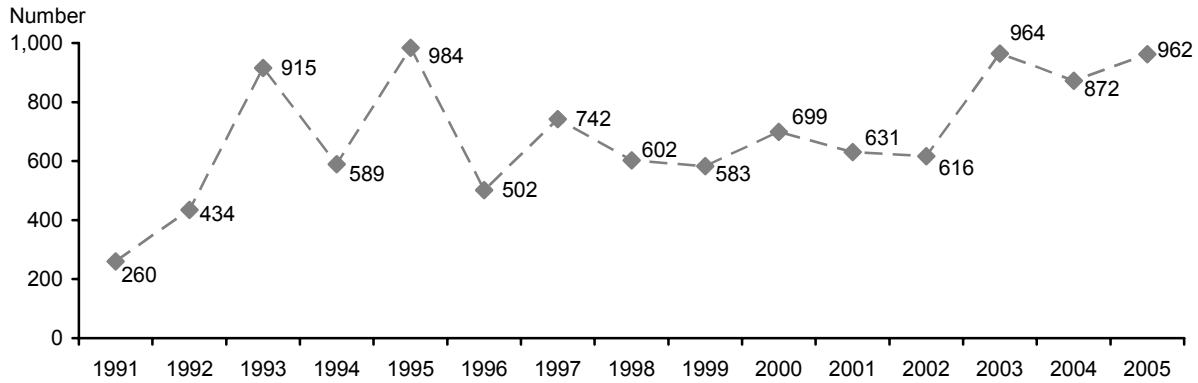
<sup>1</sup>Data were not available for 1996 and 1997.  
SOURCE: Honolulu Police Department

**Exhibit 9. Methamphetamine Death<sup>1</sup> and Treatment Data in Honolulu and Hawai'i: 1991–2005**



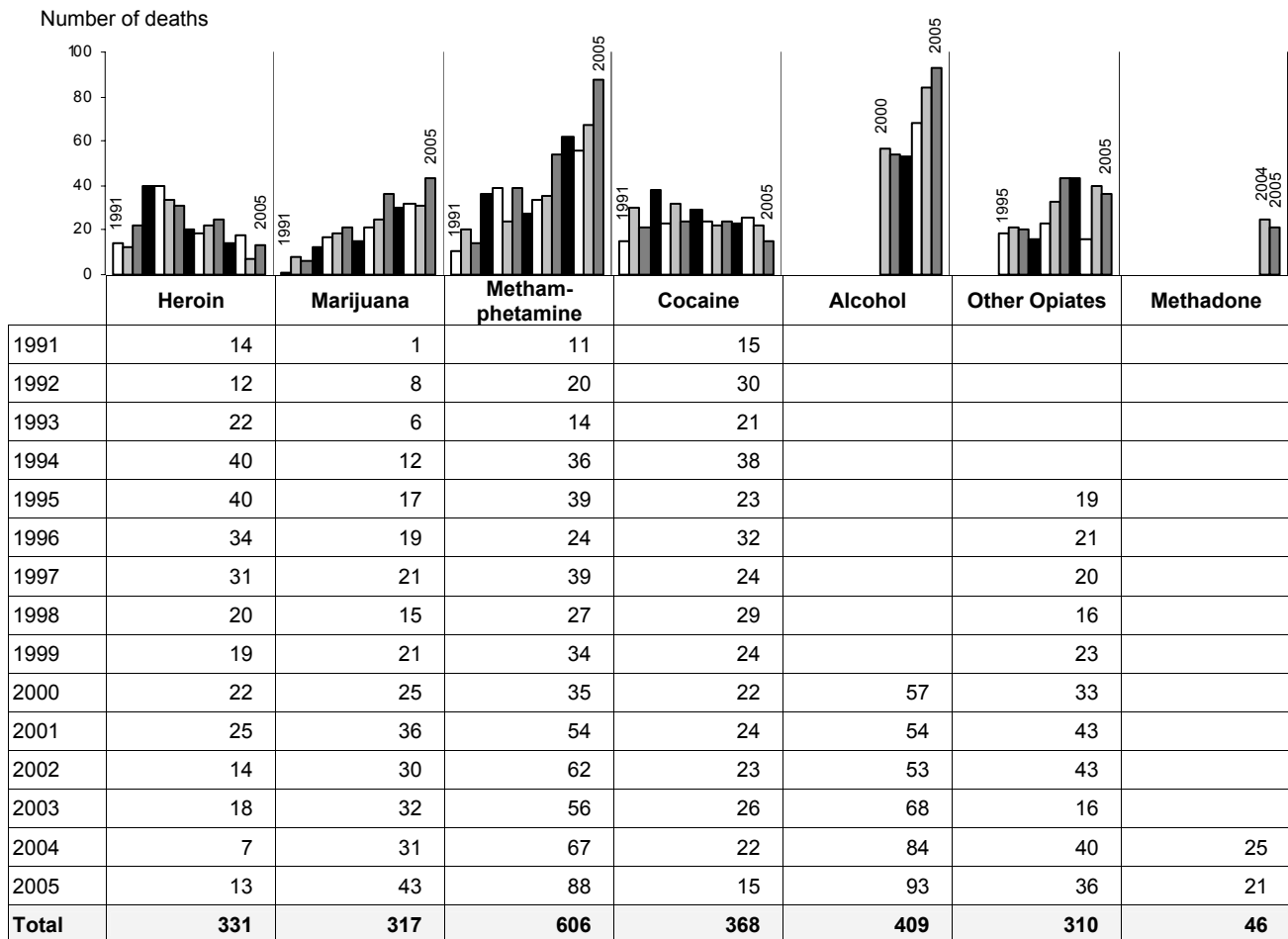
<sup>1</sup>To allow for direct comparison between O'ahu ME data and treatment data, the O'ahu ME data have been multiplied by 10. ME data are for Honolulu City and County.  
SOURCES: Honolulu City and County Medical Examiner's Office and State Department of Health, Alcohol and Drug Abuse Division

**Exhibit 10. Methamphetamine-Related Police Case Data in Honolulu: 1991–2005**



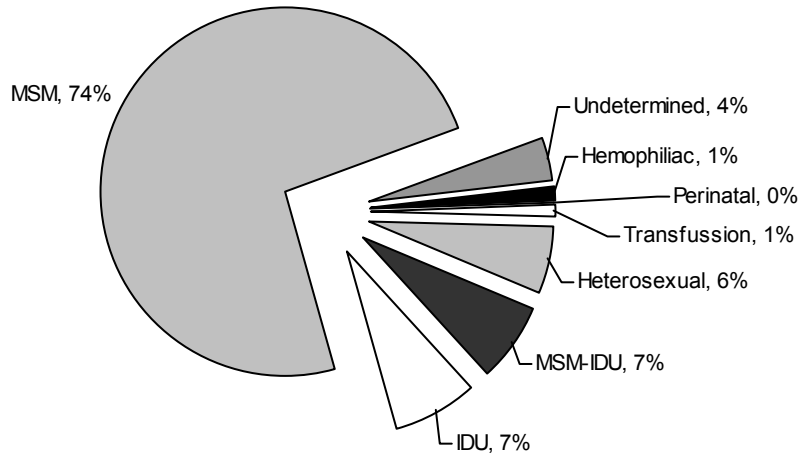
SOURCE: Honolulu Police Department, Narcotics/Vice Division

**Exhibit 11. Drugs Present at Death in Hawai'i, by Drug and Year: 1991–2005**



SOURCES: Honolulu City and County Medical Examiner Office

**Exhibit 12. Mode of Transmission of AIDS Cases in Hawai'i: 1983–2005**



SOURCE: Hawai'i State Department of Health

# Patterns and Trends in Drug Abuse in Los Angeles County, California: A Semiannual Update

Beth Rutkowski, M.P.H.<sup>1</sup>

*Illicit drug use and abuse in Los Angeles County remained largely stable in the second half of 2005. Methamphetamine continued to impact the lives of more and more Los Angeles drug abusers. Despite methamphetamine's dominance in many epidemiological indicator systems, cocaine, heroin, marijuana, and alcohol follow relatively closely to methamphetamine in availability and abuse in the community. Drug Abuse Warning Network data collection in Los Angeles emergency departments was discontinued in the second half of 2005, signaling the loss of a valuable data source. On a positive note, this is the first Los Angeles County-based report that includes DEA's Automation of Reports and Consolidated Orders System (ARCOS) data, which can be used as a proxy measure of prescription drug use. Two notable changes occurred in the latter half of 2005 in substance abuse treatment admissions: (1) a continued increase in the percentage of admissions linked to primary methamphetamine abuse and (2) a slight increase in primary heroin admissions. Methamphetamine accounted for nearly 27 percent of all treatment admissions (triple the percentage reported 5 years prior). For the prior 5 years, the percentage of primary heroin admissions consistently decreased; however, such admissions rose slightly from the first to the second half of 2005 (from 19 to 21 percent of all admissions). Between the first and second halves of 2005, cocaine/crack admissions decreased slightly to 17 percent of all admissions (20 percent excluding alcohol), as did primary marijuana admissions (to approximately 15 percent of the total and 18 percent of illicit drug admissions). The Los Angeles HIDTA region (comprised of Los Angeles, Orange, Riverside, and San Bernardino Counties) accounted for 38 percent of the 256 clandestine methamphetamine laboratory seizures in California in 2005. Even though Missouri, Tennessee, Indiana, Kentucky, and Illinois each had more laboratory seizures than California, and despite the steady decline in methamphetamine laboratories throughout the State, California remains the home of the domestic methamphetamine 'super-*

*lab.' Seventy-six percent of the 38 superlabs seized throughout the Nation were in California, with 34 percent of those being in LA HIDTA counties. Cocaine and methamphetamine together accounted for 69 percent of all Los Angeles-based items recorded by NFLIS. Drug prices and purities were relatively stable in the second half of 2005, with small changes occurring at the midlevel and retail level for certain drugs. Los Angeles County-level California Poison Control System major drug exposure calls in 2005 were dominated by methamphetamine/amphetamine and cocaine/crack; among prescription and over-the-counter medication-related exposure calls, opiates/analgesics were the most frequently mentioned, followed by Coricidin HBP and benzodiazepines. Weighted adolescent substance use data gathered from the California Healthy Kids Survey for the 2003–2005 school years illustrated that past-month usage among Los Angeles County students in grades 7, 9, and 11 were either the same as or lower than percentages reported in previous school years (with the exception of binge drinking and marijuana use). Aside from alcohol, students were most likely to report lifetime marijuana use (22 percent), followed by inhalants (12 percent), cocaine or methamphetamine (at 6 and 7 percent, respectively), and LSD/other psychedelics or ecstasy (each at 5 percent). Indicator data for prescription drugs, PCP, LSD, MDMA, and GHB remained limited, but use and abuse are reported among some nontraditional indicators.*

## INTRODUCTION

### Area Description

Los Angeles County has the largest population (9,935,475, 2005 estimate) of any county in the Nation. If Los Angeles County were a State, it would rank ninth in population behind California, New York, Texas, Florida, Pennsylvania, Illinois, Ohio, and Michigan. Approximately 29 percent of California's residents live in Los Angeles County. The population of Los Angeles County has increased 4.4 percent since the 2000 census. Nearly 90 percent of all Los Angeles County residents live within 88 incorporated cities; the remaining 10 percent reside in unincorporated city-like areas of the county. The five most populated cities are, in descending order of population, Los Angeles (3,694,820), Long Beach (461,522), Glendale (194,973), Santa Clarita (151,088), and Pomona (149,473).

Just over one-half of all Los Angeles County residents are female (50.6 percent) (exhibit 1). More than one-quarter (28.0 percent) are younger than 18; 9.7 percent are older than 65. The racial and ethnic composition of Los Angeles County residents is quite

<sup>1</sup>The author is affiliated with the University of California at Los Angeles, Integrated Substance Abuse Programs, Los Angeles, California.



diverse. Of those residents who report being of one race, just under one-half identify as White (48.7 percent), followed by Asians (11.9 percent), Blacks/African-Americans (9.8 percent), American Indians/Alaska Natives (0.8 percent), and Native Hawaiians/Other Pacific Islanders (0.3 percent). About one-quarter of residents (23.5 percent) identify with another race (not specified). Furthermore, 5 percent report two or more races. Residents of Hispanic/Latino origin may be of any race. Therefore, they are included in the appropriate racial categories above. Nearly 45 percent of Los Angeles County residents are of Hispanic/Latino origin; approximately 31 percent of Whites are not of Hispanic/Latino origin.

Los Angeles County encompasses approximately 4,080 square miles and includes the islands of San Clemente and Santa Catalina. The county is bordered on the east by Orange and San Bernardino Counties, on the north by Kern County, on the west by Ventura County, and on the south by the Pacific Ocean. Los Angeles County's coastline is 81 miles long. The coastal portion of Los Angeles County is heavily urbanized, though there is a large expanse of lesser-populated desert inland in the Santa Clarita Valley (especially in the Antelope Valley). In between the large desert portions of the county (comprising 40 percent of land area) and the heavily populated central and southern portions sits the San Gabriel Mountains, containing the Angeles National Forest.

The National Drug Threat Assessment 2005 identified 12 primary drug market areas throughout the United States that serve as major consumption and distribution centers of cocaine, marijuana, methamphetamine, heroin, and methylenedioxymethamphetamine (MDMA or ecstasy). California is one of the most active drug smuggling and production areas in the United States and contains three market areas—Los Angeles, San Diego, and San Francisco. This is caused, in part, by the State's proximity to the Pacific Ocean and Mexico. Los Angeles is a national-level transportation hub and distribution center, and it is the only primary market for all five of the major drugs of abuse listed above (NDIC 2005).

### Data Sources

This report describes drug abuse trends in Los Angeles County from January 1999 to December 2005. Information was collected from the following sources:

- **Drug treatment data** were derived from the California Department of Alcohol and Drug Programs (ADP), California Alcohol and Drug Data System (CADDSS), and correspond to Los Angeles County alcohol and other drug treatment and

recovery program admissions for January 2001 to December 2005. This is the third semiannual report for which user demographic data are presented by route of administration for the major drugs of abuse (including cocaine/crack, heroin, and methamphetamine). It should be noted that admissions for heroin treatment are disproportionately represented because of reporting requirements for facilities that use narcotic replacement therapy to treat heroin users. Both private and publicly funded narcotic treatment providers must report their admissions to the State, while for other drug types, only publicly funded providers must report.

- **Poison control center call data** were accessed from the California Poison Control System (CPCS) for January 2000 through December 2005. The CPCS provides poison information and telephone management advice and consultation about toxic exposures; hazard surveillance to achieve hazard elimination; and professional and public education on poison prevention, diagnosis, and treatment. The information obtained from the CPCS includes calls in which there was a confirmed exposure to an illicit substance (e.g., cocaine, heroin, marijuana, ecstasy, etc.), a prescription drug or substance with common household uses, or a combination of both. The statistical analysis contained in this report is preliminary and focuses mostly on illicit substances; more indepth analyses of the prescription and household substance categories will be conducted for future area reports.
- **Prescription drug sales data** were extracted from the Drug Enforcement Administration's Automation of Reports and Consolidated Orders System (ARCOS) reports. The data provide retail drug distribution data by Zip Code, covering primarily sales to hospitals and pharmacies. AROCS data presented here are for the 3-digit Zip Code areas of 900xx through 935xx, which roughly correspond with Los Angeles County boundaries. Available data report the "grams of active ingredient" by year; this is complicated to translate into the number of prescriptions or users, so data are reported in terms of proportional change over time (calendar year [CY] 2001 vs. CY 2005).
- **Drug availability, price, purity, seizure, and distribution data** were derived from the Los Angeles Police Department (LAPD), the Los Angeles High Intensity Drug Trafficking Area (HIDTA), the Los Angeles County Regional Criminal Information Clearinghouse (LA CLEAR), the National Drug Intelligence Center

(NDIC), and the Drug Enforcement Administration (DEA). The prices included in this report reflect the best estimates of the analysts in the Research and Analysis Unit at LA CLEAR. The price estimates are based primarily on field reports, interviews with law enforcement agencies throughout the Los Angeles HIDTA, and Post Seizure Analysis.

- **Drug analysis results** from local forensic laboratories were derived from the DEA's National Forensic Laboratory Information System (NFLIS). The statistics correspond to items analyzed between January 1, 2003, and December 31, 2005 (calendar years 2003–2005).
- **Adolescent substance use statistics** were accessed from the Los Angeles County-level California Healthy Kids Survey (CHKS) data for the 1999–2000, 2000–2001, 2001–2002, 2002–2003, 2003–2004, and 2004–2005 school years from WestEd. Data for the two most recent school years (2003–2005) were weighted to enrollment. The CHKS is a modular survey that assesses the overall health of secondary school students (in grades 7, 9, 11, and a small sample of non-traditional school students). In California, Local Education Agencies (LEAs) and County Offices of Education (COEs) that accept funds under the Federal Title IV Safe and Drug Free Schools and Communities (SDFSC) program or the State Tobacco Use Prevention Education (TUPE) program must administer the CHKS at least once every 2 years. Individual school districts are given the opportunity to administer the survey in every school year, however, if the resources exist to do so. It should be noted that data for school years 2000–2001, 2002–2003, and 2004–2005 do not include Los Angeles Unified School District secondary school students (LAUSD only collects CHKS every other year, as required). Section A (Core Module) includes questions on lifetime and past-30-day use of alcohol, drugs, and tobacco. Another module (Section C) is comprised of additional questions related to alcohol and drug use, violence, and safety.
- **Demographic and geographic data** were provided by the United Way of Greater Los Angeles, Los Angeles County Online, and the U.S. Census Bureau (*State and County QuickFacts*).
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** (cumulative through December 2005) were provided by the Los Angeles County Department of Health Services, HIV Epidemiology Program,

Advanced HIV (AIDS) Quarterly Surveillance Summary, January 2006.

Drug Abuse Warning Network (DAWN) emergency department data collection for the Los Angeles division (i.e., Los Angeles County) was discontinued as of July 2005. Therefore, no DAWN ED data appear in this report.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

Approximately 17 percent of all Los Angeles County treatment and recovery program admissions in July–December 2005 reported a primary crack or powder cocaine problem (exhibit 2). The total number of primary cocaine/crack admissions decreased slightly (9 percent) from the first to second half of 2005. As a percentage of the total, cocaine admissions had remained quite stable at between 17.1 and 19.3 percent for several CEWG reporting periods (exhibits 2 and 3). The proportion fell below 17 percent of the total in the second half of 2005. Alcohol was the most commonly reported secondary drug problem among primary cocaine admissions (36 percent) (exhibit 4), followed by marijuana (19 percent). Smoking is the reported route of administration for 86 percent of all cocaine admissions, followed by inhalation (12 percent). When asked whether they had used any drug intravenously in the year prior to admission, approximately 4 percent of all primary cocaine admissions reported that they had used needles to administer one or more drugs intravenously at least once during the specified time period (exhibit 4).

Sixty-seven percent of the primary cocaine admissions reported in the second half of 2005 were male, a slight increase from the gender breakdown seen in the previous CEWG report. Black non-Hispanics continued to dominate cocaine admissions (at 57 percent of the total), followed by Hispanics (at 25 percent, still up from the 22 percent seen in the second half of 2004) and White non-Hispanics (14 percent). In terms of age at admission, 37 percent were concentrated in the 36–45 age group; an additional 20 percent of all primary cocaine admissions were between the ages of 26 and 35 (exhibit 4).

Primary cocaine treatment admissions are more likely than treatment admissions for any other substance (alcohol, prescription medications, or illicit drugs) to report being homeless at admission (30 percent). The percentage of cocaine admissions referred to treatment through the criminal justice system in the second half of 2005 continued to decrease to 12 percent of all admissions (down from 20 percent in the first half of

2004). More frequently mentioned referral sources included self-referral (30 percent) or referral through Proposition 36 (a.k.a., SACPA) court/probation (33 percent). Forty-three percent of primary cocaine admissions had never been admitted to treatment in Los Angeles County for their primary cocaine problem (exhibit 4), identical to the percentage reported in early 2005. An additional 37 percent had one or two prior treatment episodes. Forty-four percent had earned a high school diploma or GED (compared with 42 percent reported in the first half of 2005). At the time of admission, approximately 16 percent were employed either full- or part-time.

Cocaine injectors were more likely than cocaine inhalers or crack smokers to be male (83 percent), White non-Hispanic (50 percent), 36 or older (88 percent), or to have been through four or more prior treatment episodes (25 percent). Crack smokers were more likely than cocaine inhalers or injectors to be female (35 percent), Black non-Hispanic (64 percent), homeless (32 percent), or to have a high school diploma/GED (45 percent). Lastly, cocaine inhalers were more likely than their counterparts to be Hispanic (58 percent), referred by SACPA/Proposition 36 (37 percent), on probation (48 percent), or employed full- or part-time (40 percent).

California Poison Control System calls involving the use of cocaine/crack by Los Angeles County residents increased from 66 in 2001 to a high of 97 in 2003. In 2004, the number of cocaine exposure calls dropped by 24 percent to 74. In 2005, the number of cocaine/crack exposure calls declined an additional 19 percent to 60 calls (exhibit 5a). Between January and December 2005, 63 percent of the cocaine-exposed callers were male, and 55 percent were between the ages of 26 and 44 (exhibit 6). An additional 18 percent were between the ages of 18 and 25.

A total of 5,260 cocaine arrests were made within the city of Los Angeles in the first 6 months of 2005. This represented a 3-percent deficit from the number of cocaine arrests made during the same time period in 2004. Cocaine arrests accounted for 27 percent of all narcotics arrests made between January 1 and June 30, 2005.

Citywide cocaine (including crack and powder) seizures increased 13 percent, from 2,404 pounds seized in 2004 to 2,722 pounds seized in 2005. The street value of the seized cocaine accounted for 64 percent of the total street value of all major drugs seized between January and December 2005.

Data from NFLIS for calendar year 2005 showed that out of 60,613 analyzed items reported by participat-

ing laboratories within Los Angeles County, 36.5 percent ( $n=22,111$ ) were found to be cocaine/crack (exhibit 7). Cocaine/crack was the most likely illicit drug to be found among items tested in the county, followed closely by methamphetamine and more distantly by cannabis. Cocaine/crack has been in the top two (alternating with methamphetamine) in terms of drug items seized in Los Angeles and analyzed by the NFLIS since calendar year 2003.

Mexican and Colombian traffickers work closely together to dominate the wholesale distribution of cocaine and crack in Los Angeles; African-American and Hispanic street gangs control distribution at the retail level. Further, Mexican traffickers continue to specialize in cross-border cocaine transportation by air, land, and sea. The current retail price range of crack cocaine has remained consistent with previous area reports of \$10–\$40 per rock (exhibit 8). The current wholesale price for 1 kilogram of powder cocaine ranges from \$14,000 to \$17,000, which is identical to the wholesale price cited in the past several CEWG reports. The current midlevel and retail prices of powder cocaine remained stable, as well, at \$500–\$600 per ounce and \$80 per gram. The purity of powder cocaine was reported as 73–76 percent pure, identical to the purity rate cited in the January 2006 area report.

According to weighted CHKS data for the 2003–2005 school years (exhibit 9), 6.4 percent of all Los Angeles County secondary school students (including 7th, 9th, and 11th graders, and a small sample of non-traditional students) who responded to the survey had ever used cocaine (crack or powder), and 2.8 percent were current cocaine users (defined as any use in the past 30 days). A breakdown of the data by grade level illustrated that among responding ninth graders, 4.6 percent had ever used cocaine and 2.4 percent were current cocaine users. A higher percentage of 11th graders than 9th graders reported lifetime cocaine/crack use. But, surprisingly, the rate of current users was a bit lower among responding 11th graders (2.3 percent) than among responding 9th graders (2.4 percent). A slightly higher percentage of males reported lifetime cocaine/crack use than females (6.7 percent and 6.0 percent, respectively). When asked about past-6-month use of cocaine (any form), methamphetamine, or other stimulants, 7.0 percent of 9th graders and 6.2 percent of 11th graders responded in the affirmative (exhibit 10).

Long-term trends calculated from CHKS data spanning over the most recent 6 school years (exhibit 11) indicate that the pattern of past-30-day cocaine (powder or crack) use among responding secondary school students was similar to usage patterns for some of the other licit and illicit drugs, such as lysergic acid di-

ethylamide (LSD)/other psychedelics and methamphetamine. Past-30-day cocaine/crack use decreased consistently from the peak level seen in 1999–2000 (4.9 percent) to 3.8 percent in 2002–2003. In 2003–2004, current cocaine use remained stable at 3.8 percent of all respondents, and in 2004–2005, current cocaine use dipped below the 3.0 percent mark to 2.7 percent of all respondents.

## Heroin

From July to December 2005, 5,127 Los Angeles County treatment and recovery program admissions were attributable to primary heroin abuse, compared with 4,870 admissions reported in the county in the first half of the year (exhibit 2). This signifies a 21-percent increase in the number of primary heroin admissions and a nearly 2-percent increase in the proportion of the total. Primary heroin admissions had consistently decreased from the first half of 2004 to the first half of 2005 (to a low of 19.5 percent). In mid-year 2005, this decreasing trend reversed, and heroin now accounts for 21.1 percent of all admissions. Despite this recent reversal, primary heroin treatment admissions are still second to methamphetamine by a substantial margin (26.7 percent vs. 21.1 percent of all admissions). It will be interesting to see what happens in 2006.

Demographics of heroin admissions have remained stable over recent reporting periods. In the second half of 2005, primary heroin admissions were predominantly male (74.4 percent), most likely to be age 41–50 (37 percent), and more likely to be Hispanic (49 percent) than White non-Hispanic (36 percent) or Black non-Hispanic (10 percent) (exhibit 4). Compared with other major types of illicit drug admissions, primary heroin admissions in the second half of 2005 had the largest proportion of users age 36 and older (75 percent). Slightly more than one-third (34 percent) of all primary heroin admissions initiated their heroin use prior to age 18, which is quite low compared with other primary substances, such as alcohol, marijuana, methamphetamine, and phencyclidine (PCP). If primary heroin admissions abused another drug secondarily to heroin, it was most likely to be cocaine/crack (21 percent), followed by alcohol (11 percent).

Heroin administration patterns remained relatively stable in the first half of 2005, with injectors accounting for 87 percent, smokers accounting for 7 percent, and inhalers (snorters) accounting for 5 percent (exhibit 4). When asked whether they had used any drug intravenously in the year prior to admission, 90 percent of all primary heroin admissions reported that they had used needles to administer one or more

drugs intravenously at least once during the specified time period.

Eighteen percent of all primary heroin admissions were homeless at time of admission, up slightly from 16 percent in the second half of 2004. Only 3.2 percent were referred by the court or criminal justice system. Primary heroin users were most likely to have self-referred for the current treatment episode (74 percent of all heroin admissions). In a measure of current legal status, the majority (74 percent) were not involved at all with the criminal justice system. This corroborates with the very low proportion of criminal justice referrals among primary heroin users. Twenty-two percent indicated that they had never received treatment for their heroin problem, whereas 48 percent reported three or more primary heroin treatment episodes. Forty-four percent of all primary heroin admissions graduated from high school (stable from the last reporting period), and, at the time of admission, 24 percent were employed full- or part-time.

Heroin injectors were more likely than their inhaler or smoker counterparts to be Hispanic (51 percent), homeless (18 percent), age 36 or older (77 percent), or to have been through four or more prior treatment episodes (39 percent). Heroin smokers were more likely than heroin inhalers or injectors to be male (76 percent), White non-Hispanic (58 percent), employed full- or part-time (37 percent), or to have a high school diploma/GED (51 percent).

Los Angeles County-based California Poison Control System calls involving exposure to heroin fluctuated between 15 and 22 from 2001 to 2004 (exhibit 5a). In 2005, slightly more heroin exposure calls were reported ( $n=25$ ), up from 22 in 2004. Between January and December 2005, 75 percent of the heroin-exposed callers were male, and 42 percent were between the ages of 26 and 54. An additional 25 percent of the callers were between the ages of 18 and 25.

A total of 415 heroin arrests were made within the city of Los Angeles from January 1 to June 30, 2005. This represented a 26-percent increase from the number of heroin arrests made during the same timeframe in 2004. Heroin arrests accounted for approximately 2.2 percent of all narcotics arrests made from January to June 2005.

Forty-two pounds of heroin were seized within the city of Los Angeles in 2005, an increase of 17 percent compared with the amount seized during 2004. The street value of all seized heroin accounted for approximately 1.5 percent of the total street value of all major drugs seized in 2005.

According to NFLIS data based on 60,613 analyzed items reported by participating laboratories within Los Angeles County between January 1, 2005, and December 31, 2005, only 4.5 percent (2,720) of all items analyzed were found to be heroin (similar to the amount recorded in CY 2004; exhibit 7). This small proportion corresponds to the small proportion of heroin (black tar and other forms) reported among Los Angeles Police Department seizures statistics.

Los Angeles remains the primary market for Mexican black tar heroin (NDIC 2005). The most common transportation method is by private and commercial vehicles transporting the drug from the southwest border via interstate highways. According to the DEA (2006), black tar heroin is usually smuggled into the country in amounts of 5 pounds or less. Further, Mexican black tar heroin remains the predominant type of heroin used by Los Angeles County users, as well as the type of heroin seized by law enforcement agencies throughout the State. Mexican criminal groups control the transportation and wholesale, midlevel, and retail activity (NDIC 2005). According to LA CLEAR, the wholesale price per kilogram of Mexican black tar heroin is approximately \$20,000 (the same price reported in the last several CEWG reports) (exhibit 8). The current midlevel range is \$400–\$700 per “pedazo” (Mexican ounce), which is up from the range reported in January 2006 (\$300–\$700); and the retail price is stable at \$90–\$100 per gram. A regular ounce is 28.5 grams, whereas a pedazo is 25.0 grams. Black tar heroin available on the streets of Los Angeles ranges in purity from 20 to 25 percent.

Mexican brown powder heroin sells for a wholesale price of \$25,000 per kilogram, when available in the area. The DEA reports that law enforcement officials normally encounter ethnic West African and Southeast Asian nationals in the distribution and transportation of Asian heroin in Los Angeles. Retail distribution of Southeast Asian heroin remains limited, but it is associated with a wholesale price range of \$70,000–\$80,000 per 700–750 grams. The lack of China white on the streets is related, in part, to local users’ preference for black tar.

Reports that high purity Colombian heroin is now available in counties surrounding Los Angeles are supported by the recent seizure of 200 grams of Colombian heroin in Ventura County (DEA 2006). The wholesale price for a kilogram of Colombian heroin is \$86,000–\$100,000 (exhibit 8). This type of heroin has a very high purity level of 94 percent. Southwest Asian opium is associated with a cost of \$650–\$800 for an 18-gram stick.

In accordance with weighted CHKS data for the 2003–2005 school years (exhibit 9), 2.5 percent of all Los Angeles County secondary school students (including 7th, 9th, and 11th graders, and a small sample of nontraditional students) who responded to the survey had ever used heroin. A breakdown of the data by grade level illustrated that a higher percentage of 9th than 11th graders reported lifetime heroin use (2.5 percent and 1.9 percent, respectively). When asked about past-6-month use of other drugs, heroin, or sedatives, 7.1 percent of 9th graders and 5.0 percent of 11th graders responded in the affirmative (exhibit 10).

### Other Opiates/Narcotics

Other opiates/synthetics continue to constitute a small percentage of all Los Angeles County treatment admissions (exhibit 2). In the recent past, the peak year for other opiates/synthetics was calendar year 2003, when 2.3 percent of Los Angeles County admissions were for primary other opiate/synthetic abuse (exhibit 3). In the second half of 2004, other opiates/synthetics represented 1.6 percent of all admissions (373 admissions). More recently, in the first half of 2005, the percentage of primary other opiate/synthetic admissions decreased to less than 1 percent of all admissions (203 admissions; 0.9 percent). In the second half of 2005, the number and percentage rebounded a bit (280 admissions; 1.2 percent of the total). Despite the small overall numbers of admissions, it will be important to carefully monitor future treatment admissions data, given the increase in prescription opiate abuse/misuse in other major CEWG areas. Other opiates/synthetics admissions were typically male (61 percent), White non-Hispanic (55 percent), and age 36–50 (49 percent). None of the primary other opiate/synthetic admissions were younger than 18. Interestingly, 79 percent administered other opiates/synthetics orally, but an additional 17 percent reported smoking them. Sixty percent of primary other opiate/synthetic admissions reported no secondary or tertiary substance use. An additional 7 percent reported secondary alcohol use, 7 percent reported secondary heroin use, and 6 percent reported secondary cocaine/crack use. Reports of primary non-prescription methadone admissions continued to be minimal among Los Angeles County treatment admissions (39 admissions, representing 0.2 percent of all admissions).

According to reports from many CEWG representatives, nonheroin opiate users across the Nation have a definite preference of oxycodone (i.e., OxyContin) over hydrocodone (i.e., Vicodin). In Los Angeles, however, hydrocodone is much more likely to show up in recent drug indicator data than oxycodone. This

is evidenced by the fact that among NFLIS exhibits in 2005, 50 percent of the analgesic samples were found to be hydrocodone (vs. 9 percent oxycodone); among DAWN opiate/opioid drug reports (January–June 2005), 38 percent were hydrocodone (vs. 6 percent oxycodone); and among poison control calls for opiate/analgesic exposure (January–December 2005), 53 percent were for hydrocodone (vs. 9 percent for oxycodone).

Los Angeles County-based California Poison Control System calls involving exposure to opiates/analgesics have increased consistently in recent years, from a low of 45 in 2001 to a high of 70 in 2004 (exhibit 5b). In 2005, 68 opiate/analgesic exposure calls were reported, which may indicate a stabilizing in the upward trend line seen since 2001. Between January and December 2005, calls involving an exposure to hydrocodone were more likely than calls involving an exposure to oxycodone (36 calls vs. 6 calls, respectively).

DEA ARCOS data on sales of prescription opiates to hospitals and pharmacies in the Los Angeles County area indicate that the sale of codeine and meperidine have steadily decreased each year, with a total decrease (between calendar years 2001 and 2005) of 28 percent for codeine and 38 percent for meperidine (exhibit 12). Methadone sales have steadily increased each year, with a total increase of 104 percent from 2001 to 2005. It is important to mention that these data for methadone only include prescriptions for the treatment of pain by physicians. They do not include methadone provided in local narcotic treatment programs. Sales also increased for other prescription opiates between 2001 and 2005, including oxycodone (62 percent), hydromorphone (65 percent), hydrocodone (40 percent), morphine (48 percent), and fentanyl base (115 percent). In terms of total drug amounts (in grams) distributed in Los Angeles, codeine, hydrocodone, and morphine were distributed in the largest amounts, when compared with the grams of other opiates distributed (data not shown).

Approximately 1,375 of the 60,613 items analyzed and reported to NFLIS between January 1 and December 31, 2005, were identified as pharmaceuticals/prescription/noncontrolled nonnarcotic medications (as opposed to illicit substances). Of those, a large proportion (656 items; 48 percent) were found to be narcotic/other analgesics (exhibit 7). The most frequently cited analgesics were hydrocodone (330 items; 50 percent) and codeine (111; 17 percent). In fact, hydrocodone and codeine were in the top 10 substances reported in the local NFLIS data. Other analgesics identified included oxycodone (58 items), methadone (35 items), and propoxyphene (28 items). To put these

numbers/percentages into perspective, analgesics accounted for 1.1 percent of all items analyzed by participating Los Angeles County laboratories.

In the Los Angeles area, Demerol, Dilaudid, and hydrocodone are among the principal prescription medications abused (DEA 2006). Current investigations indicate that diversion of hydrocodone and oxycodone continues to be a problem in California. Several methods of diversion exist, including illegal sale and distribution by health care professionals, doctor shopping, forged prescriptions, employee theft, pharmacy and in-transit theft, and the Internet (DEA 2006). Fentanyl and codeine were also identified as being among the commonly abused and diverted pharmaceuticals in California.

Retail prices of several types of pharmaceuticals have remained stable for the last few years. The two exceptions to this statement are Dilaudid (hydromorphone), which now retails for \$20–\$60 per 4-milligram tablet (down from \$100), and Percocet, which now sells for \$1–\$5 per 5-milligram tablet (down from \$5–\$10). For more detail regarding the street price of particular diverted medications, please refer to exhibit 8.

### **Methamphetamine/Other Amphetamines**

The proportion of primary methamphetamine admissions to Los Angeles County treatment and recovery programs increased further from the first to second half of 2005, surpassing heroin for the third 6-month period in a row (exhibit 2). The 6,483 primary methamphetamine admissions reported in July–December 2005 accounted for 26.7 percent of all admissions (compared with 25.6 percent in the first half of 2005). Methamphetamine is the one illicit drug that has continually increased in both number and percent of all treatment admissions over the past 4 years (exhibit 3). Compared with other major illicit drug admissions, primary methamphetamine admissions had the largest proportion of females (42 percent, up from 40 percent), Asian/Pacific Islanders (3 percent), 18–25-year-olds (31 percent), and 26–35-year-olds (33 percent) (exhibit 4). In the second half of 2005, an additional 64 admissions were associated with primary amphetamine use (0.3 percent of all admissions; data not shown).

At one time, White methamphetamine users were the predominant racial/ethnic group. For the past few years, however, primary methamphetamine admissions have been increasingly comprised of Hispanics, with fewer and fewer admissions occurring among Whites. In the second half of 2004, 47 percent of the primary methamphetamine admissions were Hispanic, whereas

39 percent were White non-Hispanic. In first half of 2005, the racial/ethnic gap continued to widen, with Hispanics accounting for 54 percent of all primary methamphetamine admissions, compared with 36 percent for Whites. In the second half of 2005, the ethnic distribution appears to have stabilized; once again, Hispanics represented 54 percent of the admissions, compared with 37 percent for Whites.

In the second half of 2005, 18–25-year-olds and 26–30-year-olds accounted for 31 percent and 32.6 percent, respectively, of all primary methamphetamine admissions. The 21–25 age group was the modal group (22.3 percent). Primary methamphetamine admissions tended to most frequently report secondary abuse of marijuana (28 percent) or alcohol (23 percent).

As shown in exhibit 4, smoking continued as the most frequently mentioned way for primary methamphetamine admissions to administer the drug. In 1999, one-half of all primary methamphetamine admissions smoked the drug. By the second half of 2005, 73 percent reported this mode of administration. Conversely, the proportions of injectors and inhalers continued to decline, from 15.2 and 29.5 percent, respectively, in 1999, to 6 and 19 percent, respectively, in the second half of 2005.

Like primary methamphetamine admissions, the mode of other amphetamine administration has shifted in recent years, as well. Seventy-two percent of all other amphetamine admissions in the second half of 2005 smoked amphetamines, followed by 13 percent who inhaled, 14 percent who ingested orally, and 1.6 percent who injected (which represents a sizable shift from the 7.5 percent reported in the last report). In 1999, a lower percentage smoked, and higher percentages injected, inhaled, and used other amphetamines orally.

Eleven percent of all primary methamphetamine admissions reported past-year intravenous use of one or more drugs. Approximately one-fifth of the primary methamphetamine treatment admissions were homeless (22.1 percent), and 13 percent were referred by the court or criminal justice system (down from the 18.1 percent in the second half of 2004). Forty-nine percent were entering treatment for the first time. Thirty-nine percent had graduated from high school, and, at the time of admission, 19 percent were employed full- or part-time (exhibit 4).

Methamphetamine injectors were considerably more likely than their inhaler or smoker counterparts to be male (75 percent, up from 69 percent reported in January 2006), White non-Hispanic (70 percent), 36 or older (43 percent), homeless (37 percent), on pa-

role (21 percent), or to have been through four or more prior treatment episodes (18 percent). Interestingly, injectors were more likely than their counterparts to have a high school diploma or GED (43 percent vs. 36–39 percent). They were, by far, the most impaired of all primary methamphetamine abusers. Methamphetamine smokers were equally as likely as methamphetamine inhalers to be female (43 percent). Smokers were more likely than injectors or inhalers to be age 20 or younger (19 percent) or on probation at the time of admission (44 percent). Lastly, methamphetamine inhalers were more likely than their counterparts to be Hispanic (63 percent), to have used methamphetamine for the first time at age 31 or older (17 percent), or to be employed part- or full-time at admission (25 percent). An interesting difference emerged with regards to the percentage of Black non-Hispanics. In the past, no difference existed among the three modes of administration with regards to the percentage of Blacks—about 3 percent of the methamphetamine injectors, snorters, and smokers were Black. But in the second half of 2005, 4.2 percent of the methamphetamine injectors were Black, compared with 3.4 percent of the methamphetamine smokers and 2.9 percent of the methamphetamine snorters.

California Poison Control System calls involving exposure to methamphetamine/amphetamine among Los Angeles County residents have fluctuated over the years, from 63 calls in 2001 to approximately 50 to 55 calls in 2002 through 2004 (exhibit 5a). In 2005, methamphetamine/amphetamine-related exposure calls hit a 5-year high of 70 calls. Between January and December 2005, a much higher percentage of callers reporting exposure to methamphetamine or other amphetamines were male (70 percent) than female (29 percent), and 59 percent were between the ages of 18 and 34 (exhibit 6). In addition to calls relating to methamphetamine and amphetamine exposure, a total of 45 Ritalin/Adderall exposure calls were recorded between January 2001 and December 2005, with a peak in 2002 (11 calls).

Throughout the first 6 months of 2005, 369 amphetamine arrests were made within the city of Los Angeles, signaling a 67-percent increase over the number of arrests made during the same period in 2004 (221 arrests). Despite this large increase in the overall number of amphetamine arrests, as a class, such arrests continued to account for about 2 percent of the total. Arrests for methamphetamine are included in the category “other narcotics.” In the first half of 2005, 9,807 arrests for other narcotics were made (many of which could be attributable to methamphetamine, but there is no way of knowing

from the LAPD report), accounting for 51 percent of all arrests.

While methamphetamine is not reported separately in citywide drug arrests, it is broken out in citywide seizures. Citywide methamphetamine seizures experienced a modest increase (8 percent), from 356 pounds seized in calendar year 2004 to 385 pounds seized during 2005. The street value of the seized methamphetamine accounted for approximately 13 percent of the total street value of all major drugs seized between January and December 2005.

DEA ARCOS data on sales of prescription stimulants to hospitals and pharmacies in the Los Angeles County area indicate that sales of Adderall (DL-Amphetamine), Dexedrine (D-Amphetamine), and Ritalin (methylphenidate) have steadily increased each year since 2001. Adderall sales had the greatest total percent change (75 percent) from 2001 to 2005. Sales of Dexedrine increased 24 percent and sales of Ritalin increased 41 percent during the same 5-year period (exhibit 12). In terms of total drug amounts (in grams) distributed in Los Angeles, Ritalin was distributed in the largest amount when compared to the grams of the other stimulants distributed (data not shown).

According to NFLIS data based on 60,613 analyzed items reported by participating laboratories within Los Angeles County between January and December 2005, 32.4 percent (19,617) of all items analyzed were found to be methamphetamine/amphetamine (exhibit 7). Methamphetamine accounted for the second largest proportion of samples positively identified by NFLIS. An additional 13 items were identified as pseudoephedrine, and 12 items were methylphenidate and phentermine (each accounting for less than one-tenth of a percent of all exhibits).

The DEA reports that methamphetamine is the number one law enforcement drug threat in California (2006). Mexican criminal groups based in both Mexico and California control the wholesale and midlevel distribution of methamphetamine and distribute the drug via private vehicles and commercial trucks. A secondary trafficking group, composed primarily of Caucasians, operates small, unsophisticated laboratories (DEA 2006).

The wholesale price per pound of methamphetamine ranged from \$5,000 to \$6,000 in the second half of 2005 (exhibit 9), which is similar to the range reported in January 2006, but still higher than the wholesale price reported in 2002–2004 (\$3,700 to \$5,000). The midlevel price was \$300 per ounce (down from \$500 to \$800 reported in June 2005). According to one intelligence source, the purity of

finished powder methamphetamine available in the Los Angeles area remains at approximately 30–35 percent. Given the many different production “recipes” and the multiple types of methamphetamine entering into and staying in the Los Angeles area (locally produced and Mexican produced), however, it is very possible that there is a wide range of purity (especially since such a high percentage of users report smoking methamphetamine).

Crystal methamphetamine, which is much more pure than powder methamphetamine, has a wholesale price of \$6,500–\$7,000 per pound in Los Angeles (still down from the range of \$8,000 to \$11,000 reported in June 2005 and the range of \$6,500 to \$11,000 reported in January 2006). The midlevel price for an ounce of crystal methamphetamine is \$600–\$800, which is identical to the range reported in January 2006. At the retail level, crystal methamphetamine sells for \$20 per one-quarter gram, \$40–\$50 per 1/32 ounce, \$60–\$70 per 1/16 ounce, and \$100–\$125 per 1/8 ounce. A double case of pseudoephedrine (17,000 60-milligram tablets per case) sells for \$3,250–\$4,000.

Clandestine laboratory incidents (which include lab seizures, dumpsites, and chemical/glass/equipment) have decreased consistently in both the LA HIDTA and in California. In 1999, 2,090 lab incidents were reported in California (1,187 of which occurred in the 4-county LA HIDTA region). By 2005, there were just 433 laboratory incidents reported in California (127 in the LA HIDTA). Despite the decrease in the number of local lab incidents, the availability of finished methamphetamine has remained stable in Los Angeles County.

According to EPIC’s National Clandestine Laboratory Seizure System, California had the sixth highest number of laboratory-only seizures in 2005 (256), following Missouri (709), Tennessee (469), Indiana (365), Kentucky (334), and Illinois (317). Within California, the Los Angeles HIDTA accounted for 38 percent of all seizures made in California (97 of 256 total seizures). The Central Valley HIDTA (covering Fresno, Kern, Madera, Merced, Sacramento, Stanislaus, and Tulare counties) accounted for 24 percent of all labs seized; the Northern California HIDTA (covering Alameda, Contra Costa, Lake, Marin, Monterey, San Francisco, San Mateo, Santa Clara, Santa Cruz, and Sonoma counties) accounted for 14 percent; and the Southwest Border HIDTA (covering San Diego and Imperial counties) accounted for 5.5 percent. Of the 4 counties in the LA HIDTA, Los Angeles County had the second highest number of seizures during that time period (25), lagging behind



San Bernardino County (40). Riverside County (22) and Orange County (10) rounded out the HIDTA.

Even though five States exceed California in terms of laboratory seizures, California leads the country in the number of domestic “superlabs.” Twenty-nine of 38 U.S. superlabs (76 percent) seized in 2005 were located in California. The LA HIDTA reported the highest percentage of superlabs seized throughout California (10 out of 29 superlabs seized between January 1 and December 31, 2005, or 34 percent). Within the LA HIDTA, Los Angeles County led with five superlab seizures, followed by Orange County (3) and San Bernardino County (2). Furthermore, the total (10) reported in the LA HIDTA exceeded the number of superlabs reported by all other 49 states (9 total).

The cost to clean up methamphetamine-related activities located in the LA HIDTA in 2005 totaled \$367,802. Los Angeles County had the highest clean-up costs (\$142,159, or 39 percent of the total). An additional 51 percent of this total corresponds to the cost of cleaning up Riverside and San Bernardino County laboratories (25 percent for San Bernardino and 27 percent for Riverside County). It is important to note that these cleanup figures do not encompass building and environment remediation, which each cost taxpayers even more money.

Nationally, in 2005, 1,011 children were “affected” by methamphetamine laboratories. Approximately 4 percent of the affected children resided in California. Within California, 25 of the 42 (60 percent) affected children resided in the 4 LA HIDTA counties. The highest proportion was reported in San Bernardino County (10 of the 25 children), followed by Los Angeles County (7), Orange County (5), and Riverside County (3). It is important to note that these numbers are underreported, due to differences in county- and State-level reporting procedures.

According to weighted CHKS data for the 2003–2005 school years (exhibit 9), 6.5 percent of all Los Angeles County secondary school students (including 7th, 9th, and 11th graders, and a small sample of non-traditional students) who responded to the survey had ever used methamphetamine, and 2.8 percent were current methamphetamine users (defined as any use in the past 30 days). A breakdown of the data by grade level illustrated that among responding 9th graders, 4.8 percent had ever used methamphetamine and 2.4 percent were current users. A higher percentage of 11th than 9th graders reported lifetime methamphetamine use (6.4 percent); 6.6 percent of all female respondents reported lifetime methamphetamine use, compared with 6.0 percent of males.

This is the first year that the percentage of female methamphetamine users outweighed the percentage of males. When asked about past-6-month use of cocaine, methamphetamine, or other stimulants, 7.0 percent of 9th graders and 6.2 percent of 11th graders responded in the affirmative (exhibit 10).

According to long-term trends calculated from CHKS data spanning over the most recent 6 school years (exhibit 11), the pattern of past-30-day methamphetamine use among responding secondary school students was similar to patterns seen for cocaine and lysergic acid diethylamide (LSD)/other psychedelics. From 1999–2000 to 2001–2002, past-30-day methamphetamine use decreased consistently from the peak level of 4.6 percent in 1999–2000 to 4.1 percent in 2001–2002. In 2002–2003, the percentage of current methamphetamine users increased slightly to 4.3 percent, but it decreased to 3.7 percent in 2003–2004 and to 2.7 percent (the lowest level yet) in 2004–2005.

### **Marijuana**

The number of primary marijuana treatment admissions has fluctuated over several semiannual reporting periods (exhibit 2), but the percentage of the total has remained somewhat fixed between 13 and 16 percent. In the second half of 2005, 3,640 primary marijuana admissions were reported in Los Angeles County (representing a 10-percent decrease from the 4,041 admissions reported in the first half of 2005). As a percentage of the total, marijuana accounted for 15 percent of all admissions (down more than 1 percentage point from the percentage reported in January–June 2005). Like many of the other major drugs of abuse, the user demographics of primary marijuana admissions were relatively stable in the second half of 2005. Seventy-two percent of the primary marijuana admissions were male (down from 76 percent), and individuals younger than 18 constituted 50 percent of these admissions (exhibit 4). Primary marijuana admissions were most likely to be Hispanic (51 percent), followed by Black non-Hispanics (31 percent, up from 27 percent) and White non-Hispanics (14 percent).

Alcohol was identified as a secondary drug problem for 39 percent of the primary marijuana admissions in the second half of 2005. An additional 15 percent reported methamphetamine, and 7 percent reported cocaine/crack as their secondary drug problem. Compared with other major illicit drug admissions, primary marijuana admissions had the largest proportion of users age 17 and younger (50 percent). When asked whether they had used any drug intravenously in the year prior to admission, 1.3 percent of all pri-

mary marijuana admissions answered affirmatively (exhibit 4).

Approximately 9 percent of the primary marijuana treatment admissions in the second half of 2005 were homeless at the time of admission, and 15 percent were referred to treatment by the court or criminal justice system (a continual decrease from the 21 percent of primary marijuana admissions referred by the criminal justice system in the earlier part of 2005). Seventy-four percent were entering treatment for the first time (compared with 69 percent in the second half of 2004). Twenty-three percent had graduated from high school, and, at the time of admission, 13 percent were employed full- or part-time (exhibit 4). Such characteristics reflect the fact that just under one-half of all primary marijuana admissions were younger than 18 at the time of admission.

California Poison Control System calls involving exposure to marijuana among Los Angeles County residents were stable at 35–39 calls between 2001 and 2003 (exhibit 5a). In 2004, marijuana-related exposure calls decreased to 26 calls. In 2005, however, the number of marijuana exposure calls increased again to 30 calls. In calendar year 2005, 53 percent of the marijuana-exposed callers were male (down from 67 percent), and 73 percent were age 25 or younger.

A total of 3,258 marijuana arrests were made within the city of Los Angeles in the first 6 months of 2005; this number is stable when compared with the number of marijuana arrests made during the same time period in 2004 (3,151). Marijuana arrests accounted for approximately 17 percent of all narcotics arrests made between January 1 and June 30, 2005.

Despite a recent decrease in marijuana-specific seizures, the drug continues to dominate drug seizures in the city of Los Angeles. The amount of marijuana seized decreased more than 83 percent, from 31,758 pounds in 2004 to 5,331 pounds in 2005. In calendar year 2005, the amount of marijuana seized accounted for 63 percent of the total weight of drugs (in pounds) seized. Cocaine was a distant second, accounting for an additional 32 percent of the total weight. The street value of the seized marijuana accounted for approximately 18 percent of the total street value of all major drugs seized in 2005.

According to NFLIS data based on 60,613 analyzed items reported by participating laboratories within Los Angeles County between January and December 2005, 23 percent (13,864) of all items analyzed were

found to be marijuana/cannabis (exhibit 7). Cannabis was the third most frequently identified substance in Los Angeles County, following cocaine/crack and methamphetamine.

The wholesale price of Mexican-grade marijuana ranges from \$300 to \$340 per pound (stable since the January 2006 report; exhibit 8). The midlevel and retail prices of commercial grade marijuana are \$75–\$100 per ounce (compared with \$25 to \$100 in January 2006) and \$5–\$10 per gram. The wholesale price of domestic mid-grade marijuana is \$750 per pound, down from a range of \$1,000 to \$1,200. Midlevel and retail prices are \$120–\$150 per ounce (the former lower range was \$50) and \$25 per gram. The wholesale price of high-grade sinsemilla is stable at \$2,500–\$6,000 per pound. An ounce of sinsemilla sells for \$300–\$600, and one-eighth ounce sells for \$60–\$80.

A pound of BC Bud, which would cost approximately \$1,500 in Vancouver, has a wholesale per pound value of \$6,000 in Los Angeles.

According to weighted CHKS data for the 2003–2005 school years (exhibit 9), 21.6 percent of all Los Angeles County secondary school students (including 7th, 9th, and 11th graders, and a small sample of non-traditional students) who responded to the survey had ever used marijuana, and 10.7 percent were current marijuana users (defined as any use in the past 30 days). A breakdown of the data by grade level illustrated that among responding 7th graders, 7.5 percent had ever used marijuana and 4.2 percent were current marijuana users. A higher percentage of 9th graders than 7th graders and a higher percentage of 11th graders than 9th graders reported marijuana use in the past 30 days. When asked about past-6-month use of marijuana, 8.0 percent of 7th graders, 18.6 percent of 9th graders, and 25.6 percent of 11th graders responded in the affirmative (exhibit 10).

According to long-term trends calculated from CHKS data spanning over the 6 most recent school years (exhibit 11), the pattern of past-30-day marijuana use among responding secondary school students was more likely than the use of many other drugs, but slightly less likely than binge drinking. Past-30-day marijuana use had decreased consistently from the peak level of 13.2 percent seen in 1999–2000 to 10.3 percent in 2003–2004. In 2004–2005, however, the percentage of secondary school students in Los Angeles reporting lifetime marijuana use climbed slightly to 11.1 percent.

## Club Drugs

There continues to be a lack of comprehensive indicator data relating to the use and abuse of club drugs in Los Angeles County.

California Poison Control System calls involving exposure to methylenedioxymethamphetamine (MDMA, ecstasy) among Los Angeles County residents had been decreasing consistently over recent years, from a high of 50 in 2001 to a low of 16 in 2003 (exhibit 5a). In 2004, the number of ecstasy-related exposure calls increased slightly to 19 calls, and in 2005, there were 20 ecstasy calls reported. During calendar year 2005, more callers reporting exposure to ecstasy were female (65 percent) than male (30 percent), and 50 percent were between the ages of 13 and 25 (exhibit 6). In addition to calls relating to ecstasy exposure, a total of four gamma hydroxybutyrate (GHB) exposure calls, two ketamine calls, and one Rohypnol call were recorded between January and December 2005 (exhibit 5a).

The California Poison Control System also kept track of calls relating to Coricidin HBP and dextromethorphan (DXM) exposures. Between January and December 2005, 42 Coricidin HBP calls and 17 DXM calls were logged in the system (exhibit 5b). Fifty-two percent of Coricidin HBP calls and 59 percent of DXM calls were male. Furthermore, 93 percent of the Coricidin HBP calls and 53 percent of the DXM calls were made because of exposure to individuals younger than 18. Those individuals age 18–25 represented an additional 7 percent of the Coricidin HBP calls and 6 percent of the DXM calls.

According to NFLIS data based on 60,613 analyzed items reported by participating laboratories within Los Angeles County during calendar year 2005, less than 1 percent (511) of all items analyzed were found to be MDMA, GHB, ketamine, or Rohypnol (exhibit 7). Of those four club drugs, MDMA was most likely to be detected; it represented 84 percent of the club drug samples analyzed by NFLIS. GHB and its analogues, gamma butyrolactone (GBL) and 1,4-butanediol (1,4BD), represented an additional 11 percent of the samples.

The DEA reports that MDMA is widely available in Los Angeles, one of the three major gateway cities for the influx of MDMA into the country (Miami and New York are the other two cities).

At the retail level, ecstasy usually sells for \$10–\$15 per tablet (exhibit 8). In Los Angeles, ecstasy “boats” continue to be mentioned. A boat contains 1,000 MDMA pills and sells for \$6,000 (compared with \$8,000 that was reported in June 2004). Flunitraze-

pam (Rohypnol), when available, has a retail value of \$6–\$10 for a 1-milligram pill. On the street, ketamine sells for \$100–\$200 per 10-milliliter vial. In addition, ketamine retails for \$20 for two-tenths of a gram of powder. The wholesale price for GHB is \$275–\$350 per gallon, and a liter sells for \$80–\$100. A 16-ounce bottle of GHB, which once ranged from \$65 to \$100, now sells for \$120. Capfuls can still be purchased for \$5–\$20 each. The vast majority of GHB users ingested the drug as a liquid, either in straight shots or mixed with a drink. When available, GBL sells for \$600 per liter.

According to weighted CHKS data for the 2003–2005 school years (exhibit 9), 4.9 percent of all Los Angeles County secondary school students (including 7th, 9th, and 11th graders, and a small sample of non-traditional students) who responded to the survey had ever used ecstasy. A higher percentage of 11th graders (4.9 percent) than 9th graders (3.8 percent) reported lifetime ecstasy use. Current use of ecstasy was not assessed, although a question regarding past-6-month use of psychedelics, ecstasy, or other club drugs was included in the survey. Overall, 7 percent of all respondents reported use of these drugs (exhibit 10). By grade, 6.7 percent of 9th graders and 5.3 percent of 11th graders answered in the affirmative.

## Phencyclidine and Hallucinogens

Primary PCP treatment admissions accounted for 0.5 percent of all admissions ( $n=128$ ) in the latter half of 2005 (exhibit 2). The proportion of PCP admissions among all admissions has been stable for several years, but the overall number of PCP admissions has fluctuated since the late 1990s. From 1999 to the first half of 2003, the number of admissions increased 89 percent. In the second half of 2003, however, the number of PCP admissions decreased slightly (16 percent) to 262 admissions, and it continued to decrease further (12 percent) in the first half of 2004 (to 230 admissions) and in the second half of 2004 (to 135 admissions, a 41-percent decrease from the first half of the year). In the first half of 2005, there was a very slight upturn in the number of PCP admissions, representing an 11-percent increase in number. But in the second half of 2005, the number decreased again (7 percent) to 128 admissions (exhibit 2). Alcohol (22 percent), cocaine/crack (20 percent), and marijuana (18 percent) were the three most frequently reported secondary drugs among primary PCP admissions. An overwhelming majority (98 percent) of the primary PCP admissions smoked the drug. About 1 percent reported oral ingestion or inhalation (snorting). There were no notable changes from the previous reporting period in terms of user demographics. Other hallucinogens, such as LSD, peyote, and mescaline, con-

tinued to account for approximately 0.1 percent of the total treatment admissions.

California Poison Control System calls involving exposure to PCP among Los Angeles County residents fluctuated between 6 and 17 calls from 2001 to 2004 (exhibit 5a). In calendar year 2005, there was a slight increase in PCP-related exposure calls to nine.

Seventy PCP arrests were made within the city of Los Angeles in the first 6 months of 2005, signaling a 27-percent decline from the same timeframe in 2004 (96 arrests). Like amphetamine arrests, PCP arrests accounted for a very low proportion of all arrests (less than 1 percent).

The street value of the PCP seized in 2005 represented approximately 3 percent of the total street value of all drugs seized during that year. The total amount of PCP seized from January through December 2005 (13 pounds) was 50 percent lower than the amount seized during the same period in 2004 (26 pounds).

According to NFLIS data based on 60,613 analyzed items reported by participating laboratories within Los Angeles County between January and December 2005, 0.5 percent ( $n=324$ ) of all items analyzed were found to be PCP, and a mere 7 items were found to be LSD (exhibit 7).

The wholesale price for a gallon of PCP remains at the high level reported in January 2006, ranging from \$15,000 to \$20,000 (exhibit 9). The ounce price, however, remains at the decreased range of \$300–\$350. A sherm cigarette dipped in liquid PCP continues to sell for \$10–\$20, indicating a decrease from the range of \$20 to \$30 reported in June 2005 and the \$10 to \$30 range reported in January 2006. According to the DEA, the LA area is the primary source for the majority of PCP found in the United States.

A sheet of approximately 100 doses of LSD has a wholesale price range of \$150–\$200. Typically, a single dose sells for \$5–\$10. At the retail level, psilocybin mushrooms cost about \$20 per one-eighth ounce.

According to weighted CHKS data for the combined 2003–2005 school years, 5.2 percent of all Los Angeles County secondary school students (including 7th, 9th, and 11th graders, and a small sample of nontraditional students) who responded to the survey had ever used LSD or another psychedelic, and 2.1 percent had used LSD/other psychedelics in the past 30 days (exhibit 9). A breakdown of the data by grade level

illustrated that among responding 9th graders, 3.9 percent had ever used LSD/other psychedelics, and 2.0 percent were current users. Among 11th graders, 5.3 percent had ever used LSD/other psychedelics, and 1.6 percent used a psychedelic at least once within the past 30 days.

According to long-term trends calculated from CHKS data spanning over the last 6 school years (exhibit 11), the pattern of past-30-day LSD/other psychedelics use among responding secondary school students (in grades 7, 9, and 11) was similar to usage patterns seen with cocaine and methamphetamine. Current use of LSD/other psychedelics has been trending downward since the late 1990s, to a low of 2.8 percent in 2002–2003. In 2003–2004, the percentage increased ever so slightly to 2.9 percent of all respondents. But in 2004–2005, only 2 percent of the respondents indicated that they had used LSD/other psychedelics in the recent past.

#### ***Benzodiazepines, Barbiturates, and Sedative/Hypnotics***

In the second half of 2005, treatment and recovery program admissions associated with primary barbiturate, benzodiazepine, or other sedative/hypnotic abuse continued to account for less than 1 percent of all admissions in Los Angeles County.

Los Angeles County-based California Poison Control System calls involving exposure to benzodiazepines fluctuated between 52 and 86 calls from 2001 to 2004 (exhibit 5b). Benzodiazepine-related calls had been on an upswing from 2002 (52 calls) to 2004 (86 calls). In 2005, however, only 35 benzodiazepine exposure calls were reported, which may very well indicate a decrease from the number of calls seen in previous years. Between January and December 2005, 12 of the benzodiazepine-related exposure calls were for clonazepam, 9 were for alprazolam, and 5 were for diazepam. In addition to calls for benzodiazepine exposures, a total of 12 antidepressant exposure calls and 3 antipsychotic exposure calls were reported in calendar year 2005.

Approximately 1,375 of the 60,613 items analyzed and reported to the NFLIS system in CY 2005 were identified as pharmaceuticals/prescription/noncontrolled nonnarcotic medications (as opposed to illicit substances). Of those, roughly 23 percent (314 items) were found to be benzodiazepines (exhibit 7). The three most frequently cited benzodiazepines were diazepam (111 items; 35 percent), alprazolam (99 items; 32 percent), and clonazepam (83 items; 26 percent).

Two primary methods of attaining prescription drugs without a prescription in the Los Angeles metropolitan area are either doctor shopping or prescription forgery (DEA 2006). Further, according to DEA, diazepam (Valium) remains one of several principal prescription medications abused by residents. LA CLEAR reports that Valium retails for \$1 per 5-milligram tablet (exhibit 8), which is stable since the June 2004 report. Xanax retails for \$1 per 4-milligram tablet.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The cumulative total of adult/adolescent AIDS cases reported in Los Angeles County through December 31, 2005, surpassed the 50,000 mark for the first time ever (reaching 50,373). Of those cases, 762 were reported between July 1, 2005, and December 31, 2005. Currently, approximately 20,558 Los Angeles County residents are living with advanced HIV disease. Los Angeles County cumulative cases represent approximately 36 percent of the 139,449 cumulative cases in California and approximately 5 percent of the 944,306 cumulative cases nationwide. Of the cumulative cases reported in Los Angeles County, 46 percent were White, 31 percent were Hispanic, 20 percent were African-American, 44 percent were age 30–39, and 92 percent were male.

The proportion of newly diagnosed males solely exposed through injection drug use ranged between 4 and 6 percent from 1999 to 2005 (exhibit 13). The proportions for other exposure categories, such as the combination of male-to-male sexual contact and injection drug use, heterosexual contact, blood transfusion, and hemophilia/coagulation disorder, remained relatively stable since 1999. The proportion of men exposed to AIDS through male-to-male sexual contact has fluctuated slightly, from 66 percent in 1999, to a high of 68 percent in 2003, and then down to 56 percent in 2005. The proportion of male cases with an “other” or “undetermined” exposure category accounted for 30 percent of all male cases diagnosed in 2005. Since the 2005 data are preliminary, it is possible that some of the cases in the “other/undetermined” category will be transferred into the other exposure categories.

In 2005, 37 percent of all newly diagnosed female AIDS cases were associated with heterosexual contact. Female cases attributable to injection drug use fluctuated between 12 and 20 percent of all female cases over the years, and they now account for 14 percent. The proportion of female cases with an “other” or “undetermined” exposure category accounted for 49 percent of all female AIDS cases.

In Los Angeles County in 2005, approximately 7 percent of all AIDS cases involved injection drug use (alone) as the primary route of exposure. Among the 3,463 cumulative cases primarily attributable to injection drug use, 72 percent occurred among males. Whites are now the modal group of male injection drug users (IDUs) (accounting for 34 percent), followed by Hispanics (32 percent) and African-Americans (29 percent). Among female IDU AIDS cases, Whites and African-Americans each constituted about one-third of the cases; the percent of Hispanics was suppressed due to low numbers.

An additional 4 percent of the total cumulative cases were attributable to a combination of male-to-male sexual contact and injection drug use. Fifty percent of the male-to-male sexual contact and injection drug use cases were White.

In March 2006, information regarding alarming new HIV/AIDS trends and crystal methamphetamine use among California Latinos was released in California. Bienestar is a nonprofit community service agency committed to enhancing the health and well-being of the Latino community in Los Angeles County and other areas. According to Mario Guerrero, Bienestar’s public affairs manager, because of “new data revealing surprising numbers of day laborers engaging in unsafe sex for money and the spiraling crystal methamphetamine crisis among Latino men, AIDS advocates have pressed California lawmakers to refocus state HIV prevention efforts in response to the disproportionate growth in new HIV and AIDS cases among California’s Latinos.” A 2005 study conducted by Charles R. Drew University and Bienestar revealed that of 450 Latino day laborers, 38 percent reported that they had been approached for sex, and of those, 10 percent engaged in the requested sexual activities. Further, according to another study of 1,500 individuals, Los Angeles County HIV Epidemiology Program’s researcher Trista Bingham reported that “after adjusting for other traditional risk factors, newly diagnosed HIV-positive Latino men who have sex with men were almost nine times more likely to report crystal use than men without HIV.”

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**Exhibit 1. Population Characteristics, Los Angeles County and the State of California, by Percent: 2000 and 2005**

Population Characteristics	Los Angeles County	California
Population, 2005 estimate (N)	(9,935,475)	(36,132,147)
Population, percent change, April 1, 2000, to 2005	+4.4	+6.7
Population, year 2000 (N)	(9,519,338)	(33,871,648)
Persons younger than 5	7.7	7.3
Persons younger than 18	28.0	27.3
Persons age 65 and older	9.7	10.6
Female	50.6	50.2
White	48.7	59.5
Black or African-American	9.8	6.7
American Indian or Alaska Native	0.8	1.0
Asian persons	11.9	10.9
Native Hawaiian or Other Pacific Islander	0.3	0.3
Persons reporting some other race	23.5	16.8
Persons reporting two or more races	4.9	4.7
White, not Hispanic/Latino origin	31.1	46.7
Persons of Hispanic/Latino origin	44.6	32.4

SOURCE: U.S. Census Bureau, State and County QuickFacts

**Exhibit 2. Numbers and Percentages of Semiannual Treatment Admissions in Los Angeles County, by Primary Illicit Drug of Abuse: January 2003–December 2005**

Primary Drug	01/03–06/03 Number (%)	07/03–12/03 Number (%)	01/04–06/04 Number (%)	07/04–12/04 Number (%)	01/05–06/05 Number (%)	07/05–12/05 Number (%)
Cocaine/Crack	5,242 (19.3)	4,815 (18.2)	5,137 (18.1)	4,124 (17.8)	4,397 (17.6)	4,021 (16.6)
Heroin	6,891 (25.4)	6,704 (25.4)	6,942 (24.5)	5,341 (23.2)	4,870 (19.5)	5,127 (21.1)
Marijuana	3,669 (13.5)	3,452 (13.1)	3,812 (13.4)	3,318 (14.4)	4,041 (16.2)	3,640 (15.0)
Methamphetamine	4,961 (18.3)	5,095 (19.3)	5,840 (20.6)	5,395 (23.4)	6,392 (25.6)	6,483 (26.7)
PCP	314 (1.2)	262 (1.0)	230 (0.8)	135 (0.6)	150 (0.6)	128 (0.5)
Other Opi- ates/Synthetics	582 (2.2)	645 (2.4)	583 (2.1)	373 (1.6)	230 (0.9)	280 (1.2)
<b>Total Admissions</b>	<b>27,110</b>	<b>26,393</b>	<b>28,371</b>	<b>23,059</b>	<b>24,972</b>	<b>24,303</b>

SOURCE: California Alcohol and Drug Data System (CADDs)

**Exhibit 3. Numbers and Percentages of Annual Treatment Admissions in Los Angeles County, by Primary Illicit Drug of Abuse: 2002–2005**

Primary Drug	2002		2003		2004		2005	
	Number	(%)	Number	(%)	Number	(%)	Number	(%)
Cocaine/Crack	9,009	(19.3)	10,057	(18.8)	9,261	(18.0)	8,418	(17.1)
Heroin	14,863	(31.9)	13,595	(25.4)	12,283	(23.9)	9,997	(20.3)
Marijuana	5,502	(11.8)	7,121	(13.3)	7,130	(13.9)	7,681	(15.6)
Methamphetamine	7,145	(15.3)	10,056	(18.8)	11,235	(21.8)	12,875	(26.1)
PCP	415	(0.9)	576	(1.1)	365	(0.7)	278	(0.6)
Other Opiates/Synthetics	839	(1.8)	1,227	(2.3)	956	(1.9)	510	(1.0)
<b>Total Admissions</b>	<b>46,629</b>		<b>53,503</b>		<b>51,430</b>		<b>49,275</b>	

SOURCE: California Alcohol and Drug Data System (CADDs)

**Exhibit 4. Demographics of Treatment Admissions in Los Angeles County, by Primary Illicit Drug of Abuse and Percent: July–December 2005**

Demographics	Cocaine/ Crack	Heroin	Marijuana	Metham- phetamine	All Admissions
Gender					
Male	67.0	74.4	71.5	57.8	66.1
Female	33.0	25.6	28.5	42.2	33.9
Race/Ethnicity					
White, non-Hispanic	14.3	35.8	13.6	37.4	29.2
Black, non-Hispanic	57.2	10.3	30.5	3.4	21.9
Hispanic	24.7	48.9	51.2	53.6	43.6
American Indian	0.5	0.7	0.4	0.9	0.8
Asian/Pacific Islander	1.5	1.2	1.8	2.5	1.9
Other	1.9	3.1	2.5	2.4	2.6
Age at Admission					
17 and younger	1.0	0.4	50.0	8.7	13.2
18–25	8.7	6.7	23.4	31.0	16.7
26–35	19.8	18.1	13.3	32.6	21.5
36 and older	70.5	74.8	13.3	27.7	48.6
Route of Administration					
Oral	1.2	1.3	2.1	2.1	19.9
Smoking	85.7	7.1	98.4	72.6	50.7
Inhalation	11.9	4.5	0.8	18.5	8.6
Injection	0.6	86.9	0.0	5.8	20.0
Unknown/other	0.7	0.3	0.0	1.0	0.9
Secondary Drug	Alcohol	Cocaine/ Crack	Alcohol	Marijuana	Alcohol
Positive for Intravenous Drug Use in Past Year	4.0	89.5	1.3	10.9	23.6
Homeless	29.5	17.8	8.7	22.1	19.6
Employed Full- or Part-Time	15.6	23.5	12.9	19.2	18.0
Graduated from High School	43.6	43.8	23.1	38.6	37.7
Referred by Court/Criminal Justice System (Not Including SACPA <sup>1</sup> Referrals)	12.1	3.2	14.6	13.1	9.9
First Treatment Episode	43.1	21.6	74.2	49.0	47.9
<b>Total Admissions (N)</b>	<b>(4,021)</b>	<b>(5,127)</b>	<b>(3,640)</b>	<b>(6,483)</b>	<b>(24,303)</b>

<sup>1</sup>SACPA=Substance Abuse and Crime Prevention Act of 2000 (a.k.a., Proposition 36).

SOURCE: California Alcohol and Drug Data System (CADDs)

**Exhibit 5a. Numbers of Los Angeles County Poison Control System Exposure Calls for Major Substances of Abuse: 2001–2005**

Major Substance	2001	2002	2003	2004	2005	Cumulative
Cocaine/Crack <sup>1</sup>	66	77	97	74	60	374
Heroin <sup>1</sup>	15	20	17	22	25	99
Marijuana <sup>1</sup>	35	39	39	26	30	169
Methamphetamine/ Amphetamine <sup>2</sup>	63	51	54	54	70	292
Ecstasy (MDMA) <sup>1</sup>	50	33	16	19	20	138
Rohypnol/flunitrazepam <sup>1</sup>	4	4	1	4	1	14
GHB <sup>1</sup>	35	25	10	8	4	82
Ketamine <sup>2</sup>	2	3	1	3	2	11
PCP <sup>1</sup>	17	13	16	6	9	61
LSD <sup>1</sup>	2	6	1	2	1	12
Mushrooms <sup>1</sup>	1	0	2	0	0	3
Other hallucinogens <sup>1</sup>	0	2	2	3	6	13
Inhalants <sup>2</sup>	0	3	2	5	2	12
Other Illicit <sup>1</sup>	1	2	0	0	0	3
<b>Total</b>	<b>291</b>	<b>278</b>	<b>258</b>	<b>226</b>	<b>230</b>	<b>1,283</b>

<sup>1</sup>Includes calls for all exposure reasons.

<sup>2</sup>Includes calls for the following exposure reasons: intentional misuse, intentional abuse, intentional unknown, contamination/tampering, and other malicious.

SOURCE: California Poison Control System

**Exhibit 5b. Numbers of Los Angeles County Poison Control System Exposure Calls for Prescription and Over-the-Counter Medications and Common Household Substances: 2001–2005**

Substance <sup>1</sup>	2001	2002	2003	2004	2005	Cumulative
Antidepressants	8	12	15	10	12	57
Antipsychotics	5	5	4	11	3	28
<i>Benzodiazepines</i>	<i>(83)</i>	<i>(52)</i>	<i>(70)</i>	<i>(86)</i>	<i>(35)</i>	<i>(326)</i>
Alprazolam	14	8	12	14	9	57
Clonazepam	23	10	15	17	12	77
Diazepam	17	8	16	8	5	54
Other	29	26	27	47	9	138
Barbiturates	1	0	2	1	0	4
<i>Opiates/Analgesics</i>	<i>(45)</i>	<i>(62)</i>	<i>(67)</i>	<i>(70)</i>	<i>(68)</i>	<i>(312)</i>
Codeine	6	2	4	2	4	18
Hydrocodone	10	32	39	41	36	158
Buprenorphine	1	0	0	3	1	5
Methadone	4	5	3	6	3	21
Oxycodone	4	7	9	2	6	28
Narcotic analgesics	6	6	8	7	9	36
Other (non-narcotic)	14	10	4	9	9	46
Fentanyl	1	2	0	3	3	9
Dextromethorphan	10	10	12	11	17	60
Coricidin HBP	13	26	28	38	42	147
Misc. Anxiolytics	4	2	8	1	0	15
Muscle Relaxants	6	8	13	11	16	54
Ritalin/Adderall	10	11	9	9	6	45
Other Stimulants	4	2	1	0	0	7
Other	20	23	16	23	20	102
Unknown	2	3	4	2	0	11
<b>Total</b>	<b>212</b>	<b>218</b>	<b>249</b>	<b>276</b>	<b>222</b>	<b>1,177</b>

<sup>1</sup>Includes calls for the following exposure reasons: intentional misuse, intentional abuse, intentional unknown, contamination/tampering, and other malicious.

SOURCE: California Poison Control System



**Exhibit 6. Los Angeles County Poison Control System Exposure Calls for Select Substances, by Gender, Age, and Number and Percent<sup>1</sup>: 2005**

	<b>Cocaine/ Crack</b>	<b>Methamphetamine/ Amphetamine</b>	<b>Ritalin/ Adderall</b>	<b>Ecstasy</b>	<b>Coricidin HBP</b>	<b>Dextro- methorphan</b>
<b>Gender</b>						
Male	38 (63%)	49 (70%)	4 (67%)	6 (30%)	22 (52%)	10 (59%)
Female	28 (30%)	20 (29%)	2 (33%)	13 (65%)	20 (48%)	7 (4%)
Unknown	4 (6%)	1 (1%)	---	1 (5%)	---	---
<b>Age Group</b>						
Younger than 13	6 (10%)	11 (16%)	1 (17%)	3 (15%)	3 (7%)	1 (6%)
13–17	2 (3%)	8 (11%)	3 (50%)	2 (10%)	36 (86%)	8 (47%)
18–25	11 (18%)	20 (29%)	2 (33%)	8 (40%)	3 (7%)	1 (6%)
26–34	22 (37%)	32 (30%)	---	5 (25%)	---	3 (18%)
35–44	11 (18%)	5 (7%)	---	1 (5%)	---	1 (6%)
45–54	7 (12%)	3 (4%)	---	1 (5%)	---	---
55 and older	1 (2%)	2 (3%)	---	---	---	3 (18%)
<b>Total Number of Calls</b>	<b>60</b>	<b>70</b>	<b>6</b>	<b>20</b>	<b>42</b>	<b>17</b>

<sup>1</sup>Percentages may not add to 100 due to rounding.  
SOURCE: California Poison Control System

**Exhibit 7. Number of Drug Items Analyzed by the National Forensic Laboratory Information System for Los Angeles County, by Specific Drug and Percent of Total Items Analyzed: 2003–2005**

<b>Name of Substance</b>	<b>CY 2003</b>		<b>CY 2004</b>		<b>CY 2005</b>	
	<b>Count</b>	<b>(%)</b>	<b>Count</b>	<b>(%)</b>	<b>Count</b>	<b>(%)</b>
Cocaine/Crack	14,874	(32.7)	21,037	(38.3)	22,111	(36.5)
Methamphetamine/Amphetamine	16,263	(35.7)	17,789	(32.4)	19,617	(32.4)
Marijuana/Cannabis	11,311	(24.9)	12,327	(22.4)	13,864	(22.9)
Heroin	1,544	(3.4)	2,236	(4.1)	2,720	(4.5)
PCP	440	(<1.0)	280	(<1.0)	324	(<1.0)
LSD	--	--	1	(<1.0)	7	(<1.0)
MDMA/MDA	211	(<1.0)	232	(<1.0)	427	(<1.0)
GHB/GBL/1,4-BDL	15	(<1.0)	29	(<1.0)	55	(<1.0)
Ketamine	14	(<1.0)	23	(<1.0)	25	(<1.0)
Rohypnol	--	--	--	--	4	(<1.0)
Psilocin/Psilocybin	77	(<1.0)	109	(<1.0)	88	(<1.0)
<b>All Illicit Drugs</b>	<b>44,749</b>	<b>98.5%</b>	<b>53,954</b>	<b>98.2%</b>	<b>59,238</b>	<b>97.7%</b>
Analgesics	303	(<1.0)	401	(<1.0)	656	1.1
Benzodiazepines	174	(<1.0)	195	(<1.0)	314	(<1.0)
Stimulants	9	(<1.0)	19	(<1.0)	37	(<1.0)
Muscle Relaxants	23	(<1.0)	58	(<1.0)	78	(<1.0)
Non-Controlled Non-Narcotic Drugs	60	(<1.0)	101	(<1.0)	143	(<1.0)
Other	125	(<1.0)	188	(<1.0)	147	(<1.0)
<b>All Prescription/OTC/ Non-Controlled Substances</b>	<b>694</b>	<b>1.5%</b>	<b>962</b>	<b>1.4%</b>	<b>1,375</b>	<b>2.3%</b>
<b>TOTAL</b>	<b>45,443</b>	<b>100.0%</b>	<b>54,916</b>	<b>100.0%</b>	<b>60,613</b>	<b>100.0%</b>

SOURCE: NFLIS, DEA

**Exhibit 8. Illicit and Prescription Drug Prices in Los Angeles: December 2005**

Type of Drug	Price		
	Wholesale	Midlevel	Retail
Cocaine Powder Crack Cocaine	\$14,000–\$17,000 per kilogram N/R <sup>1</sup>	\$500–\$600 per ounce N/R	\$80 per gram \$10–\$40 per rock
Heroin Mexican Black Tar	\$20,000 per kilogram	\$400–\$700 per 25 grams	\$90–\$100 per gram \$10 per 1/10 gram
Mexican Brown Powder	\$25,000 per kilogram	N/R	N/R
Southeast Asian Per 700–750 grams Per 300–350 grams	\$70,000–\$80,000 \$35,000–\$40,000	N/R N/R	N/R N/R
Southwest Asian Opium	\$30,000 per kilogram	\$650–\$800 per 18-gram stick	N/R
South American	\$86,000–\$100,000 per kilogram	N/R	N/R
Marijuana Mexican Low-Grade Domestic Mid-Grade Sinsemilla High-Grade BC Bud	\$300–\$340 per pound \$750 per pound \$2,500–\$6,000 per pound \$6,000 per pound	\$75–\$100 per ounce \$120–\$150 per ounce \$300–\$600 per ounce N/R	\$5–\$10 per gram \$25 per gram \$60–\$80 per 1/8 ounce N/R
Hashish	\$8,000 per pound	N/R	N/R
Methamphetamine (Powder)	\$5,000–\$6,000 per pound	\$300 per ounce	N/R
Crystal Methamphetamine (Ice)	\$6,500–\$7,000 per pound	\$600–\$800 per ounce	\$20 per ¼ gram \$40–\$50 per 1/32 ounce \$60–\$70 per 1/16 ounce \$100–\$125 per 1/8 ounce
Pseudoephedrine	\$3,250–\$4,000 double case (1 case=17,000 60-mg tablets)	N/R	N/R
PCP	\$15,000–\$20,000 per gallon	\$300–\$350 per ounce	\$10–\$20 per sherm cigarette
LSD	\$150–\$200 per sheet (100 doses)	N/R	\$5–\$10 per dose
Psilocybin Mushrooms	N/R	N/R	\$20 per 1/8 ounce
MDMA (ecstasy)	\$6,000 per boat (1,000 tablets)	N/R	\$10–\$15 per tablet
GHB	\$275–\$350 per gallon \$80–\$100 per liter \$120 per 16 ounce bottle	N/R	\$5–\$20 per capful
GBL	\$600 per liter	N/R	N/R
Ketamine	N/R	\$100–\$200 per 10 milliliter vial	\$20 per two-tenths gram
Rohypnol (flunitrazepam)	N/R	N/R	\$6–\$10 per 1-mg pill
Steroids	N/R	N/R	\$10 per dose
Valium (diazepam)	N/R	N/R	\$1 per 5-mg tablet
Vicodin ES (hydrocodone)	N/R	N/R	\$1 per 10-mg tablet
OxyContin (oxycodone)	N/R	N/R	\$50–\$80 per 80-mg tablet
MS Contin	N/R	N/R	\$20 per 60-mg tablet
Percocet/Percodan	N/R	N/R	\$1–\$5 per 5-mg tablet
Dilaudid (hydromorphone)	N/R	N/R	\$20–\$60 per 4-mg tablet
Methadone	N/R	N/R	\$10 per tablet
Codeine	N/R	\$80–\$200 per liquid pint	\$1–\$2.50 per tablet
Duragesic Patch (fentanyl)	N/R	N/R	\$25–\$100 per patch
Xanax (alprazolam)	N/R	N/R	\$1 per 4-mg tablet
Ritalin (methylphenidate)	N/R	N/R	\$1–\$2 per tablet

<sup>1</sup>N/R=Not reported.

SOURCE: 3<sup>rd</sup> Quarter 2005 Drug Price List, LA County Regional Criminal Information Clearinghouse, and NDIC National Illicit Drug Prices, December 2005

**Exhibit 9. Reported Drug Use Among Los Angeles County Secondary School Students, by Grade and Percent: 2003–2005<sup>1</sup> School Years**

Usage Patterns Among Survey Respondents	7th Grade <sup>2</sup>	9th Grade	11th Grade	All Respondents <sup>3</sup>
Cocaine (any form)				
Lifetime	***	4.6	6.7	6.4
Past 30 days	***	2.4	2.3	2.8
Ecstasy				
Lifetime	***	3.8	4.9	4.9
Past 30 days	N/A <sup>4</sup>	N/A	N/A	N/A
Heroin				
Lifetime	***	2.5	1.9	2.5
Past 30 days	***	N/A	N/A	N/A
Inhalants				
Lifetime	10.9	12.7	10.6	11.6
Past 30 days	4.6	4.3	2.7	4.1
LSD/Other Psychedelics				
Lifetime	***	3.9	5.3	5.2
Past 30 days	***	2.0	1.6	2.1
Marijuana				
Lifetime	7.5	23.0	36.2	21.6
Past 30 days	4.2	11.9	15.7	10.7
Methamphetamine				
Lifetime	***	4.8	6.4	6.5
Past 30 days	***	2.4	2.2	2.8

<sup>1</sup>Data have been weighted to enrollment.

<sup>2</sup>The 7th grade data for several drugs (i.e., cocaine/crack, ecstasy, heroin, LSD/other psychedelics, and methamphetamine) were based on responses from a very small subset of 7th graders. Therefore, these results have been suppressed (\*\*\*).

<sup>3</sup>All respondents include responding 7th graders (when applicable), 9th graders, 11th graders, and a small sample of nontraditional students (enrolled in continuation or alternative schooling programs).

<sup>4</sup>N/A=Not applicable.

SOURCE: California Healthy Kids Survey, Los Angeles County Sample, WestEd

**Exhibit 10. Past-6-Month Substance Use Among Los Angeles County Secondary School Students, by Grade and Percent: 2003–2005<sup>1</sup> School Years**

Usage Patterns Among Survey Respondents	7th Grade <sup>2</sup>	9th Grade	11th Grade	All Respondents <sup>3</sup>
Any Alcohol	20.3	37.0	53.2	35.3
Inhalants	8.8	9.5	5.9	8.4
Marijuana	8.0	18.6	25.6	17.2
Cocaine (any form), Methamphetamine, or Other Stimulants	***	7.0	6.2	7.8
Psychedelics, Ecstasy, or Other Club Drugs	***	6.7	5.3	7.0
Other Drugs, Heroin, or Sedatives	***	7.1	5.0	7.0
Two or More Drugs at the Same Time	9.9	10.3	14.3	12.7

<sup>1</sup>Data have been weighted to enrollment.

<sup>2</sup>The 7th grade data for several drug categories were based on responses from a very small subset of 7th graders. Therefore, these results have been suppressed (\*\*\*).

<sup>3</sup>All respondents include responding 7th graders (when applicable), 9th graders, 11th graders, and a small sample of nontraditional students (enrolled in continuation or alternative schooling programs).

SOURCE: California Healthy Kids Survey, Los Angeles County Sample, WestEd

**Exhibit 11. Long-Term Trends in the Percentage of Current (Past-30-Day) Substance Users Among a Sample of Los Angeles County Secondary School Students<sup>1</sup>, by Percent: 1999–2005**

Substance	1999–2000	2000–2001 <sup>2</sup>	2001–2002	2002–2003 <sup>2</sup>	2003–2004	2004–2005 <sup>2</sup>
At Least One Drink of Alcohol	29.2	28.4	25.4	24.8	24.6	25.3
5+ Alcoholic Drinks Per Occasion (a.k.a., Binge Drinking)	14.4	13.4	12.4	12.4	12.3	12.8
Cocaine (Any Form)	4.9	4.3	3.9	3.8	3.8	2.7
Inhalants	5.7	5.1	5.0	5.3	5.3	4.2
LSD/Other Psychedelics	5.0	4.4	3.3	2.8	2.9	2.0
Marijuana	13.2	13.0	12.0	10.9	10.3	11.1
Methamphetamine	4.6	4.3	4.1	4.3	3.7	2.7

<sup>1</sup>All respondents include responding 7th graders (when applicable), 9th graders, 11th graders, and a small sample of nontraditional students (enrolled in continuation or alternative schooling programs).

<sup>2</sup>California school districts have the option of administering the CHKS every year, but are only required to participate every 2 years. Los Angeles Unified School District does not administer the CHKS in the off years. Therefore, LAUSD students are not a part of the sample in the indicated school years.

SOURCE: California Healthy Kids Survey, Los Angeles County Sample, WestEd

**Exhibit 12. Percent Change in Amount of Prescription Opiates and Stimulants Sold to Hospitals and Pharmacies in the Los Angeles County Area<sup>1</sup>: 2001–2005**

Name of Prescription Opiate	Percent Change, 2001 to 2005 <sup>2</sup>
Codeine	-28%
Oxycodone	+62%
Hydromorphone	+65%
Hydrocodone	+40%
Meperidine	-38%
Methadone	+104%
Morphine	+48%
Fentanyl base	+115%
<b>Total Opiates</b>	<b>+9%</b>
Name of Prescription Stimulant	Percent Change, 2001 to 2005 <sup>1</sup>
DL Amphetamine (Adderall)	+75%
D Amphetamine (Dexedrine)	+24%
Methylphenidate (Ritalin)	+41%
<b>Total Stimulants</b>	<b>+41%</b>

<sup>1</sup>Data for Zip Codes 900xx to 935xx, which approximates Los Angeles County boundaries.

<sup>2</sup>For CY 2005, data were only available through June 2005. Therefore, results for CY 2005 were extrapolated by doubling the grams of active ingredient for each medication. Final CY 2005 data will be available in the January 2007 area report.

SOURCE: DEA, Automation of Reports and Consolidated Orders System

**Exhibit 13. Annual Adult/Adolescent AIDS Cases by Gender, Year of Diagnosis, and Exposure Category: 1999–2005**

Adult/Adolescent Exposure Category <sup>1</sup>	1999 Number (%)	2000 Number (%)	2001 Number (%)	2002 Number (%)	2003 Number (%)	2004 <sup>2</sup> Number (%)	2005 <sup>2</sup> Number (%)
<b>Males</b>							
Male-to-Male Sexual Contact	1,051 (66)	960 (65)	929 (64)	1,039 (66)	930 (68)	699 (64)	355 (56)
Injection Drug Use	77 (5)	91 (6)	93 (6)	83 (5)	54 (4)	55 (5)	38 (6)
Male-to-Male Sexual Contact/Injection Drug Use	101 (6)	113 (8)	106 (7)	103 (7)	97 (7)	53 (5)	30 (5)
Hemophilia or Coagulation Disorder	<5 (-)	<5 (-)	5 (<1)	<5 (-)	<5 (-)	<5 (-)	<5 (-)
Heterosexual Contact	56 (4)	53 (4)	71 (5)	61 (4)	57 (4)	28 (3)	15 (2)
Transfusion Recipient	<5 (-)	<5 (-)	5 (<1)	6 (<1)	<5 (-)	<5 (-)	<5 (-)
Mother with/at Risk for HIV	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)
Other/Undetermined	294 (19)	261 (18)	235 (16)	278 (18)	215 (16)	254 (24)	188 (30)
<i>Male Subtotal</i>	<b>1,584</b>	<b>1,488</b>	<b>1,444</b>	<b>1,571</b>	<b>1,358</b>	<b>1,090</b>	<b>629</b>
<b>Females</b>							
Injection Drug Use	43 (20)	43 (19)	44 (20)	45 (20)	22 (12)	22 (15)	15 (14)
Hemophilia or Coagulation Disorder	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)
Heterosexual Contact	103 (48)	105 (46)	89 (40)	84 (38)	78 (43)	54 (36)	40 (37)
Transfusion Recipient	<5 (-)	<5 (-)	6 (3)	7 (3)	<5 (-)	<5 (-)	<5 (-)
Mother with/at Risk for HIV	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)
Other/Undetermined	65 (30)	79 (34)	84 (38)	83 (38)	80 (44)	70 (47)	52 (49)
<i>Female Subtotal</i>	<b>215</b>	<b>229</b>	<b>224</b>	<b>220</b>	<b>181</b>	<b>150</b>	<b>107</b>
<b>Total</b>	<b>1,799</b>	<b>1,717</b>	<b>1,668</b>	<b>1,791</b>	<b>1,539</b>	<b>1,240</b>	<b>736</b>

<sup>1</sup>Exposure categories are ordered hierarchically. Cases with multiple exposure categories are included in the category listed first.

<sup>2</sup>Data are provisional due to reporting delay. Cases include those reported by December 31, 2005.

SOURCE: Los Angeles County Department of Health Services, HIV Epidemiology Program

# Drug Abuse in Miami/Ft. Lauderdale, Florida: 2005

James N. Hall<sup>1</sup>

## ABSTRACT

*This report addresses the consequences of illicit drug and medication abuse in South Florida during 2005. The growing abuse of medications caused the most number of drug-induced and drug-related deaths locally and across Florida. The exception is in Miami-Dade County, where cocaine dominates drug-fatalities, and medication-related deaths are fewer than in any other metropolitan area of the State. Palm Beach and Broward Counties, immediately north of Miami-Dade County, have the highest number of narcotic analgesic and benzodiazepine deaths in Florida. Oxycodone is the prescription opiate most frequently mentioned by addiction treatment clients. Cocaine is responsible for the highest number of illicit drug deaths, medical emergencies, and treatment admissions, despite the fact that annual cocaine use is reported by less than 2 percent of Miami-Dade and Broward residents. Cocaine trends are declining slightly in South Florida but are increasing statewide, with the highest number of cocaine deaths reported during 2005 in Florida since being tracked beginning in 1991. Heroin deaths are down substantially across the region and the State as fatalities from prescription opiates are dramatically increasing, except in Miami-Dade County. Methamphetamine abuse and related problems are low in the region but have been increasing over the past year. Marijuana is the most prevalent illicit drug of abuse and dominates consequences among youth. Marijuana-related ED reports and addiction treatment mentions rank second behind cocaine (excluding alcohol). Club drug consequences continue to decline as MDA and MDEA are also being sold as 'ecstasy' along with MDMA. GHB has been replaced by 1,4 butanediol, which is responsible for a declining number of cases linked to 'GHB.' Benzodiazepine-, and particularly, alprazolam-related consequences are higher in Broward and Palm Beach Counties than the rest of Florida; they are lowest in Miami-Dade County.*

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## INTRODUCTION

This report reviews data from 2005 about drug-related deaths, medical emergencies, addiction treatment admissions, and law enforcement intelligence. Information is presented by primary substance of abuse, with topics including cocaine, heroin, other opiates, methamphetamine, marijuana, gamma hydroxybutyrate (GHB), 3,4 methylenedioxyamphetamine (MDMA or "ecstasy"), and benzodiazepines. While the information is classified by a single drug or category, the reader should note an underlying problem of polysubstance abuse as mentioned throughout this report. Exhibits for the report follow the narrative text.

## Area Description

Located in the extreme southern portion of the Florida peninsula, Miami-Dade County has a population of nearly 2.6 million; 56 percent are Hispanic, 21 percent are Black, 21 percent are White, and 2 percent are Asian/Pacific Islander. Miami is Dade County's largest city, with 360,000 residents. More than 100,000 immigrants arrive in Florida each year; one-half establish residency in Miami-Dade County.

Broward County, situated due north of Miami-Dade, is composed of Ft. Lauderdale plus 28 other municipalities and an unincorporated area. The county covers 1,197 square miles, including 25 miles of coastline. According to the 2000 census, the population was 1,649,925. The population is roughly 63 percent White non-Hispanic, 21 percent Black non-Hispanic, and 17 percent Hispanic.

Broward County is the second most populated county in Florida and accounts for approximately 10 percent of Florida's population. Broward was the top growth county in Florida in the 1990s and added 367,000 more people during that decade. Palm Beach County (population 1,154,464) is located due north of Broward County and is the third most populated county in the State. Together, the 5.4 million people of these 3 counties constitute one-third of the State's 16.3 million population.

Starting in 2003, these three counties constitute the new federally designated Metropolitan Statistical Area (MSA) for South Florida, making it the sixth largest in the Nation. Previously, the MSA included only Miami-Dade County. This means that Broward and Palm Beach Counties are included in more national data sets tracking health-related conditions and criminal justice information. One change is that more local hospitals are becoming participants in the national Drug Abuse

Warning Network (DAWN) that monitors emergency department (ED) reports of drug-related episodes.

Approximately 25 million tourists visit South Florida annually. The region is a hub of international transportation and the gateway to commerce between the Americas, accounting for sizable proportions of the Nation's trade: 40 percent with Central America, 37 percent with the Caribbean region, and 17 percent with South America. South Florida's airports and seaports remain among the busiest in the Nation for both cargo and international passenger traffic. These ports of entry make this region a major gateway for illicit drugs. Smuggling by cruise ship passengers is an important trend in South Florida drug trafficking and has apparently been growing because of airline security increases after September 11, 2001.

Several factors impact the potential for drug abuse problems in South Florida, including the following:

- Proximity to the Caribbean and Latin America exposes South Florida to the entry and distribution of illicit foreign drugs destined for all regions of the United States. Haiti and Jamaica remain as trans-shipment points for Colombian traffickers.
- South Florida is a designated High Intensity Drug Trafficking Area and one of the Nation's leading cocaine importation centers. It also became a gateway for Colombian heroin in the 1990s.
- Extensive coastline and numerous private air and sea vessels make it difficult to pinpoint drug importation routes into Florida and throughout the Caribbean region.
- Lack of a prescription monitoring system in Florida now makes the State a source for diverted medications throughout the southeastern United States.

### Data Sources

This report describes current drug abuse trends in South Florida, using the data sources summarized below:

- **Drug-related mortality data** were provided by the Florida Department of Law Enforcement (FDLE), Medical Examiners Commission's 2005 Report of Drugs Identified in Deceased Persons by the Florida Medical Examiners Commission.
- **ED data** were derived for 2005 from the DAWN *Live!* restricted-access online query system ad-

ministered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Eligible hospitals in only the Miami-Dade County Division totaled 21; hospitals in the DAWN sample numbered 19, with the number of EDs in the sample also totaling 19. (Some hospitals have more than one emergency department.) During 2005, 9–10 EDs reported data each month. The completeness of data reported by participating EDs was considered basically complete, with 90 percent or greater of ED records reviewed and reported (exhibit 1). Exhibits in this paper for Miami-Dade County reflect cases that were received by DAWN as of May 22–23, 2006. Eligible hospitals in the Ft. Lauderdale Division only (that includes Broward and Palm Beach Counties) totaled 27; there were 22 hospitals in the DAWN sample, and the number of emergency departments in the sample also totaled 22. During 2005, 4–8 EDs reported data each month. The completeness of data reported by participating EDs varied by month (exhibit 2). Exhibits in this paper for Broward and Palm Beach Counties reflect cases that were received by DAWN as of May 22–23, 2006. Based on this review, cases may be corrected or deleted. Therefore, the data presented in this paper are subject to change. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. Drug reports exceed the number of ED visits, since a patient may report use of multiple drugs (up to six drugs and alcohol). The DAWN *Live!* data are unweighted and, thus, are not estimates for the reporting area. These data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found on the DAWN Web site <<http://dawninfo.samhsa.gov>>.

- **Drug treatment data** for 2005 were provided by the Broward Addiction Recovery Centers (BARC) of the Broward County Department of Human Services and are from nine adult programs operated by BARC in Broward County. There are a total of 19 addiction treatment programs in the County. In 2005, BARC's clients represented 51.5 percent of all client admissions to publicly funded treatment programs in Broward County. The data are also reported by BARC to the State of Florida for inclusion in its Treatment Episode Data Sets (TEDS) submission to SAMHSA.
- **Crime lab drug analyses data** were derived from the Drug Enforcement Administration's

(DEA's) National Forensic Laboratory Information System (NFLIS) 2005 Annual Report for Miami-Dade and by the Broward Sheriff's Office (BSO) Crime Lab for 2005 for Broward County.

- **Drug pricing data** for South Florida were derived from the National Drug Intelligence Center (NDIC), *National Illicit Drug Prices*, December 2005.
- **Heroin price and purity information** is from the U.S. DEA's Domestic Monitor Program (DMP) from 2002 to 2004.
- **Survey data** are from three sources. Data on the prevalence of cocaine, marijuana, and any illicit drug use among the general population age 12 and older in Miami-Dade and Broward Counties are provided by the Substate Substance Abuse Estimates from the 1999–2001 National Survey(s) on Drug Use and Health (NSDUH) conducted by OAS, SAMHSA. Data on the prevalence of substance use by high school students in Florida are from the 2005 Florida Youth Substance Abuse Survey. Data on the prevalence of substance use by high school students nationally, across the State of Florida, and from Miami-Dade County, Broward County, Palm Beach County, Orange County (Orlando area), and Hillsboro County (Tampa area) are from the Centers for Disease Control and Prevention (CDC) Youth Risk Behavior Survey (YRBS) for 2005.

Other information on drug use patterns was derived from ethnographic research and callers to local drug information hotlines.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

South Florida's cocaine epidemic is characterized by morbidity and mortality rates that rank among the highest in the Nation. Cocaine abuse indicators have been rising since 2000 across the State but have remained relatively stable in Miami-Dade and Broward Counties at high rates. Cocaine indicators still dominate consequences of drug abuse. The majority of cocaine deaths, medical emergencies, and addiction treatment reports are among those older than 35. Many of the indicators reflect cocaine use in combination with other drugs, including opiates and benzodiazepines.

Throughout Florida, the number of *cocaine-related* deaths increased during 2005, continuing a rising

trend since 2000. There were 1,943 cocaine-related fatalities in 2005 across Florida, a 14.2-percent increase from the 1,702 deaths in 2004 (exhibit 3). Cocaine-related deaths are at their highest peak statewide since the drug has been tracked (in the late 1980s). Yet, such deaths in Miami-Dade and Broward Counties have been relatively stable over the past 5 years (exhibit 4). Among the cases statewide in 2005, 75 percent involved the use of another drug, thus reflecting prevalent polydrug abuse patterns with cocaine. A large proportion of cocaine ED reports also involved at least one other substance.

In Florida, a drug is considered to be the cause of death if it is detected in an amount considered a lethal dose by the local medical examiner (ME). Among the cocaine-related deaths statewide in 2005, 732 were considered to be *cocaine-induced*, a 24-percent increase from 2004.

There were 162 deaths related to cocaine abuse in Miami-Dade County during 2005 (exhibits 4 and 5), representing only a 1-percent increase over the 2004 total. Cocaine was detected at a lethal level in 14 percent of the cases in 2005, down from 35 percent of the 2004 cases and 25 percent of the 2003 cocaine-related deaths. Cocaine was found in combination with another drug in 58 percent of the cases during 2005, compared with 62 percent of the 2004 cases. Three of the 2005 cocaine-related fatalities were younger than 18; 13 percent were age 18–25; 14 percent were 26–34; 46 percent were 35–50; and 25 percent were older than 50.

There were 136 deaths related to cocaine abuse in Broward County during 2005 (exhibits 4 and 6), representing a 13-percent increase over the 120 cases from 2004. Cocaine was detected at a lethal level in 54 percent of the 2005 cases in Broward County, up from 35 percent of the 2004 cocaine cases. Broward County's number of cocaine deaths ranked sixth among the 24 medical examiner districts in the State. Cocaine was found in combination with another drug in 87 percent of the related death cases in 2005. None of the cocaine-related fatalities was younger than 18; 12 percent were age 18–25; 22 percent were 26–34; 54 percent were 35–50; and 12 percent were older than 50.

The Palm Beach medical examiner district reported the highest number of cocaine-related deaths in the State during 2005, with 197 cases, followed by Jacksonville with 195, Orlando with 165, Miami with 162, St. Petersburg with 138, and Broward County with 136. Palm Beach County had the highest number of lethal cocaine cases, with 85 such deaths, followed by Broward County with 73 cocaine-induced deaths.



Unweighted data on ED cocaine reports in Miami-Dade County show that cocaine was the most commonly involved illicit drug in local emergency department visits during 2005, accounting for 60 percent of the 11,394 Miami-Dade major substances of abuse reports (excluding alcohol-in-combination with another drug, any alcohol by those younger than 21, and medications) (exhibit 7). Most (69 percent) of the 6,800 Miami-Dade cocaine-involved ED patients were male. Non-Hispanic Blacks accounted for 44 percent of the cocaine patients; 33 percent were non-Hispanic Whites; and 17 percent were Hispanics. Race/ethnicity was not documented or was unknown for 6 percent of the patients. Cocaine-involved ED patients were age 35 or older in 62 percent of the reports, which continues a pattern of older cocaine ED patients. The patients' ages were as follows: less than 1 percent ( $n=43$ ) were younger than 18, 12 percent were 18–24, 25 percent were 25–34, 36 percent were 35–44, and 26 percent were 45 or older.

Cocaine was clearly the most commonly reported illicit drug in Broward County ED visits, accounting for 55 percent of the 8,455 major substances of abuse reports (excluding alcohol-in-combination with another drug, any alcohol reported by those younger than 21, and medications) in 2005 (exhibit 8). Most (68 percent) of the 4,650 Broward cocaine ED patients were male. Fifty-eight percent were non-Hispanic Whites, 31 percent were non-Hispanic Blacks, and 8 percent were Hispanic/other. Cocaine-involved ED patients were age 35 or older in 59 percent of these cases. The patients' ages were as follows: 3 percent were younger than 18, 13 percent were 18–24, 26 percent were 25–34, 36 percent were 35–44, and 23 percent were 45 or older.

Cocaine accounted for 3,750 or 42 percent of the 8,995 primary, secondary, and tertiary treatment drug mentions (excluding alcohol) from the BARC treatment programs during 2005 (exhibit 9). Cocaine was cited by 48 percent of the 7,863 BARC clients in 2005. Of the 3,750 total cocaine mentions, 45 percent (or 1,698 cases) were as the primary drug of abuse (exhibit 10). Fifty-five percent of the total cocaine treatment mentions were from White, non-Hispanic clients; 34 percent were from Black, non-Hispanic patients; and 11 percent were from Hispanics. BARC client data are for clients age 18 and older. Those age 18–24 accounted for 8 percent of the cocaine treatment mentions; 22 percent were 25–34; and 69 percent were older than 34. Drug-specific data on treatment admissions in Miami-Dade County are not available.

Powder cocaine and crack are still described as “widely available” throughout Florida. Cocaine is still the most commonly analyzed substance by the

Miami-Dade and Broward Sheriff's Office crime labs. It accounted for 12,481 cases, or 71 percent of all items tested, in Miami-Dade during 2005 and for 5,853 cases, or 72 percent of all items analyzed, in Broward County. The second most commonly analyzed substance was marijuana in both Miami-Dade and Broward Counties.

According to NDIC, in Miami powder cocaine sells for \$15,000–\$22,000 per kilogram wholesale, \$600–\$1,300 per ounce, and \$40–\$100 per gram retail. Crack cocaine sells for \$650 per ounce and \$5–\$20 per “rock.” Ethnographic sources report that street purity has decreased over the past year.

In 2005, prevalence rates of drug use among the general population age 12 and older were published for substate areas of the Nation. This information is derived by combining 3 years of results from the NSDUH to provide a large enough sample to make county-level estimates. Responses are from 1,744 Miami-Dade County residents and 960 residents of Broward County to the 1999, 2000, and 2001 NSDUH. These combined years provide an adequate sample of the 1,913,807 Miami-Dade residents and the 1,335,400 people in Broward County age 12 and older. Cocaine use in the past year was reported by 1.55 percent or 29,664 Miami-Dade county residents older than 12. Past-year cocaine use was reported by 1.46 percent or 19,500 Broward County residents age 12 and older. The proportion was 1.72 percent for the Nation and 1.59 percent for the State of Florida.

The 2005 Florida Youth Survey on Substance Abuse reported that 6 percent of Florida high school students had used cocaine at least once in their lifetime. The 2005 YRBS reported lifetime cocaine use at 7.5 percent for Florida high school students and 7.6 for the Nation. The proportions of high school students reporting lifetime use of cocaine did not differ significantly in five counties included in the YRBS in 2005: Broward County (5.8 percent), Palm Beach County (6.1 percent), Miami-Dade County (6.3 percent), Orange County where Orlando is located (7.6 percent), and Hillsborough County where Tampa is located (7.9 percent).

The 2005 Florida Youth Survey on Substance Abuse reported that 2 percent of Florida high school students had used cocaine at least once in the past 30 days. The 2005 YRBS reported the proportion as 3.6 percent for Florida high school students and 3.4 percent for students nationally. Past-30-day use of cocaine did not differ significantly across the five participating counties: Broward County (2.9 percent), Miami-Dade County (3.1 percent), Palm Beach

County and the Orlando area (both 3.2 percent), and 3.5 percent in the Tampa area.

### Heroin

The purity of street-level heroin decreased by almost one-half between 2000 and 2004 as the price per milligram-pure more than doubled. Lower purity heroin may explain why deaths also declined dramatically in South Florida and across the State. Less pure heroin may also explain substantial increases in abuse and consequences of narcotic analgesics in recent years. Frequently, benzodiazepines are involved as well. Most heroin deaths, ED visits, and addiction treatment admissions continue to be among older, White males. South American heroin has been entering the area over the past decade. Abuse of narcotic pain medication has fueled opioid consequences. Polydrug abuse patterns have facilitated first-time use of opiate drugs, including heroin.

Throughout Florida, there were 122 heroin-related deaths in 2005 (exhibit 3), representing a 32-percent decline from the 180 such deaths in 2004. Yet, heroin was found to be the most lethal drug, with 89 percent ( $n=109$ ) of heroin-related deaths being caused by the drug in 2005. Heroin deaths continued a 4-year decline, down from 328 related deaths in 2001 (exhibit 11), yet deaths from prescription narcotic opiates increased over the same period. Polysubstance abuse was noted in 89 percent of the heroin-related deaths statewide. Across Florida, there were 180 heroin-related deaths in 2004, 261 in 2003, 326 in 2002, and 328 in 2001.

In 2005, Miami-Dade County had the highest number of heroin-related deaths ( $n=22$ ) in Florida, followed by Palm Beach County (19) and Broward County (17). Miami had the greatest number of heroin-induced deaths in the State ( $n=19$ ). In Miami-Dade County, heroin was found at a lethal dose level in 19 of the 22 deaths in which heroin was detected in 2005 (exhibit 5). Other drugs were detected in 19 (86 percent) of the cases. None of the heroin-related fatalities was younger than 18; 23 percent were age 18–25, 14 percent were 26–34, 54 percent were 35–50, and 9 percent were older than 50.

The 22 heroin-related deaths in Miami-Dade during 2005 reflect a 22-percent increase over the 18 deaths in 2004. There had been a 44-percent decrease between 2003 and 2004. Heroin deaths peaked in Miami-Dade County in 2000 with 61 fatalities.

In Broward County, heroin was detected at a lethal dose level in all 17 heroin-related deaths during 2005 (exhibit 6). Other drugs were detected in all but one

of these cases. None of the heroin-related fatalities was younger than 18; one (or 6 percent) was age 18–25; 41 percent were 26–34; 47 percent were 35–50; and one was older than 50. The 17 heroin-related deaths during 2005 in Broward County reflected a 51-percent decrease over such deaths during 2004. The 35 heroin-related deaths during 2004 in Broward County reflected a 29-percent decrease over the 49 in 2003. There were 50 heroin-related deaths in 2002 and 41 in 2001. The relatively low number of 24 heroin-related deaths in 2000 was attributed to a sharp rise in other opioid deaths linked to prescription narcotics.

There were a total of 1,587 unweighted ED heroin reports in Miami-Dade County in 2005, representing 14 percent of illicit drug reports (exhibit 7). Males accounted for 79 percent of these patients, and 50 percent were non-Hispanic Whites. Hispanics accounted for 21 percent, and Blacks represented 20 percent of the heroin ED patients. Race or ethnicity was not named nor documented for 9 percent of the heroin ED reports. There were three patients younger than 5 and two age 6–17, while 11 percent were age 18–24, 31 percent were 25–34, 32 percent were 35–44, and 24 percent were older than 44.

Unweighted data for 2005 from the Broward EDs identified a total of 623 heroin reports, representing 7 percent of illicit drug reports (exhibit 8). The heroin ED patients were predominantly older White males. Males accounted for 68 percent of the patients, and 73 percent were non-Hispanic Whites. Hispanics accounted for 13 percent of the heroin ED patients, and Blacks represented 9 percent of the patients. There were seven patients younger than 18, while 16 percent were age 18–24, 30 percent were age 25–34, 32 percent were 35–44, and 21 percent were older than 44.

Heroin accounted for 1,152 (or 13 percent) of primary, secondary, and tertiary treatment drug mentions (excluding alcohol) from the BARC program in 2005 (exhibit 9). Heroin was cited by 15 percent of the 7,863 BARC clients in 2005. Of the 1,152 total heroin mentions, 78 percent ( $n=903$ ) were as the primary drug of abuse (exhibit 10). White, non-Hispanic clients accounted for 71 percent (818) of the total heroin mentions; 18 percent were Hispanics and 11 percent were Black, non-Hispanic patients. BARC client data are for clients age 18 and older. Those age 18–24 accounted for 8 percent of the heroin treatment mentions; 29 percent were age 25–34; and 63 percent were older than 34.

Heroin accounted for 601 crime lab cases in Miami-Dade during 2005 according to NFLIS, representing 3.4 percent of all drugs tested. There were 146 heroin

cases worked by the Broward Lab in the same period, representing 1.8 percent of all samples.

The DEA's DMP tested street-level samples of heroin in South Florida in 2004. The South American heroin samples averaged 15.7 percent pure heroin, down 45 percent from 2002. This was the largest decline among any of the cities sampled in the national program. The average price per milligram-pure was \$1.53. Compared with 2002 samples, the price per milligram-pure rose by 151 percent, also the greatest increase of all cities in the program over the 2-year period.

Colombian heroin is available in South Florida as described by law enforcement officials and epidemiologists/ethnographers. According to NDIC, 1 kilogram of heroin sells for \$48,000–\$70,000 in the region and for \$2,500 per ounce; retail prices are roughly \$100–\$150 per gram. The most common street unit of heroin is a bag of heroin (roughly 15–20 percent purity) weighing about one-tenth of a gram that sells for \$10.

The 2005 Florida Youth Survey on Substance Abuse reported that 1 percent of Florida high school students had used heroin at least once in their lifetime. In the 2005 YRBS survey, 2.8 percent of students in grades 9–12 reported ever using heroin. The prevalence of lifetime heroin use among high school students in Miami-Dade County (1.8 percent) was significantly lower than the prevalence in the Tampa Bay area (3.7 percent). Differences in the other three counties were not statistically significant: Broward County (2.5 percent), the Orlando area (2.8 percent), and Palm Beach County (3.2 percent).

### Other Opiates

The abuse of prescription narcotic analgesics continues to rise, particularly in Broward and Palm Beach Counties, and has increased as heroin consequences, including deaths, have declined (exhibit 11). Following inhalants, opiates were the group of drugs mostly likely to be cited across Florida at lethal levels as the cause of death in cases in which the drug was detected. As mentioned above, during 2005 heroin was considered the cause of death in 89 percent of the cases in which it was detected, followed by 66 percent of the methadone deaths, 55 percent of fentanyl cases, and 47 percent of oxycodone deaths. Deaths from opiates other than heroin (including hydrocodone, oxycodone, and methadone) have been tracked in Florida since 2000. Beginning in 2003, morphine, propoxyphene, fentanyl, hydromorphone, meperidine, and other opioids were included in the Florida Medical Examiners Commission's surveillance monitoring program. Deaths for opiates other

than heroin totaled 244 in Broward County, 82 in Miami-Dade County, and 377 in Palm Beach County in 2005 (exhibit 12).

Statewide deaths related to meperidine, morphine, hydromorphone, methadone, oxycodone, propoxyphene, and hydrocodone increased between 2004 and 2005. Only deaths related to heroin and fentanyl had declining numbers.

Methadone deaths statewide totaled 934 in 2005, a 10-percent increase from 2004. The number of methadone-related deaths has been increasing since 2001. Methadone was considered the cause of death in 66 percent of the 934 deaths related to the drug in 2005.

The number of oxycodone-related deaths increased 6 percent statewide between 2004 and 2005, when they totaled 716. Oxycodone was the cause of death in 47 percent of the deaths related to it.

The number of hydrocodone deaths increased 2.5 percent statewide between 2004 and 2005, when they reached 648. Hydrocodone was the cause of death in 34 percent of the hydrocodone-related deaths.

Additional opiate-related analgesic deaths statewide in 2005 included morphine (658), propoxyphene (368), fentanyl (178), hydromorphone (108), meperidine (58), and other opioids (230). When the ME mentions for all opiate analgesics are added to those for heroin, these opioid-related ME mentions in Florida during 2005 total 4,020 cases. This total is greater than the 3,875 alcohol-related deaths during the same period. Most of the statewide opioid cases were poly-drug episodes, including 88 percent of the heroin deaths, 88 percent of the methadone ME cases, 86 percent of the oxycodone ME cases, 85 percent of the hydrocodone ME cases, 74 percent of morphine cases, and 74 percent of propoxyphene deaths.

Miami-Dade recorded 30 morphine-related deaths during 2005, of which 13 percent were morphine induced. Miami-Dade also had 19 oxycodone-related deaths in 2005, of which 32 percent ( $n=6$ ) were oxycodone induced. Most of these deaths (84 percent) involved oxycodone found in combination with at least one other drug. There were 19 propoxyphene-related deaths in Miami-Dade County, of which 1 was propoxyphene induced. Miami-Dade County recorded 16 hydrocodone-related deaths during the period, and 25 percent were hydrocodone induced. Miami-Dade County recorded 10 methadone-related deaths in the 2005, with 40 percent considered methadone induced.

Broward County recorded 82 oxycodone-related deaths during 2005, of which 45 (55 percent) were oxycodone induced. Of these deaths, 89 percent involved oxycodone found in combination with at least one other drug. Broward County recorded 78 methadone-related deaths during 2005. Among the methadone deaths, 51 (65 percent) were considered methadone-induced. Broward County recorded 45 morphine-related deaths during 2005, of which 21 (47 percent) were morphine-induced. Broward County recorded 26 hydrocodone-related deaths in 2005, and 11 (42 percent) were hydrocodone induced. Broward County had 13 propoxyphene-related deaths in 2005, of which 6 (46 percent) were propoxyphene induced.

Unweighted data accessed from DAWN *Live!* for Miami-Dade County EDs during 2005 reveal a total of 548 narcotic analgesic ED reports (exhibit 7). Of these, 190 were oxycodone ED reports. The total also includes 59 methadone ED reports, 42 hydrocodone ED reports, and 257 ED reports for other narcotic analgesics, of which 197 were unspecified medications. Of the total 548 narcotic analgesic ED reports, 41 percent of the patients were seeking detoxification, 15 percent were considered overmedication reports, and 43 percent were considered “other” or drug misuse reports.

Males accounted for 59 percent of the Miami-Dade narcotic analgesic ED patients, and 61 percent were non-Hispanic Whites. Hispanics accounted for 18 percent, and Blacks represented 13 percent of the narcotic analgesic ED patients. Race or ethnicity was not named or documented for 8 percent of these ED reports. None of the patients was younger than 18; 11 percent were age 18–24; 22 percent were 25–34; 29 percent were 35–44; 27 percent were 45–54; and 9 percent were older than 54.

Unweighted data accessed from DAWN *Live!* for Broward County EDs during 2005 reveal a total of 1,861 narcotic analgesic ED reports (exhibit 8), of which 726 were oxycodone ED reports. The total also includes 221 methadone ED reports, 212 hydrocodone ED reports, and 702 ED reports for other narcotic analgesics, of which 529 were unspecified medications. Among the 726 identified oxycodone reports, 68 percent contained only oxycodone rather than being in combination with acetaminophen or aspirin. Of the total 1,861 narcotic analgesic ED reports in Broward, 37 percent of the patients were seeking detoxification, 16 percent were considered overmedication reports, and 47 percent were considered “other” or drug misuse reports.

Males accounted for 60 percent of the Broward narcotic analgesic ED patients, and 84 percent were non-

Hispanic Whites. Blacks accounted for 7 percent, and Hispanics represented 6 percent of the narcotic analgesic ED patients. Race or ethnicity was not named or documented for 3 percent of these ED reports. Two percent of the patients were younger than 18; 11 percent were age 18–24; 22 percent were 25–34; 30 percent were 35–44; 24 percent were 45–54; and 10 percent were older than 54.

Opiates other than heroin accounted for 1,005 (or 11 percent) of primary, secondary, and tertiary treatment drug mentions (excluding alcohol) from the BARC program in 2005 (exhibit 9). These prescription opiates were cited by 13 percent of the 7,863 BARC clients in 2005. Of the 1,005 total mentions for these other opiates, 63 percent ( $n=630$ ) were as the primary drug of abuse (exhibit 10). Oxycodone was the specific opiate mentioned by 203 (3 percent) patients. White, non-Hispanic clients accounted for 87 percent of the total oxycodone mentions; 10 percent were from Hispanics; and 3 percent were from Black, non-Hispanic patients. BARC client data are for clients age 18 and older. Those age 18–24 accounted for 15 percent of the oxycodone treatment mentions; 33 percent were age 25–34, and 52 percent were older than 34.

The NFLIS reported 41 oxycodone crime lab cases, 33 hydrocodone cases, 8 methadone cases, and 11 other narcotic analgesic cases during 2005 in Miami-Dade County, representing 0.5 percent of all cases. The Broward Sheriff's Office Crime Lab worked 252 oxycodone cases during 2005. There were also 138 hydrocodone cases, 8 hydromorphone cases, and 3 buprenorphine cases in the same period. The 401 narcotic analgesics cases in Broward County represented 5 percent of all cases.

### **Methamphetamine**

Methamphetamine abuse continues to be a local problem, as multiple supply sources have been identified. “Crystal,” or smokable, methamphetamine has been shipped by overnight delivery from California for several years. Law enforcement sources confirm increased trafficking from Atlanta and North Carolina of high-grade Mexican-manufactured methamphetamine in the last year. There have also been several seizures of local methamphetamine labs. Mexican drug trafficking organizations are supplying powdered methamphetamine directly to local Latino populations of Central and South American nationalities. Outlaw motorcycle gang activity involved with local lab production and distribution has also been noted. Signs of methamphetamine abuse spreading to new populations indicate the local epidemic has progressed from the incubation period of the past 5 years to an expansion phase with growing numbers of users.

Methamphetamine-related deaths totaled 115 during 2005 statewide in Florida, representing a 24-percent increase from the 93 such deaths in the previous year. Methamphetamine was considered the cause of death in 29 of the 115 cases (25 percent) during 2005. There were also 102 amphetamine-related deaths in 2005 across Florida, a 7-percent increase over the previous year. Amphetamine was considered the cause of death in 15 percent of the 102 cases in 2005.

Unweighted data accessed from DAWN *Live!* reveal 74 methamphetamine-related ED reports during 2005 in Miami-Dade County. Among those patients, 86 percent were male, 54 percent were non-Hispanic Whites, 23 percent were non-Hispanic Blacks, and 16 percent were Hispanics. Race/ethnicity was not documented for 7 percent of the reports. One methamphetamine ED patient was younger than 18; 19 percent were age 18–24; 45 percent were age 25–34; 26 percent were 35–44; and 7 percent were older than 44. The ages for two patients were not documented.

Unweighted data accessed from DAWN *Live!* reveal 77 methamphetamine-related ED reports during 2005 in Broward County. Among those patients, 84 percent were male, 77 percent were non-Hispanic Whites, 14 percent were non-Hispanic Blacks, and 9 percent were Hispanics. One methamphetamine ED patient was between 12 and 18 years of age; 27 percent were 18–24; 43 percent were 25–34; 25 percent were 35–44; and 4 percent were older than 44.

Methamphetamine accounted for 71 (or 0.8 percent) primary, secondary, and tertiary treatment drug mentions (excluding alcohol) from the BARC program in 2005 (exhibit 9). Methamphetamine was cited by 0.9 percent of the 7,863 BARC clients in 2005. Of the 71 total methamphetamine mentions, 70 percent ( $n=50$ ) were as the primary drug of abuse (exhibit 10). Amphetamines and other prescription stimulants accounted for 22 primary mentions and 11 additional secondary and tertiary mentions among BARC clients in 2005.

The NFLIS reported that the Miami-Dade Crime Lab analyzed 140 methamphetamine exhibits during 2005, representing 0.8 percent of all substances tested. There were 163 Broward Sheriff's Office Crime Lab methamphetamine cases in 2005, representing 2 percent of all cases analyzed, compared with 96 in 2004 and 90 in 2003.

Statewide, the number of clandestine methamphetamine labs or equipment seizures has risen from 30 cases in fiscal year (FY) 2000 (October 1999 to Sep-

tember 2000) to 341 in the FY ending September 30, 2005.

In South Florida, methamphetamine has some of the highest prices in the Nation: \$10,000–\$20,000 per pound and \$900–\$1,400 per ounce for “ice.”

The 2005 Florida Youth Survey on Substance Abuse reported that 2 percent of Florida high school students had used methamphetamine at least once in their lifetime. The 2005 CDC's YRBS reported that 4.9 percent of Florida high school students reported lifetime use, compared with the national proportion of 6.2 percent. The prevalence of lifetime methamphetamine use among high school students in Miami-Dade County (2.4 percent) was significantly lower than the prevalence estimates in the Tampa area (6.2 percent), Palm Beach County (5.0 percent), and the Orlando area (5.2 percent). In Broward County, 4 percent of the students reported ever using methamphetamine.

Methamphetamine abuse and related sexual activity have contributed to sharp increases in sexually transmitted diseases in South Florida, particularly among the men who have sex with men (MSM) population.

### Marijuana

Marijuana is abused by more Americans, particularly youth, than any other illicit drug. Consequences of its abuse and addiction continue, even as rates of its use are declining among youth.

Cannabinoids were detected in 843 deaths statewide in Florida during 2005, representing a 3-percent increase from 2004.

Unweighted data from DAWN *Live!* for 2005 show that marijuana accounted for 2,681, or 24 percent, of the 11,394 Miami-Dade major substances of abuse reports (not including alcohol-in-combination with another drug, any alcohol use by those younger than 21, and medications) during 2005 (exhibit 7). Seventy-six percent of the marijuana ED patients were male. Non-Hispanic Blacks accounted for 46 percent of these patients; non-Hispanic Whites accounted for 31 percent; and Hispanic/others accounted for 18 percent. Race/ethnicity was not documented for 5 percent of the patients. There were 126 patients (5 percent) younger than 18, while 27 percent of the patients were age 18–24, 29 percent were 25–34, 23 percent were 35–44, and 15 percent were older than 44.

Unweighted ED data from Broward County show that marijuana was involved in 33 percent or 2,815 of the 8,455 drug abuse ED reports during 2005 (exhibit

8). Sixty-eight percent of the marijuana ED patients were male. Non-Hispanic Whites accounted for 58 percent of these patients, non-Hispanic Blacks represented 29 percent, and Hispanics/other constituted 9 percent. Race/ethnicity was not documented for 4 percent of the Broward marijuana ED reports. Marijuana is still the most commonly abused illicit drug among young people visiting the ED. Sixty-two percent of marijuana ED reports were among those younger than 35. There were 363 patients (13 percent) younger than 18, while 23 percent of patients were age 18–24, 25 percent were 25–34, 22 percent were 35–44, and 16 percent were older than 44.

Marijuana accounted for 2,136 (or 24 percent) of the 8,995 primary, secondary, and tertiary treatment drug mentions (excluding alcohol) from the BARC treatment programs during 2005 (exhibit 9). Marijuana was cited by 27 percent of the 7,863 BARC clients in 2005. Of the 2,136 total marijuana mentions, 32 percent (or 684 cases) were as the primary drug of abuse (exhibit 10). Fifty-one percent of the total marijuana treatment mentions were from White, non-Hispanic clients, 37 percent were from Black, non-Hispanic patients, and 12 percent were from Hispanics. BARC client data are for clients age 18 and older. Those age 18–24 accounted for 8 percent of the marijuana treatment mentions; 29 percent were age 25–34; and 63 percent were older than 34.

The NFLIS reported 3,623 marijuana crime lab cases in Miami-Dade County in 2005, representing 21 percent of all exhibits analyzed. Broward County reported 609 marijuana crime lab cases during 2005, representing 8 percent of all exhibits analyzed. Statewide, marijuana was seized more frequently than any other illicit drug in Florida. Marijuana is still described as widely available throughout Florida, with local commercial, sinsemilla, and hydroponic grades available. A pound of imported marijuana sells for \$600–\$1,200 per pound. Hydroponic grades sell for \$4,000–\$5,000 per pound. The ounce price for marijuana is \$100, and a 1½-gram bag costs \$5. Depending on its potency, marijuana may sell for \$5–\$18 per gram.

According to the NSDUH, marijuana use in the past month was reported by 4.39 percent (or 84,016) of Miami-Dade county residents and by 4.97 percent (or 66,369) of Broward County residents older than 12. Nationally, the proportion was 5.09 percent, compared with 4.84 percent for the State of Florida.

The 2005 Florida Youth Survey on Substance Abuse reported that 31 percent of Florida high school students had used marijuana at least once in their lifetime. The 2005 YRBS reported such use at 35.2 percent for Florida high school students and 38.4 percent

for students nationwide. Miami-Dade County high school students were significantly less likely than those in three other Florida counties to report lifetime use of marijuana. The prevalence in Miami-Dade was 28.3 percent, compared with significantly higher estimates in Broward County (34.8 percent), the Orlando area (35.1 percent), and the Tampa area (38.1 percent). In Palm Beach County, 32.6 percent of the high school students reported ever using marijuana.

The 2005 Florida Youth Survey on Substance Abuse reported that 15 percent of Florida high school students had used marijuana at least once in the past 30 days. The 2005 YRBS reported the proportions as 16.8 percent for Florida high school students, compared with 20.2 percent for students nationwide. As was the case for lifetime marijuana use, students in Miami-Dade high schools were significantly less likely than those in other participating counties to have used marijuana in the 30 days prior to survey. In Miami Dade, 12.8 percent of the students reported current marijuana use, compared with 17.3 percent in Broward County, 18.6 percent in the Orlando area, 18.7 percent in Palm Beach County, and 19.1 percent in the Tampa area. The prevalence estimate in Broward County was significantly lower than estimates in the Orlando, Palm Beach, and Tampa areas.

#### **Methylenedioxymethamphetamine (MDMA, or “Ecstasy”)**

Measures of MDMA abuse suggest problems may have peaked in 2001, declined thereafter, and then stabilized between 2003 and 2005.

Ecstasy pills generally contain 75–125 milligrams of MDMA, although pills are often adulterated and may contain other drugs being sold as “ecstasy.”

There were 27 MDMA-related deaths statewide in Florida during 2005, with the drug being cited as the cause of death in 37 percent of these cases. There were also 18 methylenedioxyamphetamine (MDA)-related deaths statewide in Florida during the same time. An additional nine deaths were related to other methylated amphetamines in 2005, with those substances being the cause of two of the deaths. In 2004, there were 41 MDMA-related deaths, 27 MDA-related deaths, and 6 other deaths from an unidentified methylated amphetamine. During 2003, there were 34 MDMA-related deaths, 20 MDA-related deaths, and 1 other death from an unidentified methylated amphetamine.

Unweighted DAWN *Live!* data reveal 101 MDMA ED reports from Miami-Dade County during 2005, representing only 1 percent of major substances of

abuse ED reports. In the unweighted DAWN *Live!* data for Broward County during 2005, there were 85 MDMA-related ED reports, accounting for 1 percent of major substances of abuse ED reports.

The NFLIS reported that the Miami-Dade Crime Lab analyzed 139 MDMA exhibits as well as 8 MDA cases and 4 methylenedioxyethylamphetamine (MDEA) samples during 2005, representing 1 percent of all substances analyzed. In 2005, the Broward Sheriff's Office Crime Lab analyzed 57 MDMA cases, 13 MDA cases, and 3 MDEA samples, together representing 1 percent all cases. The number of MDMA cases peaked in the first half of 2001 with 132 cases in Broward County; the total declined to 35 cases by the second half of 2004.

In South Florida, ecstasy tablets sell for \$6.00–\$6.25 per tablet wholesale (in bulk), \$20–\$30 retail for a single pill, or up to \$50 per pill at expensive nightclubs. These prices have increased since 2002.

The 2005 Florida Youth Survey on Substance Abuse reported that 5 percent of Florida high school students had used “ecstasy” at least once in their lifetime. The 2005 YRBS reported the proportion at 6.5 percent for Florida high school students, compared with the national proportion of 6.3 percent. The lifetime use of ecstasy was significantly lower in Miami-Dade County (5.4 percent) than in the Tampa area (9.1 percent). In Palm Beach County, 5.9 percent of the high school students reported ever using ecstasy, as did 6.5 percent of the Orlando area students and 6.1 percent of the Broward County students.

### **Gamma Hydroxybutyrate (GHB)**

GHB, an anesthetic, has been a commonly abused substance in South Florida for the past 10 years. There are several compounds that are converted by the body to GHB, including gamma butyrolactone (GBL) and 1,4 butanediol (1,4 BD). Most recently, GHB abuse involves the abuse of 1,4 BD. Indicators of abuse of these drugs continue to decline. Commonly used with alcohol, they have been implicated in drug-facilitated rapes and other crimes. They have a short duration of action and are not easily detectable on routine hospital toxicology screens. GHB was declared a federally controlled Schedule I drug in March 2000, and indicators of its abuse have declined since that time. More recently, GHB and its related substances are reported to be used by those seeking to come down from stimulant effects of methamphetamine.

There were nine GHB-related deaths statewide during 2005. The drug was not considered the cause of death in any of these cases. There were 11 GHB-

related deaths reported statewide during both 2003 and 2004. GHB was considered to be at lethal levels in 27 percent of the 2003 cases and in 55 percent of the 2004 cases. In all of Florida, GHB-related deaths increased from 23 in 2000 to 28 in 2001 and then declined to 19 in 2002 before declining to 11 in 2003 and 2004.

Unweighted data accessed from DAWN *Live!* for Miami-Dade County reveal 17 GHB-related ED reports during 2005. There were 38 such DAWN *Live!* reports in Broward County.

The NFLIS reported 17 crime lab cases of 1,4 BD in Miami-Dade County during 2005, along with 7 GBL cases and 6 GHB cases. The Broward Sheriff's Office crime lab reported 12 cases of 1,4 BD, 3 cases of GHB, and 3 cases of GBL during 2005.

### **Benzodiazepines**

Benzodiazepines in general and alprazolam (Xanax) in particular are a substantial problem. There were 2,080 benzodiazepine-related deaths across Florida in 2005 (exhibit 3), representing a 3-percent increase over the 2,011 such deaths in 2004. Of the 2005 benzodiazepine-related deaths, a benzodiazepine was identified as the cause of death in 574 cases (or 28 percent). Among the benzodiazepine-related deaths, 1,057 were attributed to alprazolam and 608 were attributed to diazepam.

In Miami-Dade County, there were 41 alprazolam-related deaths during 2005, of which 10 (24 percent) were alprazolam-induced. Eighty-eight percent of the deaths involved at least one other drug. There were also 11 diazepam-related deaths in Miami-Dade County; 1 was caused by the drug; 82 percent of these deaths involved at least 1 other drug.

Broward County recorded 128 alprazolam-related deaths during 2005, of which 51 (40 percent) were drug-induced. Only three (2 percent) of the deaths involved alprazolam alone. Two of the Broward alprazolam-related decedents were younger than 18. Broward County recorded 76 diazepam-related deaths in 2005, of which 21 (28 percent) were diazepam-induced. Eighty percent of these cases involved at least one other drug.

Unweighted DAWN *Live!* data on ED benzodiazepine reports in Miami-Dade County reveal 1,006 such reports during 2005 (exhibit 7). Overmedication accounted for 32 percent of the reports, while seeking detoxification was the reason for 22 percent of the benzodiazepine reports. The remaining 46 percent are considered substance misuse reports. Alprazolam was

specifically cited in 47 percent of the reports, and the benzodiazepine was unspecified in 28 percent. Males accounted for 51 percent of the benzodiazepine patients. Non-Hispanic Whites represented 51 percent of the reports; Hispanics accounted for 34 percent; and non-Hispanic Blacks constituted 7 percent. Race/ethnicity was not documented for 7 percent of the reports. There were 40 patients (4 percent) younger than 18, while 14 percent of the patients were age 18–24, 23 percent were 25–34, 27 percent were 35–44, 20 percent were 45–54, and 12 percent were age 55 or older.

Unweighted DAWN *Live!* ED data from Broward County show that there were 2,335 benzodiazepine ED reports during 2005, ranking fourth behind alcohol, cocaine, and marijuana in the number of ED reports (exhibit 8). Seeking detoxification was the reason for 22 percent of the benzodiazepine reports, while overmedication accounted for 15 percent of the reports. The remaining 62 percent are considered substance misuse reports. Alprazolam was identified in 46 percent of the benzodiazepine ED reports, while 43 percent were unspecified benzodiazepines. Fifty-six percent of the benzodiazepine ED patients were male. Non-Hispanic Whites accounted for 82 percent of these patients, Hispanics/other represented 7 percent, and non-Hispanic Blacks accounted for 7 percent. One-fifth of these patients were younger than 25, including 5 percent of total users younger than 18. Fifteen percent of patients were age 18–24, 19 percent were 25–34, 28 percent were 35–44, 24 percent were 45–54, and 9 percent were 55 or older.

Benzodiazepines accounted for 843 (or 9 percent) of the 8,995 primary, secondary, and tertiary treatment drug mentions (excluding alcohol) from the BARC treatment programs during 2005 (exhibit 9). Benzodiazepines were cited by 11 percent of the 7,863 BARC clients in 2005. Of the 843 total benzodiazepines mentions, 17 percent (or 147 cases) were as the primary drug of abuse (exhibit 10). Eighty-six percent of the total benzodiazepines treatment mentions were from White, non-Hispanic clients, 11 percent were from Hispanics, and 3 percent were from Black, non-Hispanic patients. BARC client data are for clients age 18 and older. Those age 18–24 accounted for 17 percent of the benzodiazepines treatment mentions; 31 percent were age 25–34; and 52 percent were older than 34.

The NFLIS reported that Miami-Dade had 327 benzodiazepine exhibits during 2005, including 301 alprazolam cases, 10 clonazepam samples, 9 diazepam exhibits, and 7 for other benzodiazepines. During 2005, the Broward Sheriff's Office Crime Lab analyzed 648 benzodiazepine exhibits, including 561 alprazolam cases, 38 unspecified benzodiazepine cases, and 29 clonazepam samples.

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**Exhibit 1. DAWN ED Miami-Dade County Sample and Reporting Information: January–December 2005**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
21	19	19	9-10	0-1	0-1	8-9

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department.

SOURCE: DAWN *Live!*, OAS, SAMHSA, updated 5/22–23, 2006



**Exhibit 2. DAWN ED Ft. Lauderdale Sample and Reporting Information: January–December 2005**

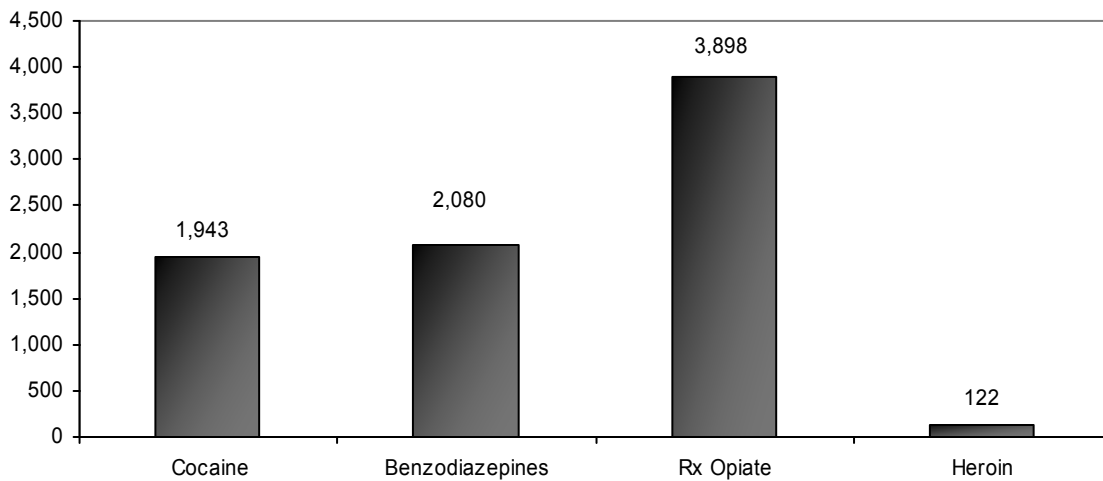
Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
27	22	22	4-8	1-2	0-1	14-17

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department.

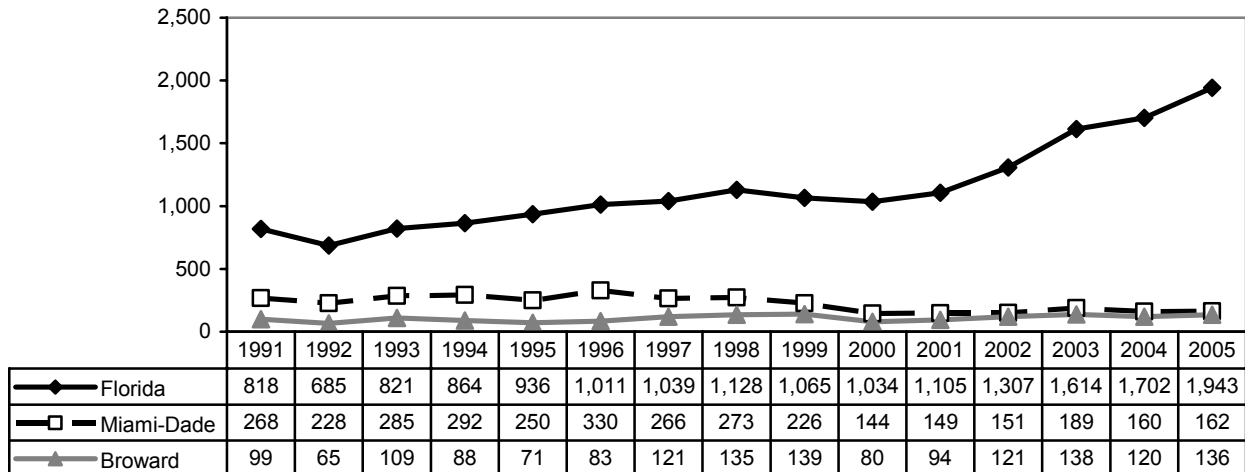
SOURCE: DAWN Live!, OAS, SAMHSA, updated 5/22–23, 2006

**Exhibit 3. Numbers of Drug-Related Deaths in Florida: January–December 2005**



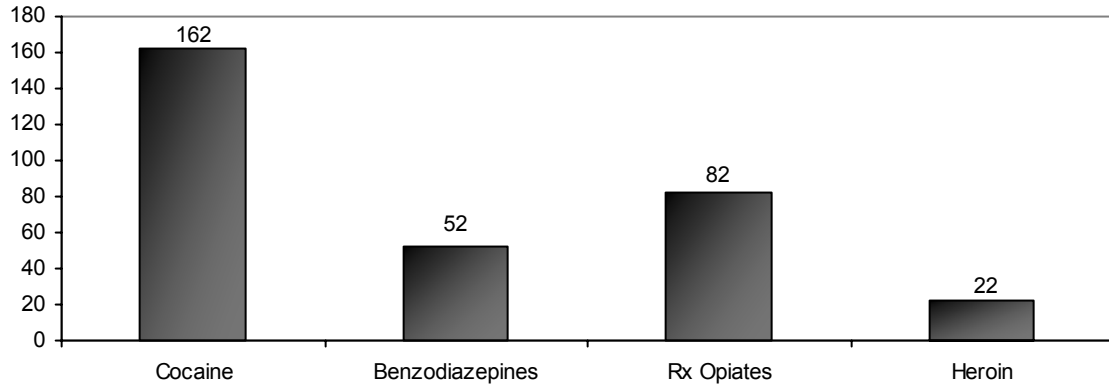
SOURCE: Florida Department of Law Enforcement, Florida Medical Examiners Commission Report 2005

**Exhibit 4. Cocaine-Related Deaths in Florida, Miami-Dade, and Broward Counties: 1991–2005**



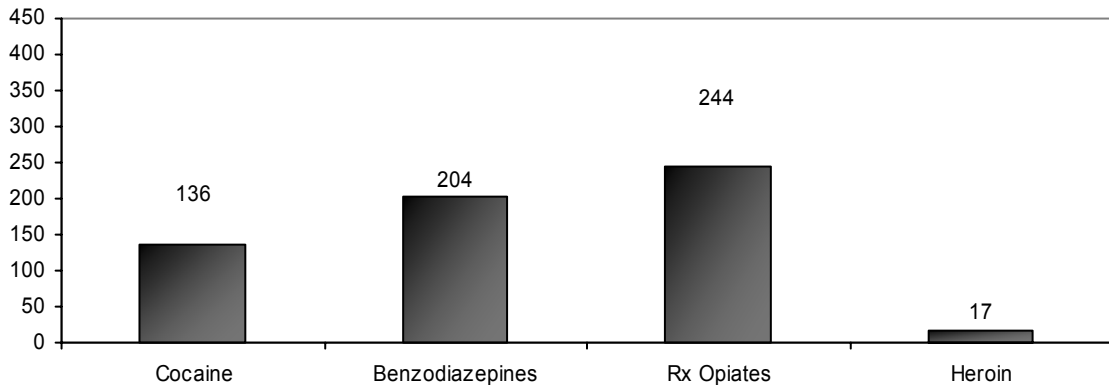
SOURCE: Florida Department of Law Enforcement, Florida Medical Examiners Commission Report 2005

**Exhibit 5. Numbers of Drug-Related Deaths in Miami-Dade County: January–December 2005**



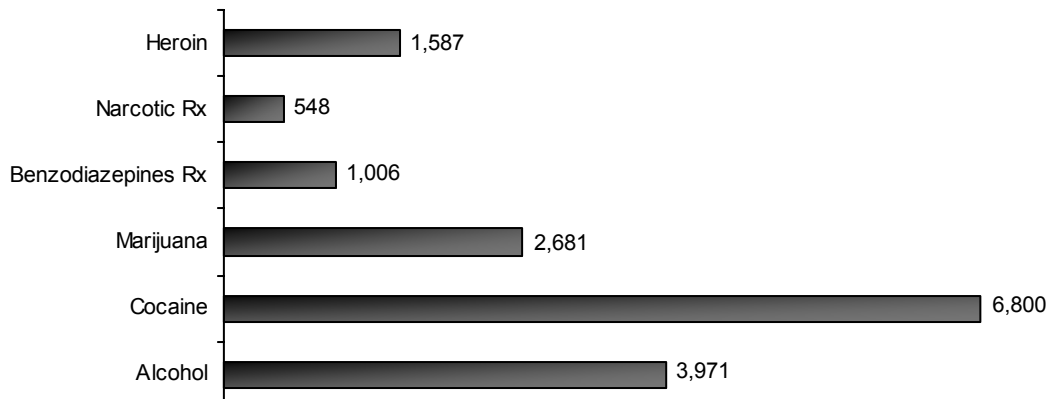
SOURCE: Florida Department of Law Enforcement, Florida Medical Examiners Commission Report 2005

**Exhibit 6. Numbers of Drug-Related Deaths in Broward County: January–December 2005**



SOURCE: Florida Department of Law Enforcement, Florida Medical Examiners Commission Report 2005

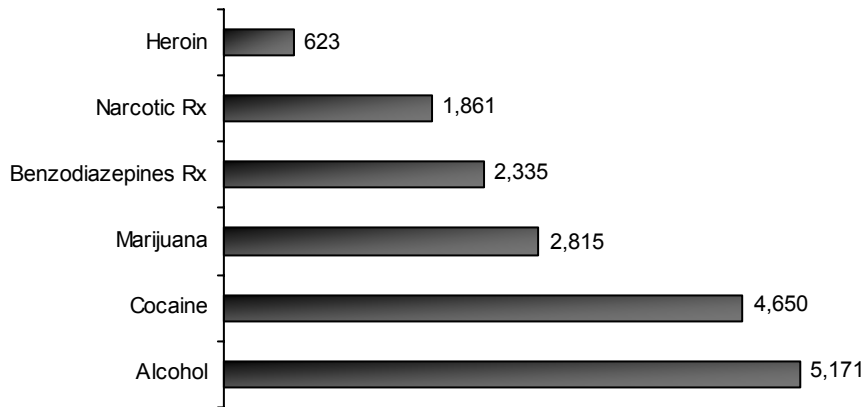
**Exhibit 7. Numbers of Selected Drug Reports in Miami-Dade County DAWN ED Data (Unweighted<sup>1</sup>), by Drug Category: January–December 2005**



<sup>1</sup>The unweighted data are from 9–10 Miami-Dade EDs reporting to DAWN in 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change.

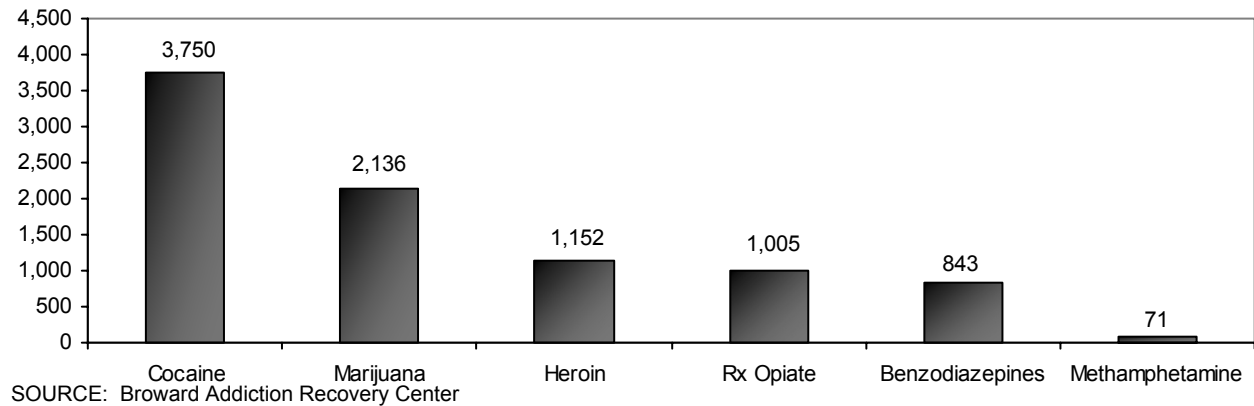
SOURCE: Miami-Dade County Division EDs DAWN *Live!*, OAS, SAMHSA, updated 5/22–23, 2006

**Exhibit 8. Numbers of Selected Drug Reports in Broward County DAWN ED Data (Unweighted<sup>1</sup>), by Drug Category: January–December 2005**



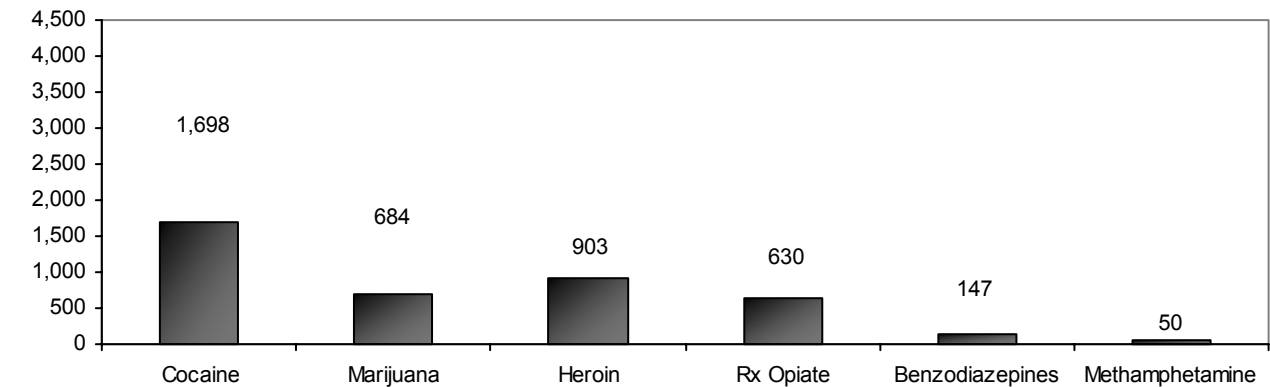
<sup>1</sup>The unweighted data are from 4–8 Ft. Lauderdale Division EDs reporting to DAWN in 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change.  
SOURCE: Miami-Ft. Lauderdale Division EDs, 2005; DAWN *Live!*, OAS, SAMHSA, updated 5/22–23/2006.

**Exhibit 9. Number of Broward Addiction Recovery Center Primary, Secondary, and Tertiary Drug Mentions: 2005**



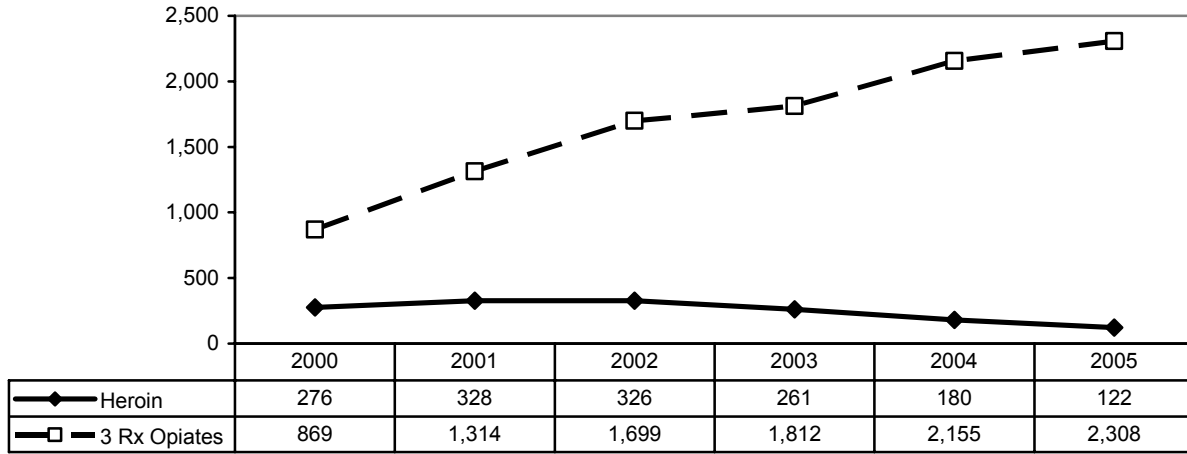
SOURCE: Broward Addiction Recovery Center

**Exhibit 10. Number of Broward Addiction Recovery Center Admissions by Primary Drug: 2005**



SOURCE: Broward Addiction Recovery Center

**Exhibit 11. Number of Florida Opiate-Related Deaths—Heroin, Oxycodone, Methadone, and Hydrocodone: 2000–2005**



SOURCE: Florida Department of Law Enforcement, Florida Medical Examiners Commission Report 2005

**Exhibit 12. Florida Prescription-Related Deaths, by Medical Examiner District: 2000–2005**

Benzodiazepines	ME District	Prescription Narcotics
185	Palm Beach	<b>377</b>
163	St. Petersburg	326
<b>204</b>	Broward	244
157	Jacksonville	290
90	Orlando	229
77	Melbourne	191
66	Tampa	196
52	Miami-Dade	82

SOURCE: Florida Department of Law Enforcement, Florida Medical Examiners Commission Report 2005

# Drug Abuse Trends: Minneapolis/St. Paul

Carol Falkowski<sup>1</sup>

## ABSTRACT

*Methamphetamine abuse and addiction remained apparent throughout the Twin Cities and the State in 2005, with some signs of leveling. Twelve percent of admissions to Twin Cities-area addiction treatment programs were for methamphetamine in 2005, compared with 3.1 percent in 2000. Yet methamphetamine-related accidental deaths fell to 14 in 2005, from 20 in 2004 and 24 in 2003. State drug task force data showed a 78-percent decrease in methamphetamine labs seized and a 75-percent reduction in arrests for methamphetamine manufacture (comparing third quarter of 2005 with the third quarter of 2004). Opiate-related accidental overdose deaths increased and outnumbered those for any other illicit drug with 102 in 2005, compared with 72 in 2004 and 69 in 2003. Most of these opiate-related deaths involved heroin, while some involved oxycodone, fentanyl, or methadone. Cocaine-related deaths also increased, with 62 in 2005 compared with 49 in 2004. Of the admissions to Twin Cities-area addiction treatment programs in 2005, 14.4 percent were for cocaine (mostly crack). Alcohol-related treatment admissions fell from 54.4 percent of admissions in 2000 to 45.8 percent in 2005. Marijuana accounted for 17.7 percent of treatment admissions in 2005, down from 22.3 percent in 2000. Cocaine abuse resulted in 3,552 hospital emergency department reports in 2005, compared with 3,102 for marijuana, 1,402 for methamphetamine, and 895 for heroin. Khat remained a drug of abuse within the Somali community, and opium continued to be abused within the Hmong community. Reports of adolescent abuse of prescription medications and over-the-counter products containing dextromethorphan continued as well.*

## INTRODUCTION

This report is produced twice annually for participation in the Community Epidemiology Work Group (CEWG) of the National Institute on Drug Abuse, an epidemiological surveillance network comprised of researchers from 21 U.S. areas who monitor emerging patterns and trends in drug abuse. By regularly compiling similar data from varied geographic re-

gions, the CEWG serves as an early warning network that identifies new drugs of abuse, new patterns of abuse, and new populations at risk. This report is compiled using the most recent data and information obtained from multiple sources. It is also available online at <[www.hazelden.org/research](http://www.hazelden.org/research)>.

## Area Description

The Minneapolis/St. Paul, “Twin Cities,” metropolitan area includes Minnesota’s largest city, Minneapolis (Hennepin County), the capital city of St. Paul (Ramsey County), and the surrounding counties of Anoka, Dakota, and Washington. Recent estimates of the population of each county are as follows: Anoka, 313,197; Dakota, 375,462; Hennepin, 1,239,837; Ramsey, 515,274; and Washington, 213,395. Together, these counties’ populations total 2,557,165, or roughly one-half of the Minnesota State population. In the five-county metropolitan area, 84 percent of the population are White.

African-Americans constitute the largest minority group in Hennepin County, while Asians are the largest minority group in Ramsey, Anoka, Dakota, and Washington Counties.

St. Paul has the largest Hmong population of any U.S. city. The Hmong were Laotian residents, many of whom were recruited by the CIA to fight in the “secret war” for the United States during the Vietnam War. Later, after their communist opponents won a long civil war, many fled to Thailand and eventually resettled in the United States and other countries.

Aside from the Twin Cities metropolitan area, the remainder of the State is less densely populated and more rural in character. Minnesota shares an international border with Canada, a southern border with Iowa, an eastern border with Wisconsin, and a western border with North Dakota and South Dakota, two of the country’s most sparsely populated States. Illicit drugs are sold and distributed within Minnesota by Mexican drug trafficking organizations, street gangs, independent entrepreneurs, and other criminal groups. Drugs are typically shipped or transported into the Minneapolis/St. Paul area for further distribution across the State.

## Data Sources

Information for this report was gathered from the sources shown below:

- **Addiction treatment data** are from addiction treatment programs (residential, outpatient, and extended care) in the five-county metropolitan

<sup>1</sup>The author is affiliated with Hazelden Foundation, Center City, Minnesota.

area as reported on the Drug and Alcohol Abuse Normative Evaluation System (DAANES) of the Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services (through 2005). Data on methadone treatment programs are from the Chemical Health Division, Minnesota Department of Human Services (as of May 2006).

- **Hospital emergency department (ED) data** are from the Drug Abuse Warning Network (DAWN) *Live!*, a restricted-access online query system administered by the Office of Applied Studies (OAS) of the Substance Abuse and Mental Health Services Administration (SAMHSA). Data derived from DAWN *Live!* represent unweighted drug reports in drug-related ED visits. A patient may report the use of multiple drugs (up to six) and alcohol. The DAWN *Live!* data are unweighted and, thus, are not statistical estimates for the reporting area. These DAWN *Live!* data *cannot* be compared with DAWN data from 2002 and before. A full description of DAWN is online at <[www.dawninfo.samhsa.gov](http://www.dawninfo.samhsa.gov)>. Data from participating hospital emergency departments in the Minneapolis and St. Paul Standard Metropolitan Statistical Area are from drug-related visits that occurred from January 1 through December 31, 2005. There are 28 eligible hospitals in the area; 26 are in the DAWN sample, of which 9 to 13 participated in 2005 (for completeness data, see exhibit 1). All DAWN cases are reviewed for quality control and based on this review, may be corrected or deleted, and are therefore subject to change. OAS, SAMHSA, prepared these data on April 17 and 18, 2006.
- **Mortality data** on drug-related deaths are from the Hennepin County Medical Examiner and the Ramsey County Medical Examiner (through December 2005). Hennepin County cases include those in which drug toxicity was the immediate cause of death and those in which the recent use of a drug was listed as a significant condition contributing to the death. Ramsey County cases include those in which drug toxicity was the immediate cause of death and those in which drugs were present at the time of death.
- **Poison center data** are from calls made to the Hennepin Regional Poison Center from January 1 through May 31, 2006, as reported on the Toxic Exposure Surveillance System (TESS).
- **Population survey data** are from the 2004/2005 Minnesota Treatment Needs Assessment Survey

of the Performance Measurement and Quality Improvement Division of the Minnesota Department of Human Services. Conducted by the University of Minnesota between October 2004 and July 2005, this survey collected data from 16,891 telephone interviews with persons age 18 and older, derived from a stratified random sample designed to generate more accurate estimates of minority populations and the 7 prevention planning regions of the State. The overall response rate was 55 percent. The complete report, entitled *Estimating the Need for Substance Abuse Treatment in Minnesota: 2004/2005 Minnesota Treatment Needs Assessment Survey* is online at <[www.dhs.state.mn.us/main/groups/healthcare/documents/pub/dhs\\_id\\_055443.pdf](http://www.dhs.state.mn.us/main/groups/healthcare/documents/pub/dhs_id_055443.pdf)>.

- **Crime lab data** for St. Paul are from the National Forensic Laboratory Information System (NFLIS). This system, which began in 1997, is sponsored by the U.S. Drug Enforcement Administration and collects solid dosage drug analyses conducted by State and local forensic laboratories across the country on drugs seized by law enforcement (January 1 through December 31, 2005). Methamphetamine purity data are from the Minneapolis Department of Health and Family Support crime lab (through October 2005). Other crime lab data are from the St. Paul Police Department Crime Lab (January 1 through December 31, 2005).
- **Data on human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS)** for 2005 are from the Minnesota Department of Health.
- **Additional information** is from interviews with treatment program staff, poison control specialists, narcotics agents, and school-based drug and alcohol specialists conducted in May 2006.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

Treatment admissions involving cocaine as the primary substance problem accounted for 14.4 percent of all admissions in 2005, compared with 13.8 percent in 2000 (exhibit 2). Most cocaine admissions in 2005 were for crack cocaine, 30.5 percent were women, and 50.3 percent were African-American (exhibit 3). The average age of first cocaine use was 25.4. Most (87.3 percent) patients receiving treatment for cocaine were age 25 or older; 64.8 percent were older than 35. Most patients (82.9 percent) had prior treatment episodes.

Incidents involving cocaine at Twin Cities emergency departments outnumbered those involving any other illegal drug in 2005 (exhibit 4). Of the 3,552 unweighted cocaine-related ED reports in 2005, 64.9 percent were males and 35.0 percent were females. Only 4 percent were younger than 18.

The Hennepin Regional Poison Center received 13 calls related to cocaine in 2006 (January through May).

Accidental overdose deaths involving cocaine increased in both counties in 2005. In Hennepin County, there were 50 cocaine-related deaths in 2005, compared with 39 in 2004 and 44 in 2003 (exhibit 5). In Ramsey County, there were 12 cocaine-related deaths in 2005, compared with 10 each in 2004 and 2003.

Cocaine accounted for 25.1 percent of the drug seizures reported to NFLIS in St. Paul in 2005 (exhibit 6). The St. Paul Police crime lab handled 190 pounds of cocaine in 2005. Cocaine generally sold for \$100 per gram, \$200 per “eightball” (one-eighth ounce), \$700–\$800 per ounce, and up to \$22,000 per kilogram. The price of a rock of crack was unchanged at \$10–\$20. Gangs in both cities were involved in the street-level retail distribution of crack cocaine.

Overall, 1.1 percent of adult Minnesotans reported using cocaine in the past year, according to the 2004/2005 Minnesota Treatment Needs Assessment Survey (exhibit 7).

### **Heroin/Opiates/Other Narcotics**

Heroin-related admissions to addiction treatment programs accounted for 5.3 percent of total admissions in 2005, compared with 3.3 percent in 2000 (exhibit 1). Of these 1,091 patients with heroin as the primary substance problem, 31.3 percent were women, less than 1 percent were younger than 18, and injecting was the most common route of administration (64.2 percent). Only 11.6 percent were in treatment for the first time (exhibit 2).

Heroin was involved in 895 unweighted ED reports in 2005 (exhibit 4); 66.7 percent of these patients were male and 0.5 percent were younger than 18.

The Hennepin Regional Poison Center received 2 calls related to heroin and 10 related to oxycodone in 2006 (January through May).

Opiate-related deaths, mostly accidental heroin overdoses, outnumbered cocaine-related deaths again in 2005. Combining Hennepin and Ramsey County figures, there were 102 opiate-related deaths in 2005

(exhibit 5), compared with 72 in 2004 and 69 in 2003. Fourteen of the 60 accidental opiate-related deaths in Hennepin County in 2005 involved methadone, as did 9 of the 42 deaths in Ramsey County. Nine Hennepin County deaths and one in Ramsey County involved fentanyl, a potent prescription synthetic narcotic analgesic. Three of the Hennepin County cases and four Ramsey County cases involved oxycodone. There was no evidence to date of street sales of heroin that also contains fentanyl, a combination responsible for a recent wave of accidental overdose deaths in several other U.S. cities, including Chicago and Detroit.

Prescription narcotic analgesics, used medically in the treatment of pain, were increasingly used non-medically as drugs of abuse for the heroin-like high they produce. Of particular concern within this category were drugs containing oxycodone—Percodan, Percocet (oxycodone combined with aspirin or acetaminophen), and the long-acting OxyContin. In 2005, 918 unweighted ED reports involved nonmedical use of prescription opiates/opioids and 300 involved the nonmedical use of oxycodone. Regarding treatment admissions, 3.3 percent reported “other opiates” as the primary substance problem in 2005, up from only 1.3 percent in 2000.

Very few (0.1 percent) adult Minnesotans reported heroin use in the past year, according to the 2004/2005 Minnesota Treatment Needs Assessment Survey (exhibit 7). In contrast, 3 percent of adult Minnesotans reported the nonmedical use of prescription drugs in the past year.

Lifetime nonmedical use of prescription drugs was reported by 8.5 percent of adult Minnesotans, and 6.2 percent reported lifetime nonmedical use of prescription pain relievers. The highest percentage of past-year prescription drug abuse was found among the 18–24-year-olds: 10.2 percent (exhibit 8). Regarding race/ethnicity, the highest proportion of prescription drug abuse was among American Indians (15.2 percent reported past-year use), and the lowest was among Asian Americans (1.5 percent) (exhibit 8). Only 1 percent of those who misused prescription drugs in the past year reported purchasing them on the Internet.

Numerous school-based counselors reported escalating abuse of pharmaceutical prescription drugs by adolescents, as well as the belief by many teens that, “If it’s a pill, it must be safe.” Attention deficit/hyperactivity disorder (ADHD) medications, such as methylphenidate, were the most available, while prescription narcotics were the most highly sought after.

Law enforcement seizures of “black tar” heroin increased substantially in Minneapolis from 76 grams of heroin at the Minneapolis lab in 2004 to 1,538 grams in 2005 (through October), a twentyfold increase. Purity levels ranged from 19.6 up to 86.8 percent. In 2004, all of the heroin seized in Minneapolis was white, off-white, or tan powder, whereas in 2005, all of it was black tar heroin of Mexican origin. Similar patterns did not occur in Ramsey County, where the St. Paul Police crime lab handled 42.8 grams of heroin in 2005. Retail heroin prices remained at \$20–\$40 per dosage unit or “paper,” \$300–\$400 per gram, and \$2,500 per ounce.

A very small segment of Minnesota’s Hmong immigrant population regularly smokes opium. Packages concealing opium continued to be shipped from Asia to residents of that Twin Cities community. In January 2005, 30 pounds of opium, with a reported street value of \$1.3 million, was seized as it was delivered to a suburban Woodbury couple.

### **Methamphetamine**

The far-reaching consequences and public expense related to the abuse and manufacture of methamphetamine remained apparent in the Twin Cities and throughout the State in early 2005, placing increased demands on law enforcement, the corrections system, environmental health officials, child protection workers, hospital emergency rooms, and treatment centers. In response, effective July 1, 2005, a new Minnesota law required 1) that pseudoephedrine pills must be sold from behind pharmacy counters, 2) that sales be limited to people age 18 and older, who must show identification and sign a log, and 3) that sales be limited to 6 grams (about two packages) every 30 days. It also established new criminal penalties, clean-up and notification requirements, child endangerment and vulnerable adult provisions, treatment grants to counties, and 10 new State law enforcement agents.

According to Minnesota Governor Tim Pawlenty, the number of methamphetamine labs significantly declined since the law took effect. Comparing State drug task force data from the third quarter of 2005 with the third quarter of 2004, he noted a 78-percent decrease in methamphetamine labs seized, a 75-percent reduction in arrests for methamphetamine manufacture, and a 66-percent reduction in the amount of methamphetamine seized.

Patients addicted to methamphetamine accounted for 12.0 percent of total treatment admissions in the Twin Cities in 2005 (exhibit 2), compared with 3.1 percent in 2000, and less than 1 percent in 1991. Women accounted for 36.2 percent of these admis-

sions, the highest percentage within any drug category. Almost all were White (90.4 percent), the average age of first use was 20.8, and 26.2 percent were in treatment for the first time (exhibit 3). Smoking was the most common route of administration for methamphetamine (68.9 percent). Using light bulbs as glass pipes for smoking methamphetamine was commonplace, especially among youth.

Unweighted hospital ED reports involving methamphetamine totaled 1,402 in 2005 (exhibit 4). Women accounted for 39.6 percent. Of these patients, 13.1 percent were younger than 18.

Ramsey County reported seven accidental deaths related to methamphetamine in 2005, compared with nine in 2004. Excluding MDMA-related deaths, Hennepin County reported 7 methamphetamine-related deaths in 2005, compared with 11 in 2004 (exhibit 4).

Seizures of methamphetamine by law enforcement accounted for 51 percent of the samples reported to the National Forensic Laboratory Information System. The St. Paul Police crime lab handled 235 pounds of methamphetamine in 2005. Methamphetamine prices were as low as \$70 per gram, \$200 for a “teener” (one-sixteenth ounce), \$240–\$280 for an “eightball” (one-eighth ounce), \$900–\$1,000 per ounce, and \$8,000–\$14,000 per pound.

Methamphetamine purity levels increased in Minneapolis in 2005. The overall weight-based purity level of methamphetamine analyzed at the Minneapolis lab in 2005 was 73.1 percent, compared with 57.8 percent in 2004, 26.9 percent in 2003, 18.3 percent in 2002, and 13.6 percent in 2001. According to law enforcement sources, this heightened purity reflects both an increase in the supply of imported drug and the capacity of law enforcement to intercept the supply higher up the distribution chain before it is diluted and adulterated for retail sale.

Less than 1 percent of adult Minnesotans (0.6 percent) reported using methamphetamines in the past year, according to the 2004/2005 Minnesota Treatment Needs Assessment Survey (exhibit 7). Methamphetamine offenders accounted for 51.7 percent of all drug offenders in State prisons in 2005, compared with 20 percent in 2001, according to the Minnesota Department of Corrections.

### **Other Stimulants**

Khat, a plant indigenous to East Africa and the Arabian Peninsula used for its stimulant effects in East Africa and the Middle East, maintained a presence



within the Somali immigrant community in the Twin Cities. Its active ingredients, cathinone and cathine, are controlled substances in the United States. Cathinone, a Schedule I drug, is present only in the fresh leaves of the flowering plant and converts to the considerably less potent cathine in about 48 hours. The plants are often wrapped in banana leaves to preserve freshness. Users chew the leaves, smoke it, or brew it in tea. In 2005, 3,485 pounds of khat were seized entering Minnesota according to U.S. Customs and Border Protection, with an estimated street value of \$1.25 million.

Methylphenidate (Ritalin), a prescription drug used in the treatment of ADHD, is also used nonmedically as a drug of abuse to increase alertness and suppress appetite by some adolescents and young adults. Crushed and snorted or ingested orally, each pill is sold for \$5 or simply shared with fellow middle school or high school students at no cost. It is sometimes known as a “hyper pill,” or “the study drug.” The Hennepin Regional Poison Center received six calls related to methylphenidate in 2006 (January through May), all but one of which involved people younger than 20.

### **Marijuana**

Marijuana accounted for more admissions into addiction treatment programs than any other illicit drug in the Twin Cities, with 3,631 admissions in 2005 (17.7 percent) (exhibit 2). Of these, 23.5 percent were women, and 39.2 percent were age 17 or younger (exhibit 3). For many (40 percent), it was their first treatment episode. The average age of first marijuana use was 13.8.

There were 3,102 unweighted reports involving marijuana at Twin Cities-area hospital EDs in 2005 (exhibit 4). Of these cases, nearly two-thirds were male and roughly one-quarter (27.0 percent) were people younger than 18. The Hennepin Regional Poison Center received 17 calls related to marijuana in 2006 (January through May), 70.6 percent of which involved people younger than 20.

Marijuana accounted for 10.5 percent of drugs seized in 2005, according to NFLIS data. Marijuana sold for \$5 per joint. Standard, commercial grade marijuana sold for \$50 per one-quarter ounce, \$150–\$175 per ounce, and \$600–\$900 per pound. Higher potency “BC Bud” from British Columbia sold for up to \$100 per one-quarter ounce, \$600 per ounce, and \$3,200 per pound.

In April 2005, one international marijuana smuggling case involved the seizure of 827 pounds of high po-

tency, British Columbian-grown marijuana, “BC Bud,” near the U.S.-Canadian border in northern Minnesota. It was one of the largest cases of its kind to date, according to Border Patrol officials, with marijuana valued at more than \$4 million. In December 2005, Washington County law enforcement arrested 4 suspects at a large-scale indoor marijuana growing operation involving 2,100 plants in 3 homes in suburban St. Paul Park. Another incident involved a Minneapolis teen who pleaded guilty in December to aiding and abetting the second-degree murder of an 18-year-old boy during the trade of an AK-47 rifle for marijuana in 2004. In May 2006, a father who stashed marijuana in his 6-year-old son’s Scooby Doo backpack that was discovered at the boy’s school captured front-page headlines in the St. Paul Pioneer Press.

Marijuana joints that are dipped in formaldehyde, which is often mixed with phencyclidine (PCP), are known as “wets,” “wet sticks,” “water,” or “wet daddies.” Marijuana joints containing crack cocaine are known as “primos.”

According to the 2004/2005 Minnesota Treatment Needs Assessment Survey, 6.7 percent of adult Minnesotans reported marijuana use in the past year (exhibit 7). The proportion was much higher among young people. Among those age 18–25, 22.4 percent used marijuana in the past year (exhibit 8). Regarding race/ethnicity, the highest proportion was among American Indians, with 21.0 percent reporting past-year use, and it was lowest among Hispanic Americans (4.7 percent) (exhibit 9).

### **Club Drugs**

According to the 2004/2005 Minnesota Treatment Needs Assessment Survey, 0.6 percent of adult Minnesotans reported using club drugs in the past year (exhibit 7). This category includes 3,4-methylenedioxymethamphetamine (MDMA), known as “ecstasy,” and gamma hydroxybutyrate (GHB), known as “G,” “Liquid E,” or “Liquid X,” a concentrated liquid abused for its stupor-like, depressant effects. GHB is also used as a predatory knockout, drug-induced rape drug that sells for \$10 by the capful. There were 163 unweighted hospital ED reports of MDMA in 2005 and 12 hospital ED reports of GHB (exhibit 4). The Hennepin Regional Poison Center received one call related to GHB in 2006 (January through May) and four calls related to hallucinogenic amphetamine.

### **Hallucinogens**

Lysergic acid diethylamide (LSD or “acid”) is a strong, synthetically produced hallucinogen, typically sold as saturated, tiny pieces of paper known as “blotter acid,” for \$5–\$10 per dosage unit. There were 20 unweighted hospital ED reports of LSD in 2005 (exhibit 4).

Phencyclidine (PCP), a dissociative anesthetic, is most often used in combination with marijuana, but it can also be injected or snorted. In 2005, there were 43 unweighted ED mentions of PCP and 56 for “miscellaneous hallucinogens” (exhibit 4).

### Other Drugs

Over-the-counter cough and cold products that contain dextromethorphan, a cough suppressant, continued to be abused by ingesting doses many times in excess of the recommended amount for hallucinogenic effects. Dextromethorphan (also known as “DXM”) is the active ingredient in Coricidin HBP Cough and Cold (known as “Triple Cs”) and Robitussin. Excessive dosages produce long-acting hallucinations, altered time perception, slurred speech, profuse sweating, uncoordinated movements, and high blood pressure. Being under the influence of these products is known as “Robo-tripping” or “Skittle-ing.” One area reported teens spinning bottles of liquid Robitussin on the end of a rope, like a makeshift centrifuge, attempting to separate out the active ingredient, dextromethorphan.

The Hennepin Regional Poison Center received 58 dextromethorphan-related calls between January 1 and May 31, 2006, of which 70.2 percent involved people younger than 20.

### Alcohol

Slightly less than one-half of admissions to Twin Cities addiction treatment programs (45.8 percent) were attributable to alcohol in 2005, compared with 54.4 percent in 2000 (exhibit 2) and 57.2 percent in 1998. Of the 9,410 treatment admissions for alcohol in 2005, 26.6 percent were women, 76.2 percent were White, and many had prior treatment experience (70.6 percent) (exhibit 3). The average age of first intoxication was 15.7.

There were 958 unweighted hospital ED reports involving underage drinking in 2005 (exhibit 4). The Hennepin Regional Poison Center received 55 calls related to beverage ethanol, 20 percent of which involved people younger than 20 in January through May 2006.

Overall, 81 percent of Minnesotans have used alcohol in their lifetime, 71 percent used in the past year, and 60 percent used in the past month, according to the 2004/2005 Minnesota Treatment Needs Assessment Survey. Binge drinking in the past month was reported by 19 percent of Minnesotans, with the highest proportions among 18–24 year-olds (exhibit 8) and American Indians (exhibit 9). Binge drinking is defined as five or more drinks on one occasion for males and four or more for females.

Past-month drinking and binge drinking were also more prevalent among U.S.-born respondents. Past-month drinking was reported by 61.7 percent of U.S.-born respondents, compared with 34.2 percent among those who were foreign-born. Among U.S.-born respondents, 19.5 percent reported binge drinking, compared with 8.1 percent among foreign-born respondents.

### Tobacco

Of Minnesota adults, 47 percent reported smoking in their lifetime, and 23 percent reported smoking in the past month. Past-month smoking was highest among 18–25-year-olds (40.3 percent) and American Indians (54.2 percent) (exhibits 8 and 9). Nicotine use remained widespread among patients in addiction treatment programs (exhibit 3).

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Most cases of HIV infection and AIDS in Minnesota in 2005 were in the Minneapolis/St. Paul area. Exposure categories for all Minnesota cases of HIV and AIDS combined were as follows: men who have sex with men (52 percent); injection drug use (7 percent); men who have sex with men and injection drug use (5 percent); heterosexual contact (12 percent); perinatal (1 percent); and unspecified/no interview (21 percent). Breakdowns by gender are presented in exhibit 10.

The level of hepatitis C virus (HCV), a blood-borne liver disease, among injection drug abusers remained high, with estimated rates as high as 90 percent among patients in methadone treatment programs.

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**Exhibit 1. Minneapolis/St. Paul DAWN ED Sample and Reporting Information: 2005**

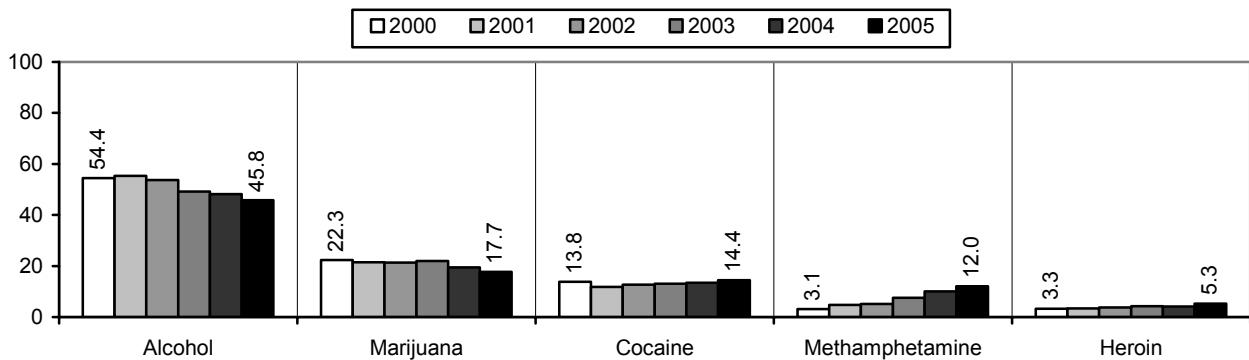
Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
28	26	26	9–12	0–1	0–1	13–17

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department.

SOURCE: DAWN *Live!*, OAS, SAMHSA, updated 4/17–4/18, 2006

**Exhibit 2. Admissions to Twin Cities Area Addiction Treatment Programs, by Primary Substance Problem and Percent: 2000–2005**



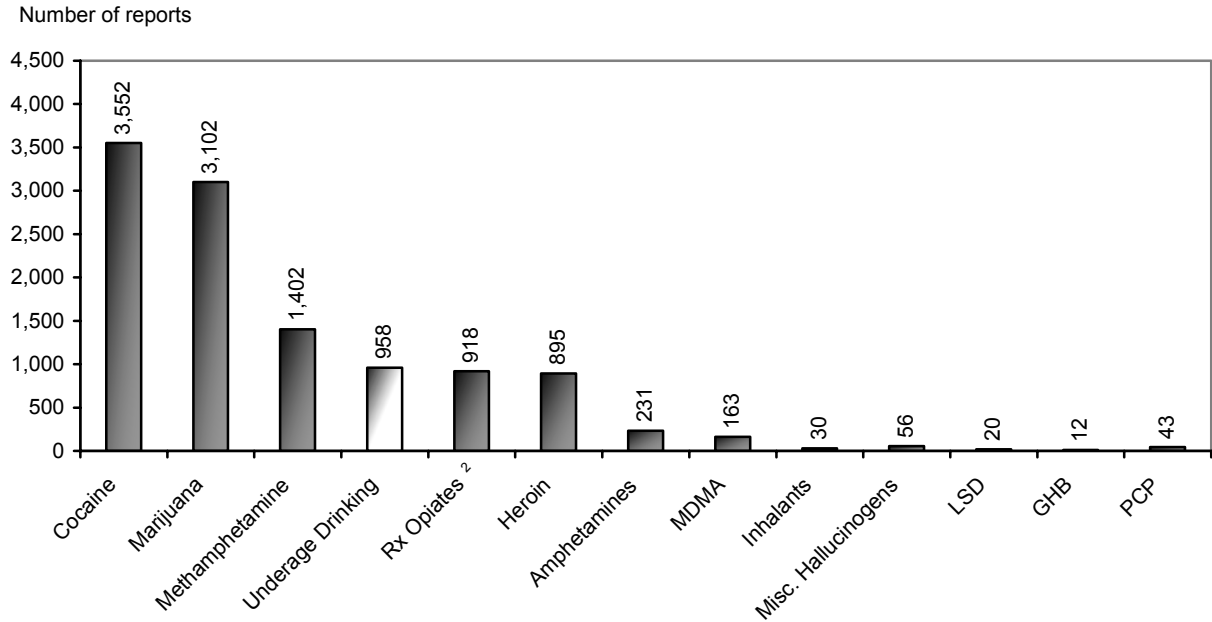
SOURCE: Drug and alcohol Abuse Normative Evaluation Systems (DAANES), Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, 2006

**Exhibit 3. Characteristics of Persons Admitted to Twin Cities Area Addiction Treatment Programs, by Primary Substance Problem and Percent: 2005**

<b>Total Admissions (N=20,562)</b>	<b>Alcohol n=9,410 (45.8%)</b>	<b>Marijuana n=3,631 (17.7%)</b>	<b>Cocaine n=2,953 (14.4%)</b>	<b>Metham- phetamine n=2,465 (12.0%)</b>	<b>Heroin n=1,091 (5.3%)</b>
Gender					
Male	73.4	76.5	69.5	63.8	68.8
Female	26.6	23.5	30.5	36.2	31.3
Race/Ethnicity					
White	76.2	63.9	40.9	90.4	55.2
African-American	13.0	24.2	50.3	1.0	36.1
Hispanic	6.1	5.1	4.5	4.2	4.9
American Indian	3.2	3.0	2.4	1.9	2.9
Asian	0.7	0.9	0.6	1.5	0.2
Age					
17 and younger	3.5	39.2	2.8	9.2	0.9
18–25	15.9	34.2	9.9	36.8	20.3
26–34	20.1	15.1	22.5	30.1	24.4
35 and older	60.6	11.4	64.8	23.9	54.3
Route of Admini- stration					
Smoking			82.4	68.9	4.0
Sniffing			16.2	14.1	31.8
Injecting			1.3	12.7	64.2
Oral				4.3	
Secondary Drug	Marijuana–54.8	Alcohol–66.2	Alcohol–54.8	Marijuana–49.0	Cocaine–43.2
Tertiary Drug	Cocaine–32.7	Alcohol–34.4	Alcohol–41.1	Alcohol–44.6	Cocaine–29.6
1st Treatment Epi- sode	29.4	40.0	17.1	26.2	11.6
Average Age 1st Use (in Years)	15.7	13.8	25.4	20.8	22.5
Daily Nicotine Use	60.4	65.4	69.8	78.1	70.5

SOURCE: Drug and Alcohol Abuse Normative Evaluation System (DAANES), Minnesota Department of Human Services, 2006

**Exhibit 4. Reports on Drug-Related ED Visits in Minneapolis/St. Paul, by Drug Category (Unweighted<sup>1</sup>): 2005**



<sup>1</sup>Cases are from 9 to 12 metro area hospital emergency departments from 1/1/05 through 12/31/05. All DAWN cases are reviewed for quality control and based on this review, are subject to change.

<sup>2</sup>Oxycodone reports totaled 776.

SOURCE: DAWN, OAS, SAMHSA, updated 4/17–18, 2006

**Exhibit 5. Drug-Related Deaths in Hennepin County and Ramsey County: 2000–2005**

County/Drug	2000	2001	2002	2003	2004	2005
<b>Hennepin County</b>						
Cocaine	43	37	34	44	39	50
Opiates	41	58	59	50	47	60
Methamphetamine	6 (incl. 3 MDMA)	8 (incl. 1 MDMA)	11 (incl. 3 MDMA)	15 (incl. 1 MDMA)	19 (incl. 8 MDMA)	10 (incl. 3 MDMA)
<b>Ramsey County</b>						
Cocaine	17	11	11	10	10	12
Opiates	17	19	18	19	25	42
Methamphetamine	11 (incl. 3 MDMA)	2	3	10	9	7

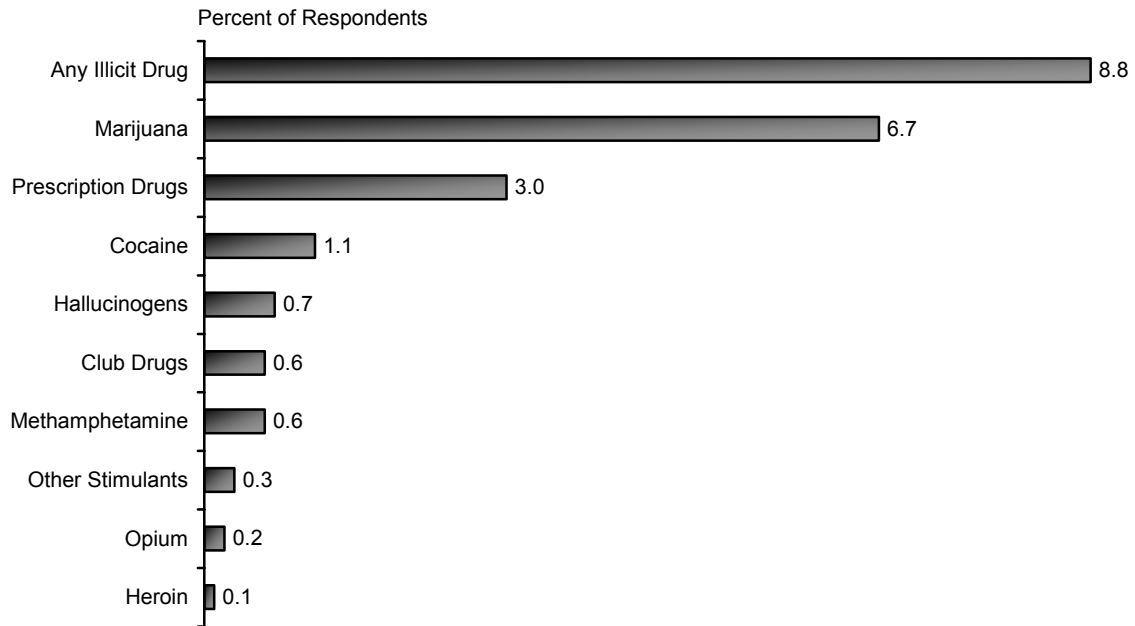
SOURCE: Hennepin County Medical Examiner and Ramsey County Medical Examiner, 2006

**Exhibit 6. Drug Seizures in St. Paul, Minnesota: 2005**

Drug	Number of Items	Percent of Total Items
Methamphetamine	4,600	51.0
Cocaine	2,264	25.1
Cannabis	950	10.5
MDMA	156	1.7
Heroin	144	1.6
Oxycodone	93	1.0
All other	814	9.1
Total	9,021	100.0

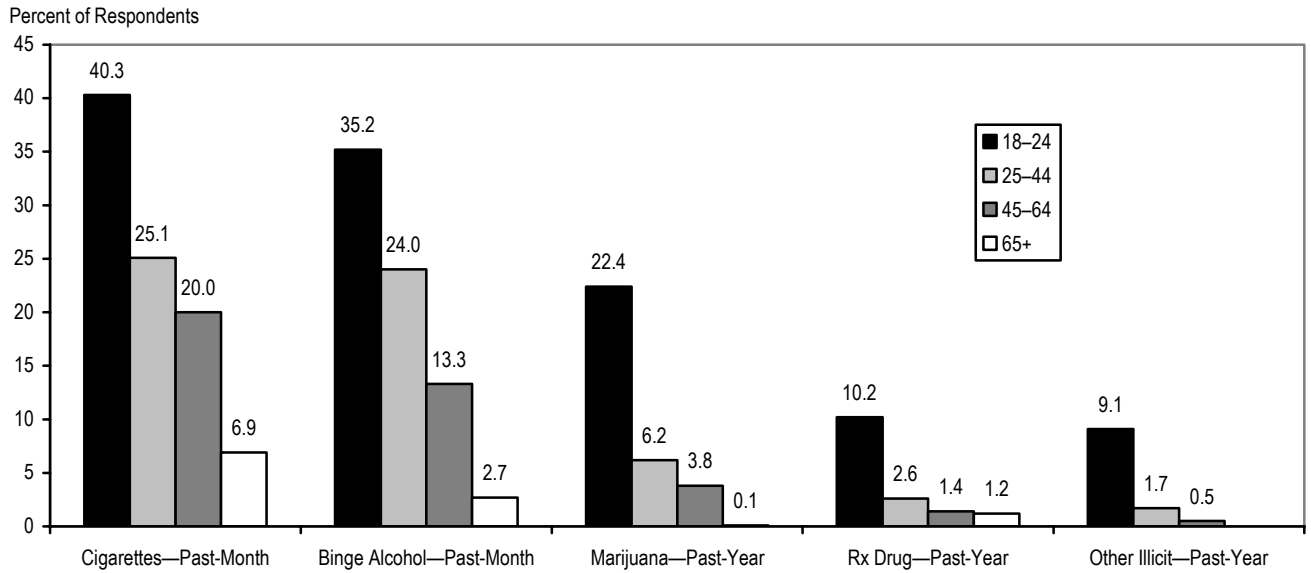
SOURCE: NFLIS, DEA

**Exhibit 7. Past-Year Drug Use in Minnesota: 2004–2005**



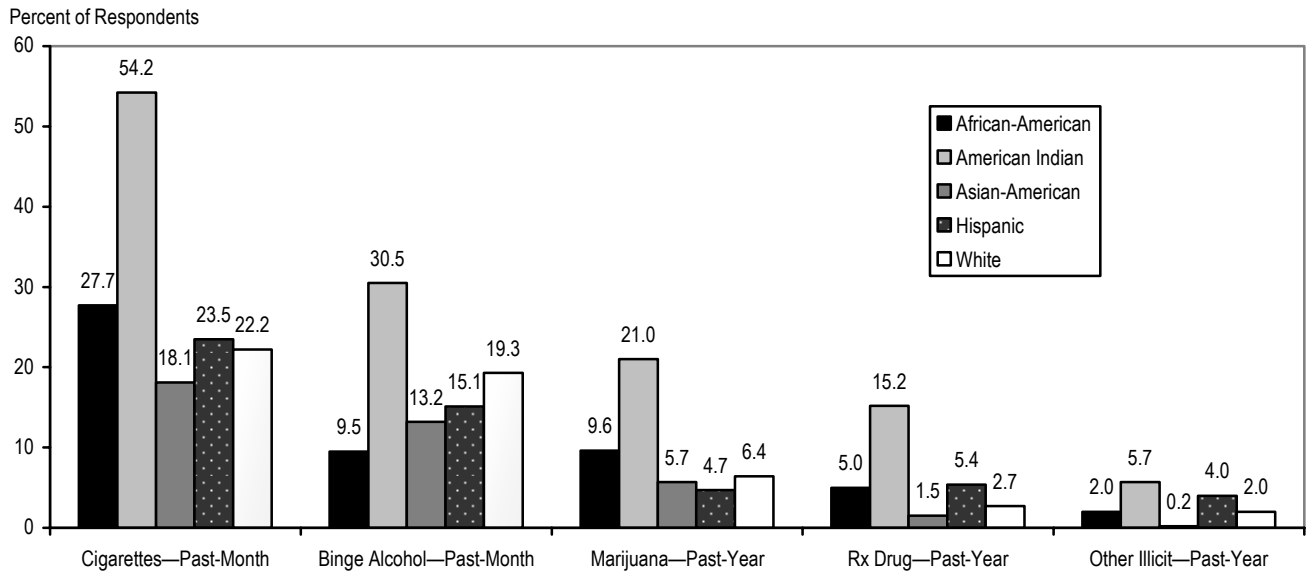
SOURCE: 2004–2005 Minnesota Treatment Needs Assessment Survey, Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services

**Exhibit 8. Substance Use in Minnesota, by Age Group, Time Period, and Percent: 2004–2005**



SOURCE: 2004–2005 Minnesota Treatment Needs Assessment Survey, Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, January 2006

**Exhibit 9. Substance Use in Minnesota, by Race/Ethnicity<sup>1</sup>, Time Period, and Percent: 2004–2005**



<sup>1</sup>Some subgroups, especially American Indians and Asians, have relatively small sample sizes which resulted in large confidence intervals for estimates. This requires a caution in interpreting these estimates.

SOURCE: 2004–2005 Minnesota Treatment Needs Assessment Survey, Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, January 2006

**Exhibit 10. Persons Living with HIV (non-AIDS) and AIDS in Minnesota, by Gender and Mode of Exposure In Minnesota: 2005**

Mode of Exposure <sup>1</sup>	Males		Females		Total	
	Total HIV and AIDS Cases	Percent	Total HIV and AIDS Cases	Percent	Total HIV and AIDS Cases	Percent
MSM	2,716	67	0	0	2,716	52
IDU	246	6	140	12	386	7
MSM/IDU	279	7	0	0	276	5
Heterosexual	134	3	482	41	616	12
Perinatal	15	<1	33	3	48	1
Other	40	1	12	1	52	1
Unspecified	250	6	233	20	483	9
No interview	385	9	268	23	653	12
<b>Total</b>	<b>4,065</b>	<b>100</b>	<b>1,168</b>	<b>100</b>	<b>5,233</b>	<b>100</b>

<sup>1</sup>MSM=Men who have sex with men. IDU=Injecting drug user. Heterosexual=For males, heterosexual contact with a female known to be HIV-positive, an injecting drug user, or a hemophiliac/blood product or organ transplant recipient. For females: heterosexual contact with a male known to be HIV-positive, bisexual, an injecting drug user, or a hemophiliac/blood product or organ transplant recipient. Perinatal=Mother-to-child HIV transmission. Other=Hemophilia patient/blood product or organ transplant recipient. Unspecified=Cases who did not acknowledge any of the risks listed above. No interview=Cases who refused to be, could not be, or have not yet been interviewed.

SOURCE: Minnesota Department of Health



# Patterns and Trends of Drug Abuse: Newark, New Jersey

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## ABSTRACT

*In this report, drug abuse indicators in Newark City, the Newark primary metropolitan statistical area (Newark PMSA), and the State of New Jersey are presented using substance abuse treatment data, medical examiner cases, and other information. Indicators analyzed in the report indicate a relatively stable time in Newark, the PMSA, and the State regarding specific trends and patterns in substance abuse. The indicators demonstrate that the primary drugs of concern in the Newark PMSA are heroin and cocaine. Most primary admissions (73.0 percent) in 2005 were for illicit drugs. Heroin accounted for 74.3 percent of all primary admissions for illicit drugs in the Newark PMSA, compared with 11.4 percent of admissions for primary crack/cocaine and 12.2 percent of admissions for primary marijuana use. Excluding alcohol, heroin accounted for 81.9 percent of admissions in Newark City (compared with 8.6 percent for cocaine and 8.6 percent for marijuana admissions). Heroin purity remains high: 52.7 percent in 2005. Between January 2005 and December 2005, cocaine accounted for 50.2 percent of items analyzed by NFLIS, followed by heroin (32.6 percent) and marijuana (8.6 percent). With respect to transmission mode among people living with HIV/AIDS, injection drug use alone accounted for 29 percent of cases statewide and 37 percent in Newark. Cocaine's role as a secondary and tertiary substance of abuse was explored in the January 2006 CEWG paper for Newark. This paper focuses instead on the differences in demographics and treatment modality when cocaine is the primary, secondary, or tertiary substance of abuse. Differences in age, treatment modality, gender, race/ethnicity, education, marital status, and employment status were explored, and measurable differences were found only for age, treatment modality, and race/ethnicity.*

## INTRODUCTION

### Area Description

The Newark primary metropolitan statistical area (PMSA) consists of five counties (Essex, Morris,

Sussex, Union, and Warren). In 2004, there were an estimated 2,079,050 residents in the PMSA, with 38 percent living in Essex County (which includes Newark City), 26 percent in Union County, 23 percent in Morris County, and the rest residing in the remaining counties. According to the 2000 Census, the population of the Newark PMSA is diverse with respect to race: 66 percent are White, 22 percent are Black, and 4 percent are Asian. Hispanics accounted for 13 percent of the PMSA population in 2000. There is also a wide variation in racial/ethnic breakdowns for each county. In Essex County, 45 percent of the population are White and 41 percent are Black. Union County is 65 percent White and 21 percent Black. By comparison, Morris County is 87 percent White and 3 percent Black; Sussex County is 96 percent White and 1 percent Black; and Warren County is 95 percent White and 2 percent Black. Hispanics accounted for 20 percent of the population in Union, 15 percent in Essex, 8 percent in Morris, 3 percent in Sussex, and 4 percent in Warren. The counties are also very diverse by socioeconomic status. In the Newark PMSA as a whole, 5.8 percent of families with children younger than 18 live below the poverty level. For counties within the PMSA, the poverty status for families with children younger than 18 is 18 percent in Essex, 3 percent in Morris, 4 percent in Sussex, 9 percent in Union, and 5 percent in Warren. These social, demographic, and economic variations suggest substantial differences in drug use behaviors of residents by county.

New Jersey is situated between major industrial markets in New York and Pennsylvania and has been referred to as the “crossroads of the east.” It is a gateway State, with major interstate highways, roadways, airports, seaports, and other infrastructures capable of accommodating large amounts of passenger and cargo traffic from both the eastern and western parts of the United States. New Jersey can therefore be considered an ideal strategic, as well as vulnerable, corridor for the transportation of drug contraband and illicit currency. According to the Drug Enforcement Administration (DEA), “drug trafficking activity and drug prices in the Newark Division area of responsibility have remained relatively stable over the past year.”<sup>2</sup>

New Jersey has one of the highest concentrations of pharmaceutical and biochemical manufacturing firms in the country. According to the DEA, the primary sources of diverted pharmaceutical drugs in New Jersey are doctor shopping, prescription forgery, and organized prescription rings. The forging of prescriptions is a continuing problem among employees in

<sup>1</sup>The authors are affiliated with the New Jersey Department of Human Services, Trenton, New Jersey.

<sup>2</sup>DEA Briefs and Background State Fact Sheets. New Jersey 2006, <<http://www.usdoj.gov.dea.pubs/states/newjersey.html>>.

the medical field who use their positions to gain access to blank prescription pads. The most commonly diverted pharmaceuticals are the benzodiazepines and opiates, especially the hydrocodone products, with Percocet, Percodan, Xanax, Dilaudid, Valium, and Vicodin representing the most common brand name drugs diverted.

### Illicit Substances in the News

While the outbreak did not reach the Newark City area of New Jersey, the southern part of New Jersey, namely the Camden City area, was one of the sites of the fentanyl-laced heroin outbreaks that occurred in April 2006. The director of the New Jersey poison control center has indicated in published newspaper reports that there have been 10 confirmed fentanyl deaths in New Jersey and an additional 10 to 20 unconfirmed fentanyl deaths since April 2006. Additionally, anecdotally, emergency rooms in the southern counties of New Jersey saw more than 100 possible cases of fentanyl poisonings. While many of the details of these cases cannot be confirmed, the poison control center has verified that these numbers are not inclusive of any fentanyl deaths involving the patch form of the drug.

### Data Sources

This report uses data from various sources, as indicated below:

- **Drug treatment data** were obtained from the New Jersey Substance Abuse Monitoring System (NJSAMS) and the Alcohol and Drug Abuse Data System (ADADS), statewide, episode-based data systems operated by the Division of Addiction Services in the Department of Human Services. The data for 2005 include profiles by primary drug of abuse in Newark City, the Newark PMSA, and the State. The 2005 Treatment Episode Data Set (TEDS), Office of Applied Studies (OAS), was used to depict additional demographic characteristics of statewide admissions and was accessed June 1, 2006.
- **Drug seizure and law enforcement data** were provided by the National Drug Intelligence Center's "National Drug Threat Assessment 2005" released in February 2005, and the DEA's fact sheet, "New Jersey 2006," updated in February 2006.
- **Forensic analysis data** on specific drugs were provided by the DEA's National Forensic Laboratory Information System (NFLIS) for January through December 2005.

- **Mortality data** were obtained from the Division of Criminal Justice, State Medical Examiner Office. The data cover the period of January 1, 2005, through December 31, 2005. The data are presented by county, and this paper references only Essex County, where Newark is located. The report examines both individual categories of substances, as well as common combinations.
- **Illicit drug price and purity data** on heroin purity and pricing was provided by DEA's Domestic Monitor Program (DMP) and was published in June 2005. Additional pricing data were provided by the DEA, Newark Field Division, for January through March 2006.
- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** were obtained from the statewide AIDS Registry maintained by the New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control, HIV/AIDS Surveillance Program. Data for the State were compiled as of December 31, 2005. Data for the Newark PMSA and Newark City were compiled as of June 30, 2005.

### SPECIAL CONSIDERATION: COCAINE AS A PRIMARY, SECONDARY, OR TERTIARY DRUG

While heroin is the drug listed as the primary substance of abuse in the majority of the treatment admissions in New Jersey, an analysis of primary, secondary, and tertiary treatment admissions indicates a substantial number of admissions for cocaine. Cocaine's role as a secondary and tertiary substance of abuse was explored in the January 2006 CEWG paper for Newark. This analysis focuses instead on the differences in demographics and treatment modality when cocaine is the primary, secondary, or tertiary substance of abuse. Differences in age, treatment modality, gender, race/ethnicity, education, marital status, and employment status were explored, and measurable differences were found only for age, treatment modality, and race/ethnicity.

In New Jersey as a whole, there were 6,044 admissions with cocaine as the primary drug of abuse, 13,061 admissions with cocaine as the secondary drug of abuse, and 2,729 admissions with cocaine as the tertiary drug of abuse in 2005. In Newark City, there were 353 admissions with cocaine as the primary drug of abuse, 1,896 admissions with cocaine as the secondary drug of abuse, and 132 admissions with cocaine as the tertiary drug of abuse in 2005.

In New Jersey, those admitted for treatment with cocaine listed as the tertiary drug of abuse were younger than those admitted for primary or secondary cocaine abuse. More than 40 percent (42.1 percent) of those admitted for tertiary cocaine abuse were younger than 25, compared with 28.2 percent of those admitted for secondary cocaine abuse and 25.0 percent admitted for primary cocaine abuse (exhibit 1). Conversely, those admitted in Newark City with cocaine listed as the tertiary drug of abuse were likely to be older than those admitted for primary or secondary cocaine abuse. This age differential, however, is not as striking as what is seen on the State level. More than one-half (53.0 percent) of those admitted for tertiary cocaine abuse were age 40 or older, compared with 51.3 percent admitted for secondary cocaine abuse and 48.2 percent of those admitted for primary cocaine abuse (exhibit 2).

In terms of treatment modality, in the State, primary abusers of cocaine were more likely to be treated in intensive outpatient (28.6 percent), standard outpatient (26.4 percent), and partial hospitalization (19.6 percent). Secondary abusers of cocaine are most likely to receive treatment from hospital inpatient detoxification (21.2 percent) and opioid outpatient services (17.5 percent) (exhibit 3). The same model of distribution by cocaine admission type held when analyzing admissions for Newark City (exhibit 4).

When race was analyzed as a variable, statewide, clients in treatment for tertiary abuse of cocaine were more likely to be White and less likely to be Black/African-American than their counterparts being treated for primary or secondary cocaine abuse. Approximately three-quarters (75.0 percent) of tertiary cocaine clients were White, compared with 58.5 percent of secondary cocaine clients and 57.6 percent of primary cocaine clients (exhibit 5). This pattern did not hold for Newark City.

Little or no differences were noted in New Jersey or Newark City when cocaine admissions were analyzed by gender, ethnicity, education, marital status, or employment status.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

Treatment indicators for primary cocaine/crack admissions have remained relatively constant in Newark and in the State for the past year, following a slight increase in 2004.

In data for January through December 2005, primary cocaine/crack treatment admissions accounted for 8.0

percent of all admissions in Newark City (compared with 7.2 percent in 2004) and for 8.6 percent of admissions for illicit drugs (i.e., excluding alcohol, compared with 7.9 percent in 2004) (exhibits 6 and 7).

In the Newark PMSA, the proportion of crack/cocaine admissions among all admissions was stable: 9 percent in 2005, the same as in 2004, but an increase over the 7.8 percent recorded in 2003. The proportion of primary crack/cocaine admissions (excluding alcohol) in the PMSA was somewhat higher than in the city—11.4 percent in 2005, consistent with the 11.3 percent of 2004, but up slightly from 9.8 percent in 2003.

The proportion of primary cocaine/crack admissions (excluding alcohol) statewide increased slightly from 14.0 percent in 2003 to 15.1 percent in 2004 and then held steady for 2005 at 15.4 percent. In 2005, the proportion of statewide primary crack/cocaine admissions (excluding alcohol) was much higher than reported in Newark City (7 percentage points higher) and 4 percentage points higher than in the PMSA (exhibit 6). TEDS data for the State for 2005 indicate that the racial differences in crack admissions continue to weaken. In 2005, 50 percent of those admitted to treatment for crack were Black or African-American, and 49 percent were White (exhibit 8). This compares with 53 percent Black or African-American and 43 percent White in 2003. In terms of gender, males represented 56.4 percent of admissions in 2005, compared with 43.5 percent of females. Admissions for primary abuse of powder cocaine, however, were substantially more likely to be White than Black (72 versus 26 percent) and male rather than female (70 versus 30 percent).

The mortality data from the New Jersey Medical Examiner indicate that there were 135 deaths in Essex County in 2005 in which cocaine was mentioned (exhibit 9). These 135 mentions represent 35.7 percent of all drug mentions in Essex County and 40.5 percent of all drug mentions excluding alcohol. These mentions all are recorded from deaths noted as drug-related fatalities in which the decedent tested positive for cocaine.

Between January and December 2005, cocaine/crack accounted for 50.2 percent of the 3,312 items analyzed by NFLIS, the highest proportion for any drug (exhibit 10).

According to the National Drug Intelligence Center (NDIC) National Drug Threat Assessment (NDTA) 2005, 58.2 percent of law enforcement agency respondents in the Northeast reported that cocaine was readily available (availability described as either high

or moderate) (exhibit 11). Additionally, 38.5 percent of law enforcement officials throughout the Northeast identified cocaine as their greatest drug threat. More cocaine is seized in the State than any other illicit drug. According to Federal-wide Drug Seizure System (FDSS) data, Federal law enforcement officials seized 2,307 kilograms of cocaine in 2005. This is more than four times the amount seized in 2002.

Cocaine trafficking and abuse often contribute to violent and property crime, a fact that contributes to the overall threat posed by the drug. According to National Drug Threat Survey 2004 data, 48.4 percent of State and local law enforcement agencies nationwide identify cocaine (powder or crack) as the drug that most contributes to violent crime in their areas, higher than any other drug including methamphetamine (34.2 percent). Moreover, a higher percentage of agencies (40.6 percent) identify cocaine as the drug that most contributes to property crime in their areas than any other drug, including methamphetamine (32.7 percent).

Between January and March 2006, the retail price for powder cocaine in northern New Jersey was \$30–\$100 per gram; crack sold for \$30–\$80 per gram (exhibit 12).

### **Heroin**

Indicators for heroin were relatively constant in Newark and New Jersey in 2005. The only major change was that slightly more admissions for treatment of a primary heroin addiction were noted.

As a proportion of illicit drug treatment admissions, primary heroin accounted for 81.9 percent in Newark City in 2005, which was unchanged from the 81.8 percent in 2004 (exhibits 6 and 7). In the Newark PMSA, primary heroin admissions accounted for 74.3 percent of illicit drug admissions in 2005, slightly up from the 72.7 percent of admissions recorded in 2004, and for 58 percent of all treatment admissions (including alcohol), the same as in 2004.

Primary heroin admissions predominated across the State in 2005, accounting for 62.3 percent of all admissions for drugs other than alcohol (exhibit 6). This is slightly higher than the 59.2 percent in 2004 (exhibit 7). TEDS data for 2005 indicate that, statewide, 63.2 percent of primary heroin admissions were White and 35.1 percent were Black (exhibit 8). About 17 percent were Hispanic. Primary heroin users were also predominately male (65.7 percent).

The mortality data from the New Jersey Medical Examiner indicate that there were 118 drug-related

deaths in Essex County in 2005 in which opiates were identified (exhibit 9). These 118 mentions represent 31.2 percent of all drug mentions in Essex County and 35.4 percent of all drug mentions excluding alcohol. These mentions were all recorded from drug-related fatalities in which the decedents tested positive for an opiate.

Although heroin is the leading drug among treatment admissions in Newark, it accounted for only 32.6 percent of the 3,312 items analyzed by NFLIS between January and December 2005 (exhibit 10).

According to the NDTA 2005, 37.7 percent of Northeastern law enforcement agencies reported that heroin was readily available, while 28.5 percent of agencies identified heroin as the greatest drug threat (exhibit 11). According to FDSS data, Federal law enforcement officials in New Jersey seized 91 kilograms of heroin in 2000, 169 kilograms in 2001, 188 kilograms in 2002, 184 kilograms in 2004, and 158 kilograms in 2005.

Heroin purity is still very high, but it decreased somewhat in 2003 in the Newark PMSA. In 2001, heroin was 70.5 percent pure, and in 2002, it was 71.4 percent pure. In 2003, however, heroin purity dropped to 61.3 percent pure. The decline in heroin purity continued in 2004, when the purity dropped to 52.7 percent. Despite this continuing decrease in purity, Newark still had the most pure South American heroin in any of the CEWG areas. The price per gram between January and March 2006 was \$80–\$100 (exhibit 12). According to the DMP, almost all of the heroin sold in the Newark PMSA is South American. The DMP also notes an increase in the average price of heroin in Newark. In 2004, heroin cost \$0.50 per milligram pure, compared with \$0.33 in 2003 and \$0.39 in 2002.

### **Other Opiates**

In 2005, other opiates were categorized with heroin in admissions analysis because of their small numbers. However, in State Fiscal Year (SFY) 2005, the last time this group was analyzed separately, primary treatment admissions for “other opiates or synthetics” in Newark City totaled nine (0.2 percent of the admissions, excluding alcohol admissions). The number was higher in the PMSA—131 (1.2 percent of the admissions, excluding alcohol). This is unchanged from 2004, when figures for the city and PMSA, respectively, were 0.2 and 1.2 percent. In the State as a whole, primary admissions for other opiates in SFY 2005 totaled 993, or 2.6 percent of all admissions, excluding alcohol. In 2004, the number of primary admissions for other opiates totaled 1,142, represent-

ing more than double the admissions reported in 1997 (513). The biggest increase in numbers of other opiate admissions occurred between 2000 (592) and 2002 (1,124). In the TEDS data for 2005, 94.4 percent of the primary “other opiate” admissions were White and 5 percent were Black (exhibit 8). Only 6.2 percent of the primary “other opiate” admissions were Hispanic. About 61.5 percent were male.

### **Methamphetamine and Amphetamines**

In 2005, only 77 primary, secondary, or tertiary amphetamine treatment admissions were reported in the Newark PMSA. As a drug of abuse, amphetamines were also rare in the State. There were 371 primary, secondary, or tertiary amphetamine admissions in 2005. The number of total admissions for amphetamine abuse demonstrated a relatively stable number compared with what has been reported in the past. According to the 2005 TEDS data, amphetamine users are more likely to be male than female (64 percent versus 36 percent, respectively). Amphetamine users are also significantly more likely to be White (81 percent) than Black (12 percent) or Hispanic (8 percent). Approximately 43 percent of amphetamine users are age 25 or younger, one-quarter are between the ages of 26 and 35 (27.1 percent), and 29.3 percent are older than 35.

There was only one amphetamine/methamphetamine mention recorded by the New Jersey Medical Examiner’s Office in Essex County in 2005 (exhibit 9).

Methamphetamine availability is limited in the Northeast. According to the NDTA 2005, 6.4 percent of Northeastern law enforcement agencies reported that methamphetamine was readily available, and 2.9 percent of agencies identified methamphetamine as their greatest drug threat (exhibit 11). According to FDSS data, Federal law enforcement officials in New Jersey seized 10.2 kilograms of methamphetamine in 2005, a substantial increase over the 0.8 kilogram seized in 2004.

Methamphetamine prices at the wholesale and mid-level have fluctuated in New Jersey. These price variations resulted primarily from increased costs associated with obtaining methamphetamine (particularly crystal methamphetamine) from other regions of the Nation and other countries and transporting the drug to New Jersey. Methamphetamine previously sold for \$8,500–\$20,000 per kilogram and \$800–\$1,000 per ounce; between January and March 2006, methamphetamine sold for \$8,000–\$18,000 per pound and \$2,800–\$6,700 per ounce of crystal “ice.” On the retail level, methamphetamine sold for between \$65 and \$80 per gram (exhibit 12).

### **Marijuana**

Primary marijuana treatment admissions represented 8.0 percent of all treatment admissions in Newark City in 2005, compared with 9.0 percent in the Newark PMSA and 13.0 percent in the State as a whole. As a proportion of illicit drug treatment admissions, marijuana accounted for 8.6 percent in Newark City and 12.2 percent in the Newark PMSA (exhibit 6) in 2005, both remaining relatively constant from 2004 (exhibit 7).

Statewide primary marijuana admissions (excluding alcohol) were more than twice the proportion of those in Newark City (17.9 vs. 8.6 percent) and about 5 percentage points higher than those in the Newark PMSA (17.9 vs. 12.2 percent) (exhibit 6). Statewide TEDS data for 2005 indicate that 79.7 percent of primary marijuana admissions were male, 55.9 percent were White, and 41.6 percent were Black (exhibit 8). About 19.4 percent of primary marijuana admissions statewide were Hispanic. Across the State, approximately 29 percent of primary marijuana admissions were younger than 18, and about 71 percent were younger than 26.

The mortality data from the New Jersey Medical Examiner indicate that there were six cannabinoid-related deaths in Essex County in 2005 (exhibit 9). The six mentions represent 1.6 percent of all drug mentions in Essex County and 1.8 percent of all drug mentions excluding alcohol. These are mentions in a drug-related fatality in which the decedent tested positive for cannabinoids.

Among the 3,312 items analyzed by NFLIS between January and December 2005, marijuana accounted for 8.6 percent (exhibit 10).

Marijuana is the most widely available illicit drug in New Jersey. According to the NDTA 2005, 88.3 percent of Northeastern law enforcement agencies report that marijuana is readily available, although only 23.0 percent of Northeastern law enforcement agencies identified marijuana as their greatest drug threat (exhibit 11).

According to FDSS data, 269.5 kilograms of marijuana were seized by law enforcement officials in New Jersey in 2005. This was a substantial decrease from the 1,196 kilograms of marijuana seized in 2004.

Between January and March 2006, locally produced marijuana sold in Newark for \$5–\$30 per bag (exhibit 12).

### **Methylenedioxymethamphetamine (MDMA or Ecstasy)**

MDMA is available in the Northeast. According to the NDTA 2005, 15.1 percent of Northeastern law enforcement agencies reported that methamphetamine was readily available, and 1.3 percent of agencies identified MDMA as their greatest drug threat (exhibit 11). Between January and March 2006, MDMA sold for \$4–\$25 per tablet (exhibit 12).

### **Phencyclidine (PCP)**

Between January and March 2006, PCP sold for \$15–\$25 per bag and \$300–\$350 per ounce (exhibit 12).

### **Pharmaceuticals**

A variety of pharmaceuticals were mentioned in drug-related deaths reported by the Medical Examiner in Essex County. Benzodiazepines were mentioned 34 times, antidepressants were mentioned 21 times, acetaminophen was mentioned 8 times, and sedatives were mentioned 3 times in 2005. At a total of 66 mentions, pharmaceuticals surpass alcohol mentions and total one-half of cocaine mentions. These mentions were all recorded from a drug-related fatality in which the decedent tested positive for a pharmaceutical.

Although most law enforcement agencies are concerned about diversion and abuse of prescription drugs, national-level drug survey data show that only a small percentage of State and local law enforcement agencies report that pharmaceuticals are the greatest drug threat to their areas. However, that percentage may be increasing. NDTA 2005 indicates that 3.1 percent of State and local law enforcement agencies nationwide identify pharmaceuticals as their greatest drug threat, up from 2.4 percent in 2003. Regionally, more State and local law enforcement agencies in the Northeast (4.9 percent) identify pharmaceuticals as their greatest drug threat than is the case in other regions.

Diverted pharmaceuticals often are sold behind closed doors and occasionally at open-air drug markets, primarily in Essex (Newark and Irvington), Camden, and Salem Counties. According to the DEA Newark Division, diverted OxyContin sold for \$30–\$50 per tablet during the time period of January through March 2006. Diverted Percocet sold for \$3 to \$6 per tablet, and diverted Xanax sold for \$7 per tablet during that same period (exhibit 12).

### **Alcohol**

In the Newark PMSA, alcohol-only or alcohol-in-combination treatment admissions as a proportion of all admissions were relatively stable at 21 percent in 2005, compared with 20 percent in 2004.

The mortality data from the New Jersey Medical Examiner indicate that there were 45 mentions of alcohol in drug-related deaths in Essex County in 2005 (exhibit 9). These 45 mentions represent 11.9 percent of all drug mentions in Essex County. These are mentions included in a drug-related fatality in which the decedent tested positive for alcohol.

### **INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

Through December 2004, New Jersey ranked fifth nationally in cumulative AIDS cases, third in cumulative pediatric AIDS cases, and fifth in cases reported in 2004. As of December 31, 2005, there were 67,155 cumulative HIV/AIDS cases reported in New Jersey, about 1,839 of which were reported between January and December 2005. Of the cumulative cases, 26,558 (39.5 percent of the State total) were in the Newark PMSA.

Statewide, the proportion of HIV/AIDS cases involving injection drug use has declined substantially. Thus, approximately 41 percent of cumulative HIV/AIDS cases statewide historically involved injection drug use alone, compared with 14 percent between January and December 2005. In Newark City, 49 percent of cumulative cases involved injection drug use alone (only cumulative transmission mode data are available for Newark). This percentage has remained relatively constant.

The proportion of cases linked to heterosexual transmission in New Jersey has increased dramatically. Approximately 28 percent of cumulative cases and 45 percent of cases reported between January and December 2005 can be attributed to heterosexual transmission. The majority of this difference can be found in the “partners of unknown HIV risk” category. There has been a slight increase in the number of transmission cases involving men having sex with men (MSM), but this trend is stabilizing. The cumulative rate is 20 percent, while the rate of transmission between January and December 2005 is 23 percent. Additionally, 16 percent of cases reported between January and December 2005 are still recorded in the “other or unknown” transmission mode category.

In Newark City, 10 percent of cumulative HIV/AIDS cases involved MSM transmission, 20 percent involved heterosexual contact, and 19 percent involved

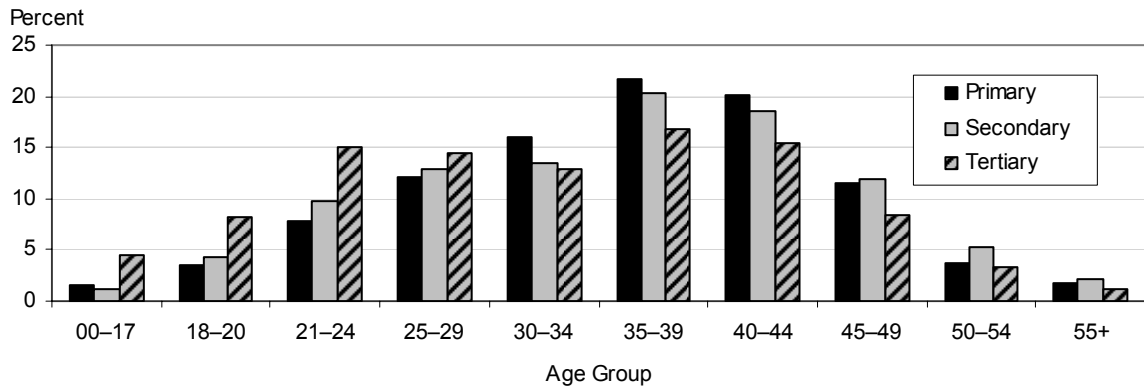
“other or unknown” transmission. A larger proportion of females (34 percent of cumulative cases in Newark and 52 percent in the State) were infected through heterosexual contact than males (11 percent and 19 percent in Newark and the State, respectively).

There has been a steady increase in the number of persons living with HIV/AIDS in Newark and in the State as a whole. The total number statewide has increased from 25,343 in 1997 to 32,885 as of December 31, 2005 (exhibit 13). Among people living with HIV/AIDS as of December 31, 2005, about 36 percent statewide and 41 percent in Newark City are female (exhibit 14). Compared with the State as a whole, a substantially higher proportion of people living with HIV/AIDS in Newark are non-Hispanic Black (79 vs. 56 percent) (exhibits 13 and 15). About 17 percent among those living with HIV/AIDS in Newark and 21 percent statewide are Hispanic, and about 3 percent in Newark and 22 percent statewide are non-Hispanic White.

With respect to transmission mode among people living with HIV/AIDS, injection drug use alone accounted for 29 percent of cases statewide and 37 percent in Newark. Heterosexual contact accounted for 38 percent of cases statewide and 25 percent in Newark. MSM contact alone accounted for 19 percent statewide and 10 percent in Newark, while MSM contact and injection drug use combined were involved in 3 percent of cases statewide and 3 percent of cases in Newark. The continued increase in heroin injection by the young (age 18–25) and the very high levels of heroin abuse and heroin-related deaths continue to pose a serious risk for an increase in the prevalence of infectious diseases. However, no data are yet available to document any rise in the prevalence of HIV/AIDS in New Jersey.

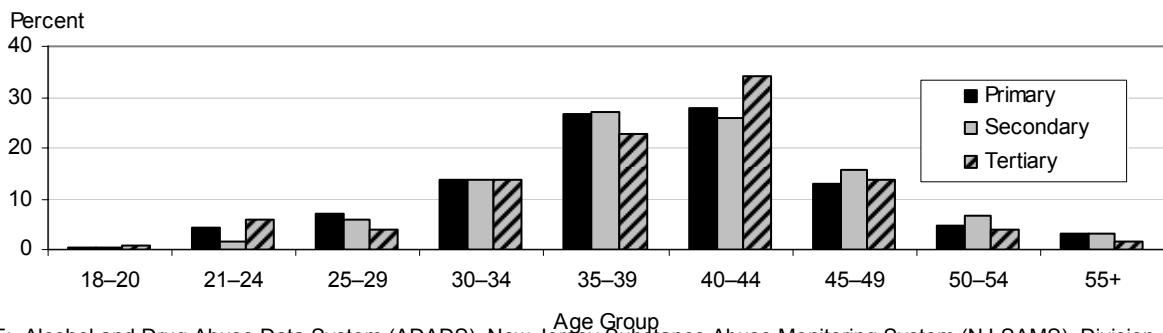
*For inquiries concerning this report, please contact Allison S. Gertel-Rosenberg, M.S., Program Manager, Division of Addiction Services, Office of Policy Development, New Jersey Department of Human Services, 120 South Stockton Street, 3rd Floor, P.O. Box 362, Trenton, NJ 08625, Phone: 609-984-4050, Fax: 609-292-1045, E-mail: allison.gertel@dhs.state.nj.us.*

**Exhibit 1. New Jersey Cocaine Admissions, by Age and Percent: 2005**



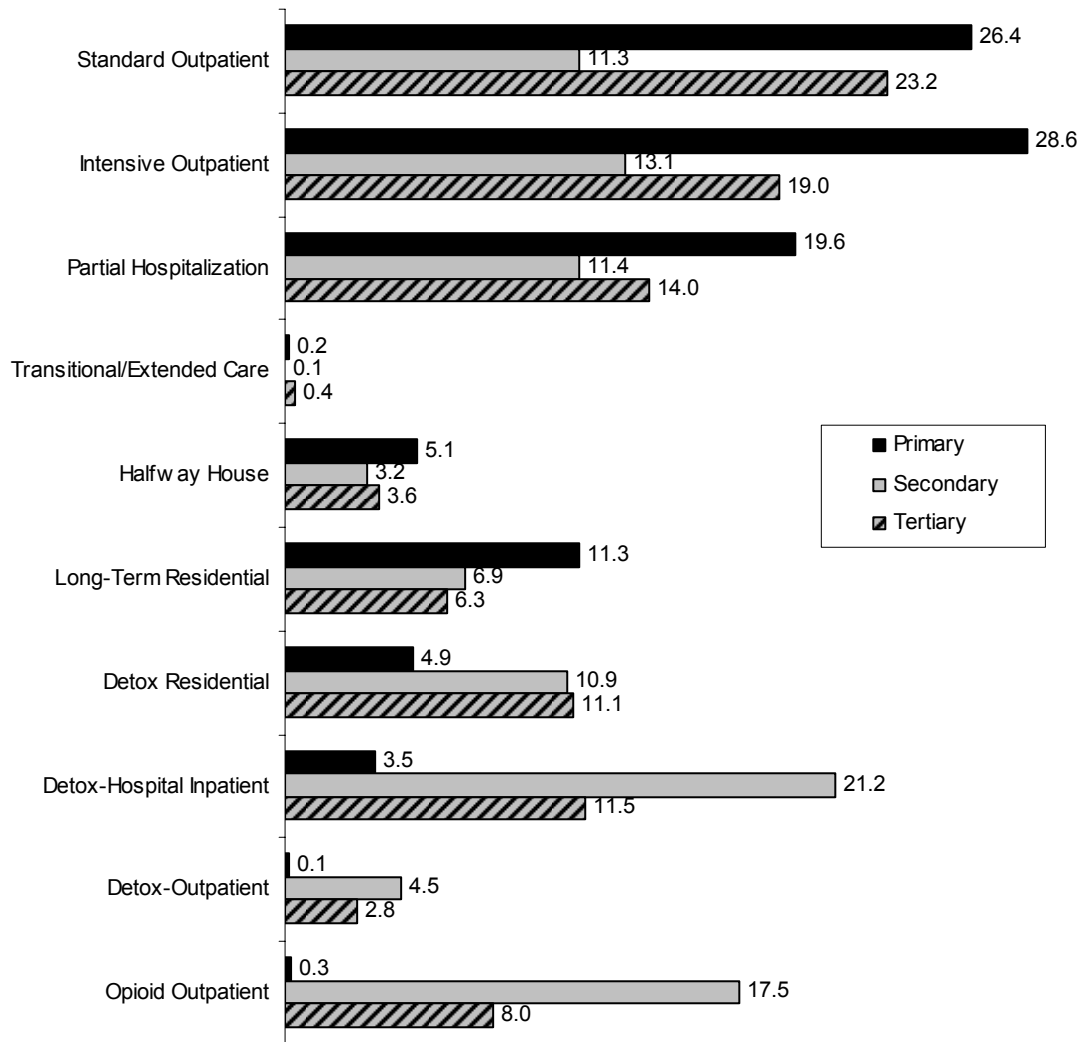
SOURCE: Alcohol and Drug Abuse Data System (ADADS), New Jersey Substance Abuse Monitoring System (NJ-SAMS), Division of Addiction Services, New Jersey Department of Human Services

**Exhibit 2. Newark City Cocaine Admissions, by Age and Percent: 2005**



SOURCE: Alcohol and Drug Abuse Data System (ADADS), New Jersey Substance Abuse Monitoring System (NJ-SAMS), Division of Addiction Services, New Jersey Department of Human Services

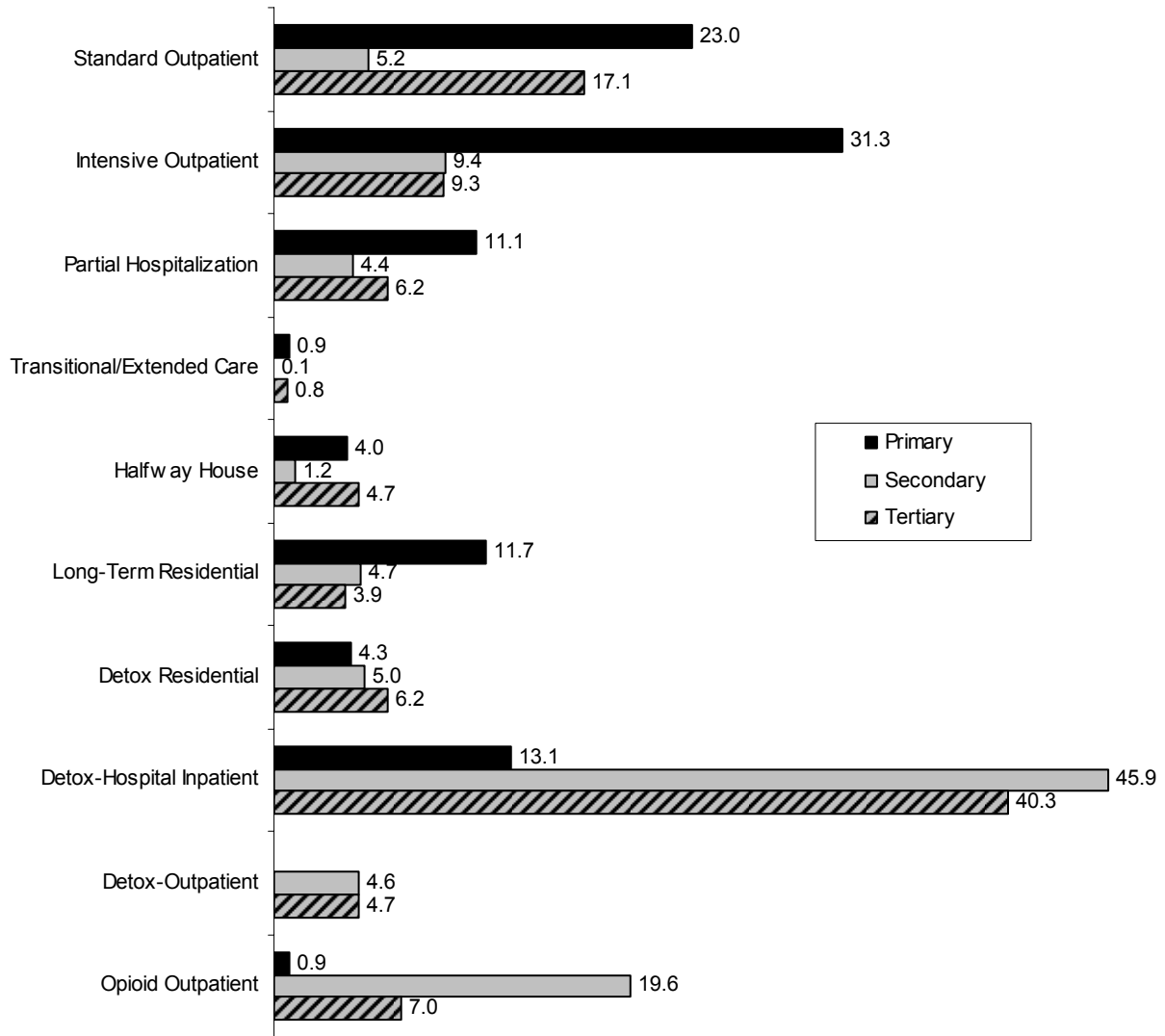
**Exhibit 3. New Jersey Cocaine Admissions, by Modality and Percent: 2005**



SOURCE: Alcohol and Drug Abuse Data System (ADADS), New Jersey Substance Abuse Monitoring System (NJ-SAMS), Division of Addiction Services, New Jersey Department of Human Services

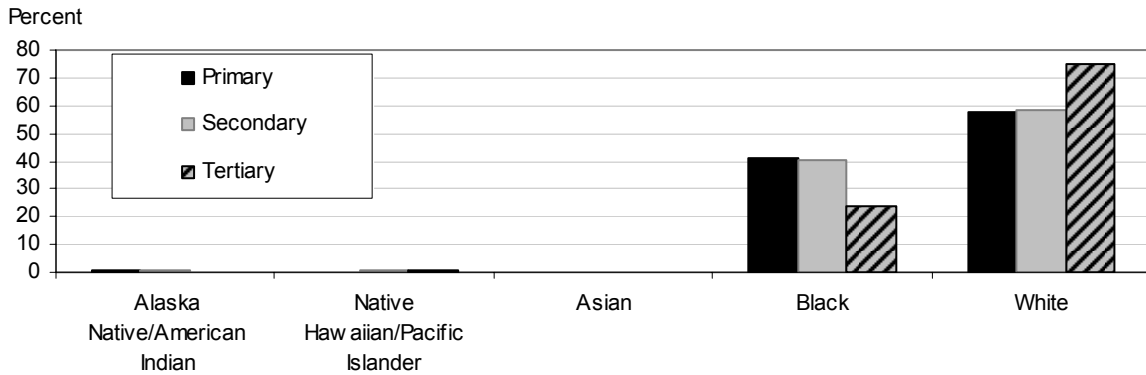


**Exhibit 4. Newark City Cocaine Admissions, by Modality and Percent: 2005**



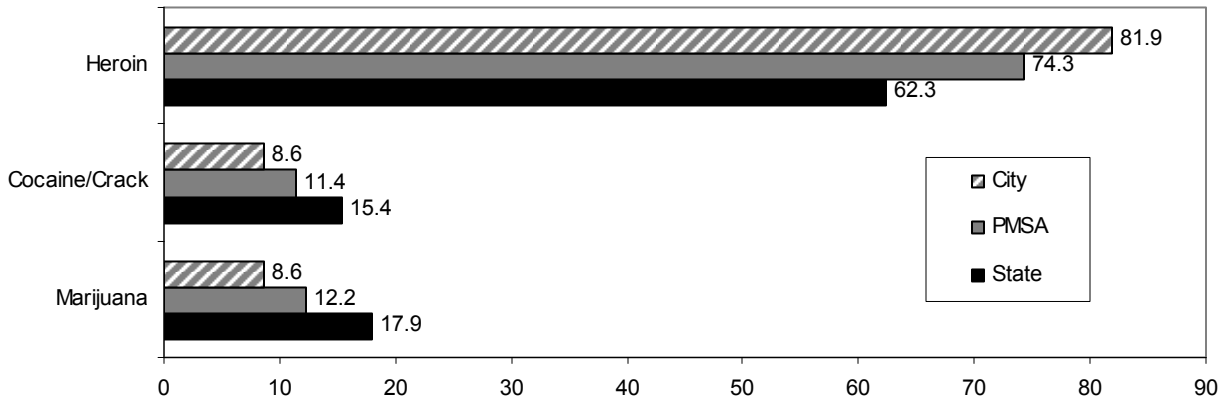
SOURCE: Alcohol and Drug Abuse Data System (ADADS), New Jersey Substance Abuse Monitoring System (NJ-SAMS), Division of Addiction Services, New Jersey Department of Human Services

**Exhibit 5. New Jersey Cocaine Admissions, by Race and Percent: 2005**



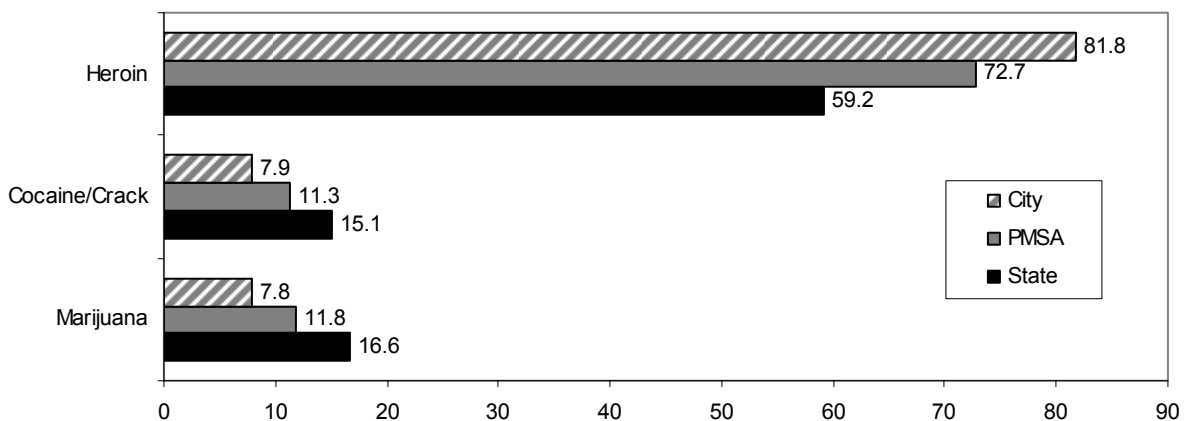
SOURCE: Alcohol and Drug Abuse Data System (ADADS), New Jersey Substance Abuse Monitoring System (NJ-SAMS), Division of Addiction Services, New Jersey Department of Human Services

**Exhibit 6. Percentages of Primary Treatment Admissions (Excluding Alcohol) for Selected Drugs in Newark City, the Newark PMSA, and New Jersey: 2005**



SOURCE: Alcohol and Drug Abuse Data System (ADADS), New Jersey Substance Abuse Monitoring System (NJ-SAMS), Division of Addiction Services, New Jersey Department of Human Services

**Exhibit 7. Percentages of Primary Treatment Admissions (Excluding Alcohol) for Selected Drugs in Newark City, the Newark PMSA, and New Jersey: 2004**



SOURCE: Alcohol and Drug Abuse Data System (ADADS), New Jersey Substance Abuse Monitoring System (NJ-SAMS), Division of Addiction Services, New Jersey Department of Human Services

**Exhibit 8. Demographics of Primary Substance Abuse Treatment Admissions in the State, by Percent: 2005<sup>1</sup>**

Characteristic	Alcohol Only	Alcohol-in-Combination	Crack	Cocaine	Marijuana	Heroin	Other Opiates
Gender							
Male	72.6	73.3	56.4	69.8	79.7	65.7	61.5
Female	27.3	26.7	43.5	30.2	20.3	34.3	38.5
Race/Ethnicity							
White	85.0	74.2	48.9	72.1	55.9	63.2	94.4
Black	13.2	24.7	50.0	26.3	41.6	35.1	5.0
Hispanic	12.8	11.0	10.9	18.7	19.4	17.0	6.2
Age at Admission							
Under 18	0.9	4.3	0.4	3.3	29.2	0.3	0.9
18–25	9.8	20.5	10.0	19.5	41.4	19.7	27.8
26–35	18.0	23.2	28.9	33.1	20.2	28.5	28.6
36 and older	71.4	52.0	60.7	44.1	9.2	51.5	42.7

<sup>1</sup>Percentages may not add to 100 due to rounding or missing values.  
SOURCE: TEDS, OAS, SAMHSA, accessed 6/01/06

**Exhibit 9. Number of Drug Mentions in Drug-Related Deaths Reported by the New Jersey Medical Examiner in Essex County: 2005<sup>1</sup>**

Substance	Mentions
Amphetamines & Methamphetamine	1
Cannabinoids	6
Cocaine & Metabolites	135
Ethanol	45
Opiates	118

<sup>1</sup>Includes drug-related fatalities.  
SOURCE: Office of the Medical Examiner

**Exhibit 10. Number of Items Analyzed for Specific Drugs in Newark and Percentage of Total Items: January–December 2005<sup>1</sup>**

Substance	Count	Percent (%)
Cocaine	1,663	50.2
Heroin	1,080	32.6
Marijuana	286	8.6
Procaine	189	5.7
Alprazolam	15	0.5

<sup>1</sup>N = 3,312.  
SOURCE: NFLIS, DEA

**Exhibit 11. Perceived Drug Availability and Greatest Threat in the Northeast, by Percent: 2005**

Substance	Percent Perceiving High Availability	Percent Perceiving Greatest Threat
Cocaine	58.2	38.5
Heroin	37.7	28.5
Marijuana	88.3	23.0
Methamphetamine	6.4	2.9
MDMA	15.1	1.3

SOURCE: National Drug Threat Assessment 2005, NDIC

**Exhibit 12. Illicit Drug Prices for Northern New Jersey: July–September 2005**

Drug	Price in US \$
Heroin	
Kilogram	\$50,000–\$60,000
Ounce	\$1,500–\$3,360
Gram	\$23–\$100
Brick (50 bags)	\$220–\$330
Bundle (10 bags)	\$80–\$100
Bag	\$8–\$10
Cocaine	
Kilogram	\$17,000–\$30,000
Ounce	\$650–\$850
1/8 Ounce	\$100–\$600
Gram	\$30–\$100
Bag	\$5–\$40
Crack	
Kilogram	\$20,000–\$28,000
Ounce	\$650–\$850
1/8 Ounce	\$150–\$600
Gram	\$30–\$80
Clip (10 Vials)	\$250
Bag/Vial	\$5–\$40
Methamphetamine	
Pound	\$8,000–\$18,000
Pound (Crystal/"ice")	\$12,000–\$17,000
Ounce (Crystal/"ice")	\$2,800–\$6,700
1/8 Ounce	\$200
Gram ("ice")	\$100–\$160
Gram (Local cook)	\$100
Marijuana	
Pound (Commercial)	\$1,000–\$4,000 / Sour Diesel \$8,000
½ Pound (Commercial)	\$300–\$1,500
Pound (Hydro)	\$2,000–\$6,000
½ Pound (Hydro)	\$500–\$2,500
Ounce	\$45–\$100 / White Willow \$425–\$450
Gram	\$10–\$50
Bag	\$5–\$10 / Hydro \$15–\$30
Joint	\$2–\$20
Pharmaceuticals/Other Drugs	
Ketamine	\$20/bump
PCP	\$15–\$25/bag
MDMA	\$4–\$25/tablet
OxyContin	\$20–\$45
Percocet	\$3–\$6/tablet
Xanax	\$7/tablet
GHB	\$800–\$1200/gallon

SOURCE: DEA Newark Field Division, HIDTA, NJ Prosecutor's Offices Narcotics Task Forces/other LEA

**Exhibit 13. Numbers and Percentages of Adult/Adolescent Cases Living with HIV/AIDS in New Jersey by Exposure Category, Race/Ethnicity, and Gender as of December 31, 2005**

Adult/Adolescent Cases Living with HIV/AIDS	Males		Females		Total	
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)
Exposure Category						
Men/sex/men (MSM)	6,263	30	0	0	6,263	19
Injection drug user (IDU)	6,190	29	3,414	29	9,604	29
IDU/MSM	843	4	0	0	843	3
Heterosexual contact	5,499	26	7,063	60	12,562	38
Other/unknown	2,359	11	1,254	11	3,613	11
<b>Total</b>	<b>21,154</b>	<b>100</b>	<b>11,731</b>	<b>100</b>	<b>32,885</b>	<b>100</b>
Race/Ethnicity						
White	5,227	25	1,933	16	7,160	22
Black	10,778	51	7,504	64	18,282	56
Hispanic	4,776	23	2,112	18	6,888	21
Asian/Pacific Islander	168	1	69	1	237	1
Other/unknown	205	1	113	1	318	1
<b>Total</b>	<b>21,154</b>	<b>100</b>	<b>11,731</b>	<b>100</b>	<b>32,885</b>	<b>100</b>

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

**Exhibit 14. Adult/Adolescent Cases Living with HIV/AIDS in Newark City, by Exposure Category and Gender as of June 30, 2005**

Exposure Category	Males		Females		Total	
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)
Men/sex/men (MSM)	585	17	0	0	585	10
Injection drug user (IDU)	1,293	38	859	36	2,152	37
IDU/MSM	160	5	0	0	160	3
Heterosexual Contact	512	15	918	38	1,430	25
Other/Unknown	865	25	617	26	1,482	26
<b>Total</b>	<b>3,415</b>	<b>100</b>	<b>2,394</b>	<b>100</b>	<b>5,809</b>	<b>100</b>

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

**Exhibit 15. Race/Ethnicity of Cases Living with HIV/AIDS in Newark City, as of June 30, 2005**

Race/Ethnicity	Adult/Adolescent		Pediatric		Total	
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)
White, Non-Hispanic	202	3	0	0	202	3
Black, Non-Hispanic	4,640	79	74	89	4,714	79
Hispanic	998	17	9	11	1,007	17
Other	52	1	0	0	52	1
<b>Total</b>	<b>5,892</b>	<b>100</b>	<b>83</b>	<b>100</b>	<b>5,975</b>	<b>100</b>

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

# Drug Use Trends in New York City

Rozanne Marel, Ph.D., John Galea, M.A.,  
Robinson B. Smith, M.A., and Gregory  
Rainone, Ph.D.<sup>1</sup>

## ABSTRACT

***Drug use trends in New York City were again mixed for this reporting period. Cocaine indicators continue to be stable, and cocaine remains a major problem in New York City. While primary cocaine admissions constitute one-quarter of New York City's drug and alcohol treatment admissions, more than 50 percent of clients in treatment report cocaine as a primary, secondary, or tertiary drug. Heroin indicators were mixed for this reporting period. Heroin remains widely available, although purity has decreased and price has increased. Marijuana indicators, which had been reaching new peaks, seem to have stabilized. Marijuana continues to be of good quality and available in a wide variety of flavors and colors. Many users mix and combine drugs for simultaneous use, and marijuana in a blunt cigar often serves as the base to which other drugs are added. Although the numbers remain small, methamphetamine indicators are showing an increase in the gay community of New York City. Street sources report that the methamphetamine in New York City is low in quality and high in price. Many kinds of prescription drugs continue to be popular and available on the street, based on street studies and indicator data. Of the 95,707 New Yorkers living with HIV or AIDS, men having sex with men and injection drug use history continue to be the two major transmission risk factors.***

## INTRODUCTION

### Area Description

New York City, with 8 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 320 square miles. It has nearly 600 miles of waterfront and one of the world's largest harbors.

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 2000 census show that the population diversity continues: 35 percent are White; 27 percent are Black; 27 percent are Hispanic of any race; and 10 percent are Asian and Pacific Islander. The five largest Asian groups in the city are Chinese, Asian Indian, Korean, Filipino, and Pakistani, and the five largest groups of Hispanic origin are Dominican, Mexican, Puerto Rican, Colombian, and Ecuadorian. Moreover, New York City includes people who identify with races/ethnicities from all over the world. Nearly 3 million New York City residents are foreign born (2,871,032), which represents 36 percent of the resident population, and about 1.2 million legal immigrants became New York City residents between 1990 and 2000. The Dominican Republic remains the city's largest source of immigrants.

The highest percentage of foreign-born New Yorkers resides in Queens (46 percent). It is estimated, for example, that in Queens alone more than 120 languages are spoken. Brooklyn has the next highest percentage of foreign-born (38 percent), followed by Manhattan (29 percent), the Bronx (29 percent), and Staten Island (16 percent). According to the New York City Department of Health and Mental Hygiene, foreign-born New Yorkers are less likely than those born in the United State to have insurance and primary care providers and thus face barriers to accessing health care and treatment.

The city remains the economic hub of the Northeast. Its main industries include services and wholesale and retail trade. Of the more than 3.7 million people employed in the city, 22 percent commute from surrounding areas. Overall, the unemployment rate in New York City for April 2006 was 5.4 percent, compared with 4.9 percent in New York State and 4.7 percent in the Nation.

Census 2000 data showed that the median household income for New York City residents was \$38,323, compared with \$43,393 for State residents and \$41,994 for U.S. residents as a whole. The percentages of persons living below the poverty level for New York City and the State as a whole were 21.2 percent and 14.6 percent, respectively. The comparable figure for U.S. residents as a whole in 2000 was 12.4 percent.

<sup>1</sup>The authors are affiliated with the New York State Office of Alcoholism and Substance Abuse Services, New York, New York.

## Data Sources

This report describes current drug abuse trends in New York City from 1995 to 2005, using the data sources summarized below:

- **Emergency department (ED) data** were derived for calendar year 2005 from the Drug Abuse Warning Network (DAWN) *Live!* restricted-access online query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Eligible hospitals in the New York 5 Boroughs Division totaled 52; hospitals in the DAWN sample numbered 42, with the number of emergency departments in the sample totaling 64. (Some hospitals have more than one emergency department.) During this 12-month period, between 31 and 35 EDs reported data each month. The completeness of data reported by participating EDs varied by month (see exhibit 1). Exhibits in this paper reflect cases that were received by DAWN as of April 17–18, 2006. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, the data presented in this paper are subject to change. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. Drug reports exceed the number of ED visits, since a patient may report use of multiple drugs (up to six drugs and alcohol). The DAWN *Live!* data are unweighted and, thus, are not estimates for the reporting area. These data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found at <<http://dawninfo.samhsa.gov>>. ED drug mentions data before 2003 were derived from e DAWN, OAS, SAMHSA, for 1995 through 2002; these weighted data are based on a representative sample of hospitals in New York City and Westchester, Rockland, and Putnam Counties.
- **Treatment admissions data** were provided by the New York State Office of Alcoholism and Substance Abuse Services (OASAS) for 1995 through 2005 and include both State-funded and nonfunded admissions. Demographic data are for 2005. During the second quarter of 2005, the statewide reporting system for treatment admissions data was changed, and, therefore, the numbers for that period may represent an undercount of the actual treatment admissions.

- **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 through December 2005.
- **Drug price, purity, and trafficking data** were provided by the DEA's Domestic Monitor Program (DMP) for heroin. These data are supplemented by information from the OASAS Street Studies Unit (SSU) reports and *National Illicit Drug Prices—December 2005*, a National Drug Intelligence Center (NDIC) Intelligence Bulletin.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the New York City Department of Health and Mental Hygiene, HIV Epidemiology Program for 1981–2005.
- **Hepatitis C data** were provided by the New York City Department of Health and Mental Hygiene, Bureau of Communicable Diseases, for 2003–2004.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

In general, many cocaine indicators, which had been declining, are relatively stable, and the drug still accounts for major problems in New York City (exhibit 2).

While primary cocaine treatment admissions to State-funded and nonfunded programs in New York City declined from 17,572 in 1998 to 14,059 in 2000, they increased to 16,711 in 2004 and totaled 15,340 in 2005. It should be noted that even when the cocaine treatment admissions were in decline, they did not show the same type of dramatic long-term decline that was seen in the other indicators. In 2005, cocaine admissions constituted 24 percent of all of New York City's 64,238 drug and alcohol treatment admissions (excluding alcohol-only). In addition to these primary cocaine admissions, there were 17,971 admissions who reported cocaine as a secondary substance and 3,398 who reported cocaine as a tertiary substance. Thus, among the 64,238 drug treatment admissions in 2005, 36,709 (more than 57 percent) mentioned cocaine as a primary, secondary, or tertiary substance of abuse.

Exhibit 3 shows demographic characteristics of cocaine treatment admissions for 2005 by the two primary modes of use: smoking crack (representing 62 percent of cocaine admissions) and using cocaine intranasally (representing 35 percent). Those who smoke crack are more likely than intranasal users to be female (36 vs. 25

percent), Black (70 vs. 42 percent), and without income (37 vs. 27 percent). Those using intranasally are more likely to be Hispanic or White and to have some criminal justice status. The two groups are similar in secondary drugs of abuse, primarily alcohol and marijuana. It should be noted that all admissions for primary cocaine abuse represent an aging population, and those smoking crack tend to be older than those using cocaine intranasally.

For the five boroughs of New York City, there were 14,119 unweighted DAWN *Live!* reports for cocaine in January–December 2005.

Another data source, the DEA's National Forensic Laboratory Information System, showed that of the 45,896 drug items analyzed and reported for New York City from January through December 2005, 24,822 (54 percent) were cocaine.

The NDIC reports that prices for cocaine powder in December 2005 were \$16,000–\$32,000 per kilogram and \$600–\$1,200 per ounce. The NDIC reports that crack sells for \$18,000–\$30,000 per kilogram, \$1,000–\$1,500 per ounce, \$23–\$35 per gram, and \$7–\$20 per rock. These prices are higher than those reported for the last half of 2004.

According to the Street Studies Unit, cocaine hydrochloride (HCl) buying and use continues at a stable pace. Cocaine continues to be sold primarily behind closed doors (e.g., apartments or bodegas). Cocaine prices can fluctuate, as sellers vary the purity of the product and offer several different size packages.

Crack users report that crack cocaine continues to be highly available and in demand. Field researchers report that street-level crack in New York City continues to be sold in a variety of sizes and amounts. For example, in some parts of Manhattan, crack is available in \$3 vials, \$5 “ziplock” bags (smaller than a dime), \$10 bags, and \$20 bags (just big enough to hold a dime). Although a number of package sizes may be available in a given area, most sellers carry only one size. As the weather gets warmer, the \$5 package becomes more popular. In some locations, crack is sold as loose rocks. The seller breaks off a piece (or rock) and hands it to the buyer. The Street Studies Unit also reports several references to injecting crack. Supposedly, it is prepared with vinegar or water and lemon juice or lemon powder.

## Heroin

Heroin continues to be a major drug problem in New York City. For example, one-third of New York City's primary treatment admissions in 2005 were for heroin.

Over the last several years, there has been a marked change in the price and purity of heroin, with a substantial decrease in purity and increase in price.

Primary heroin admissions to treatment programs in New York City gradually increased between 1995 and 2004, from 18,287 to 23,802, a 30-percent increase (exhibit 4). In 2005, primary heroin admissions numbered 21,398 and constituted 33 percent of New York City's 64,238 drug treatment admissions. In addition to the primary heroin admissions, 2,254 clients reported heroin as a secondary substance of abuse, and 1,088 reported it as a tertiary drug. Thus, most treatment admissions with heroin as a substance of abuse report it as the primary drug of abuse. This contrasts with cocaine; almost 60 percent of those reporting cocaine consider it a secondary or tertiary drug of abuse.

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 declined slightly and ranged from 59 to 61 percent. In 2005, the proportion using intranasally was 60 percent. Meanwhile, heroin injection increased among heroin admissions, from 32 percent in the second half of 1998 to 38 percent in 2005.

Exhibit 5 highlights general demographic characteristics of heroin abusers admitted to all New York City treatment programs in 2005 by mode of use. In general, primary heroin admissions were overwhelmingly male (76 percent), older than 35 (73 percent), more likely to be Hispanic (52 percent) than Black (27 percent) or White (19 percent), and likely to report cocaine as a secondary drug of abuse (43 percent). Compared with heroin injectors, intranasal users were more likely to be Black (33 vs. 17 percent) and to have some criminal justice status (33 vs. 23 percent). In contrast, primary heroin injectors were more likely than intranasal users to be White (29 vs. 11 percent), to report cocaine as a secondary drug of abuse (50 vs. 38 percent), and to have started use before reaching age 20 (57 vs. 43 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 medically supervised. In 1995, 4,503 such admissions were reported for heroin abuse. By 2004, that figure increased to 15,964; in 2005 the figure was 15,063.



For the five boroughs of New York City, there were 8,607 preliminary unweighted DAWN *Live!* heroin ED reports for January through December 2005.

NFLIS data show that 12 percent of the 45,896 cases for New York City in 2005 ( $n=5,440$ ) were related to heroin.

From 1992 to 2000, the DMP found average heroin purities to be generally above 60 percent. Findings for 2004, however, show an average purity for South American heroin of 43.3 percent, down from 61.5 percent in 2002, a decrease of 30.0 percent. The associated price is \$0.62 per milligram pure, an increase of 79 percent from \$0.36 per milligram pure in 2002. According to the DEA, kilogram prices in December 2005 were \$40,000–\$80,000 for South American heroin and \$40,000–\$45,000 for Southwest Asian heroin. The price for Southeast Asian heroin was \$40,000–\$70,000 per 700 grams.

According to the SSU field staff, heroin in New York City continues to be highly available, and the demand for heroin continues to be high. Many heroin users continue to complain, however, that the heroin currently available is weak because of the extensive use of adulterants. They also report that pharmaceuticals, particularly tranquilizers, pain medication, and sedatives, are being used to boost the heroin. According to some street informants, OxyContin is the pain medication most in demand by heroin dealers for the purpose of adulterating and boosting heroin.

### **Other Opiates/Narcotics**

According to preliminary unweighted DAWN *Live!* data for the five boroughs of New York City for January through December 2005, there were 3,971 ED reports of opiates/opioids. Of these reports for opiates/opioids, 26 percent were for detoxification.

Among ME deaths for the New York metropolitan area reported by DAWN, the category of opiates/opioids, which includes all legal and illegal narcotic analgesics and combinations, accounted for more drug misuse deaths than any other category. For specific narcotic-type drugs in DAWN ME reports, methadone accounted for 250 deaths in the New York metropolitan area in 2003, while all other opiates, excluding heroin, accounted for 532 deaths.

According to the SSU, OxyContin sold on the street for \$2.50 for a 10-milligram tablet, \$5 for a 20-milligram tablet, and \$20 for an 80-milligram tablet. SSU staff also report that OxyContin continues to be used to cut heroin or to boost methadone. Users familiar with

OxyContin as a heroin adulterant report that the drug produces a “pins & needles” sensation.

In a recent SSU study of medication diversion, many respondents indicated that they obtain their diverted medication directly off the street from pill sellers. Others indicated that they obtain these medications through “scrip” doctors. Respondents reported that on average they used one or more pills a day; many bought their medication about three times a week; and they had used the same diverted medication for at least a year. Many also reported having obtained at least one prescription for the medication. These individuals were asked why they needed to use alternative sources for the medication. The most common responses were, the “doctor refused to continue to prescribe the medication” or the patient’s “misuse of the medication became apparent.” Hence, it became necessary for them to find alternative sources. Of the respondents who reported never having obtained a prescription for the diverted medication, some indicated that the doctor refused from the start to provide a prescription. It is likely that these patients were unable to demonstrate a genuine medical need. The remainder of the respondents indicated that obtaining medical service was too time consuming or that obtaining medication through a pharmacy was too expensive. As a result, these individuals chose to obtain their medication through alternative street sources. The primary source of pain medication on the street is the patient who sells his prescribed medication. While a substantial number of respondents reported that they sold at least some of their pain medication in the last 30 days, very few reported having sold all or most of their pain medication. This suggests that users are somewhat reluctant to sell their pain medication. Many respondents indicated that they used the pain medication because they wanted to get high.

### **Methamphetamine/Amphetamines**

Although methamphetamine is popular in other parts of the Nation, there were relatively few arrests, ED reports, deaths, or treatment admissions related to the drug in New York City.

In New York City, there were 172 DAWN ED reports for stimulants in 2005, according to preliminary unweighted data, including 133 for methamphetamine and 39 for amphetamines.

NFLIS data show that less than 1 percent of the 45,896 cases for New York City in 2005 were related to methamphetamines.

According to the SSU, the general demand for crystal methamphetamine in New York City remains low, and

there is little availability or selling activity. The use of “crystal meth” is still primarily limited to the gay/male community. Some informants indicate that methamphetamine can be found, but the quality is poor and the price is high. One individual described the “crystal meth” currently available in New York City as follows: “. . . It’s bathtub crank; it’s all garbage.” The poor quality of some of the crystal methamphetamine may be due to “on-the-run” local manufacturing. There have been reports that small batches of crystal methamphetamine are being “cooked-up” in low-price hotels in New York City, where the individuals preparing the drug are usually gone before anyone responds to the offensive odors.

Despite the fact that the general demand and use of methamphetamine in New York City remains low, a community availability study conducted by the SSU in 2005 and 2006 found that the overall number of respondents who indicated that crystal methamphetamine was “locally available” nearly doubled between 2005 and 2006. The study also found that methamphetamine selling seems to be limited to the high drug traffic areas of Manhattan and the Bronx, but use was more evenly distributed throughout the city.

## **Marijuana**

In New York City, marijuana indicators, which have recently increased steadily and dramatically, appear to be stabilizing (exhibit 6).

Primary marijuana admissions to all treatment programs had been increasing steadily over the past several years. The number increased more than ninefold between 1991 and 2002, from 1,374 to 14,310, the highest annual number (exhibit 5). That total fell to 13,303 in 2004, and, in 2005, the number of primary admissions was 13,258. In 1991, primary marijuana admissions represented less than 5 percent of all treatment admissions; by 2005, these admissions represented 21 percent of admissions (excluding alcohol-only) to all New York City treatment programs.

Exhibit 7 shows demographic characteristics of primary marijuana admissions to all New York City treatment programs in 2005. The vast majority were male (79 percent), and 26 percent were younger than 21. More than one-half (58 percent) were Black, about one-third (30 percent) were Hispanic, and 8 percent were White. Alcohol was the secondary drug of abuse for 36 percent of the marijuana admissions, and 64 percent had some criminal justice status.

In New York City, there were 4,756 preliminary unweighted DAWN *Live!* ED reports for marijuana in 2005.

According to NFLIS data, 27 percent of the drug items analyzed for New York City in 2005 ( $n=12,320$ ) contained cannabis.

According to the DEA, marijuana prices can range from \$1,000 to \$2,000 per pound wholesale for commercial grade and from \$1,800 to \$7,500 per pound for hydroponic marijuana.

According to the SSU, marijuana continues to be exceedingly available and in high demand. This may be due, in part, to the fact that of the four major street drugs, marijuana is the drug most often used in a group situation and most often shared, especially by users younger than 30. In addition, marijuana is usually the basic ingredient in most multidrug use episodes. There is currently a tendency by drug users, regardless of primary drug, to mix and combine multiple drugs for simultaneous use, and marijuana in a blunt cigar serves as the base to which other drugs are added.

The quality of marijuana varies greatly by seller and location. “Haze” marijuana comes in a variety of colors and flavors, such as banana or chocolate, and continues to be perceived as very good quality. In many locations, the sellers are marketing a pre-mixed combination of two or three types of marijuana. Usually street sales involve thumb-nail size plastic zip-lock bags that sell for either \$10 or \$20.

The majority of the marijuana street sellers are young males between ages 15 and 25. In most inner-city selling locations, it is rare to find a marijuana seller operating by himself. Although there is safety in numbers, the selling process appears to be as much a social endeavor as an economic activity. According to the SSU, many of these inner city youths lack training or have poor scholastic preparation and are unable to secure legitimate employment beyond the minimum wage. In addition, by the time these individuals have reached a point when they want to “get serious” and secure legitimate employment, they either have a drug-related arrest record or will test positive for one or more illicit substances. Since September 11, 2001, most employers typically conduct background checks and drug testing for prospective employees. For many of these individuals, selling marijuana is perceived as their only opportunity for gainful employment.

## **Club Drugs**

Club drugs are a collection of various synthetic chemical compounds that are often abused by young people in festive social settings, such as dance clubs, after-hour clubs, and other special events. Club drugs include methylenedioxymethamphetamine (MDMA), gamma hydroxybutyrate (GHB), and ketamine. All-

night parties are about endurance and sensory overstimulation, and, not surprisingly, many of the club drugs have stimulant or hallucinogenic properties.

According to preliminary unweighted DAWN *Live!* ED data for New York City, there were 163 reports for MDMA in 2005. During this period, there were 27 unweighted ED reports for ketamine and 28 for GHB.

According to the SSU, street sources report that MDMA, a stimulant with hallucinogenic properties, is easy to obtain in many areas of the city. MDMA is available in tablet, capsule, and powdered form. According to the DEA for December 2005, a dose sells for about \$6–\$8 per tablet wholesale and usually is \$5–\$38 per tablet retail.

Available as a club drug in New York City, the veterinary anesthetic ketamine produces hallucinogenic effects similar to PCP and visual effects similar to lysergic acid diethylamide (LSD). On the street, the drug is called “Special K,” “K,” “Vitamin K,” and “Cat Valium,” and sells for approximately \$25–\$50 per dosage unit. It comes in liquid, powdered, or tablet form, and it may be administered intranasally or injected. While ketamine is not currently a controlled substance under Federal law, it is listed as a controlled substance in New York State. It is available in club settings and has not been reported on the “street.”

Although not generally available on the street, GHB and the analogs (GBL, BD, GHV, GVL) can be easily obtained in many dance clubs. It is also known as liquid MDMA, “grievous bodily harm,” or “Georgia Homeboy.” It is usually available in liquid form, and in a club GHB may cost \$45–\$65 for a bottlecap full. A single dose costs about \$20.

### **Phencyclidine (PCP) and Lysergic Acid Diethylamide (LSD)**

For the five boroughs of New York City, there were 490 preliminary unweighted DAWN *Live!* ED reports for PCP for January through December 2005, the most for any illicit drug other than cocaine, heroin, and marijuana.

LSD is a strong hallucinogen that has not been a major problem in New York City since the late 1960s and early 1970s. It is also known as acid, boomer, and yellow sunshine. According to preliminary unweighted DAWN *Live!* ED data for New York City, there were 40 reports for LSD in 2005.

According to DAWN ME data for the New York metropolitan area for 2003, hallucinogens (including

PCP, LSD, and other hallucinogens) accounted for 12 drug misuse deaths.

PCP (angel dust) continues to be available in some areas of the city, especially Harlem.

### **Benzodiazepines/Barbiturates**

Psychoactive prescription drugs continue to be widely available and popular. The SSU continues to report a variety of drugs readily available on the street, some for as little as \$0.50 per pill.

For New York City, there were 2,077 benzodiazepine ED reports in 2005, according to preliminary unweighted DAWN *Live!* data. Of these benzodiazepine reports, 31 percent were for patients seeking detoxification.

According to the SSU, the three most popular or commonly sold pharmaceuticals on the street in this category are alprazolam (Xanax), amitriptyline (Elavil), and clonidine (Catapres). Xanax is often obtained through a prescription paid by Medicaid and sold on the street for \$5 per 2-milligram pill. There have also been reports that 0.25-milligram pills are sold for \$0.50, 0.5-milligram pills are available for \$1.00, and 1-milligram pills sell for \$2.50. Since these drugs are manufactured by legitimate pharmaceutical companies, purity is not an issue. Most of these medications come in a variety of strengths, however, and not all strengths are found on the street. Elavil is sold for \$.50 for 50-milligrams, \$1 for 100 milligrams, and \$1.50 for 150 milligrams.

### **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 entered 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 March 31, 2005, 95,707 New Yorkers had been diagnosed with HIV or AIDS; 34,246 were living with HIV (non-AIDS), and 61,461 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) is 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. AIDS incidence in New York City peaked in 1993, with 12,649 cases. Mortality dropped sharply beginning in 1996, but New York City residents continue to die of HIV. Between 2003 and 2004, age-adjusted deaths per 1,000 persons with AIDS declined

22 percent for HIV-related causes and 16 percent for non-HIV-related causes.

Of the 95,707 PLWHA in New York City as of March 31, 2005, 64 percent were diagnosed with AIDS, and 36 percent were diagnosed with non-AIDS HIV. Sixty-nine percent were male, and 30 percent were female. In terms of race/ethnicity, 44 percent were Black, 32 percent were Hispanic, and 21 percent were White. For transmission risk factors, 28 percent (26,958) were men who have sex with men, 23 percent (22,231) had an injection drug use history, 18 percent reported a heterosexual transmission factor, 3 percent had a perinatal transmission risk factor, 1 percent had another risk factor, and 27 percent had an unknown risk factor or were under investigation.

In 2004, HIV was newly diagnosed in 845 people born in a foreign country (23 percent for all HIV diagnoses), 121 people born in a United States dependency (3 percent), and 1,459 people born in the United States (40 percent). Birth place was unknown for 1,228 people (34 percent). Among the foreign-born new HIV diagnoses, persons from the Caribbean composed the largest population (37 percent), followed by Africa (21

percent), South Africa (17 percent), and Central America (13 percent).

According to the New York City Department of Health and Mental Hygiene HIV Epidemiology Program First Quarter Report, compared with the first quarter of 2004, during the first quarter of 2005, the number of new HIV diagnoses was relatively unchanged (908 vs. 912). The number of new AIDS diagnoses decreased from 1,096 to 986. The proportion of new HIV diagnoses accounted for by men increased from 67 to 73 percent, and the proportion of new HIV diagnoses accounted for by men who have sex with men increased from 31 to 38 percent.

The New York City Department of Health and Mental Hygiene, Bureau of Communicable Diseases, also has a surveillance of hepatitis C data. As of December 2005, there were 13,814 newly reported individuals with a diagnosis date (or specimen collection date) in 2004. For 2003, that figure was 15,129.

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**Exhibit 1. DAWN ED Sample and Reporting Information: January–December 2005**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
52	42	64	24–33	1–5	0–5	29–33

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department.

SOURCE: DAWN Live!, OAS, SAMHSA, updated April 17, 2006–April 18, 2006

**Exhibit 2. Semiannual Cocaine Trends for Selected Indicator Data in New York City: 1995–2005**

Year	Semiannual/ Annual Periods	Deaths Involving Cocaine <sup>1</sup>	Cocaine ED Mentions/ Reports <sup>2</sup>	Treatment Admissions: Cocaine as Primary Drug of Abuse <sup>3</sup>	Cocaine Arrests <sup>4</sup>	Births to Women Using Cocaine <sup>5</sup>
1995	1H		9,915	8,371		
	2H		9,808	7,836		
	Total	908	19,715	16,207	40,846	1,059
1996	1H		11,070	8,561		
	2H		10,522	8,817		
	Total	659	21,592	17,378	38,813	1,005
1997	1H		10,233	9,048		
	2H		9,969	8,401		
	Total	501	20,202	17,449	35,431	864
1998	1H		9,989	8,999		
	2H		9,560	8,573		
	Total	438	19,549	17,572	35,577	742
1999	1H		7,386	8,346		
	2H		7,413	7,567		
	Total	394	14,799	15,913	31,781	626
2000	1H		6,883	7,337		
	2H		7,367	6,722		
	Total	492	14,250	14,059	31,919	490
2001	1H		7,449	7,343		
	2H	–	6,450	7,032		
	Total		13,898	14,375	23,498	438
2002	1H		6,679	7,736		
	2H		7,282	7,872		
	Total	421	13,961	15,608	13,574	363
2003	1H			8,203		
	2H	520		7,911		
	Total			16,114		354
2004	1H			8,410		
	2H			8,301		
	Total		10,134	16,711		337
2005	1H			8,096		
	2H			7,244		
	Total		14,119	15,340		

SOURCES: <sup>1</sup>DAWN, OAS, SAMHSA, including New York City, Long Island, and Putnam County through 1995; starting with 1996 the data include New York City only. In 2003, data are for the 5 boroughs of New York City plus Suffolk and Putnam Counties in New York, and Union and Morris Counties in New Jersey. Data from 2003 are not comparable to data prior to 2003

<sup>2</sup>DAWN, OAS, SAMHSA, updated 4/17–4/18, 2006. The 2005 number of reports are unweighted data and are from 64 EDs in the 5 boroughs of New York City reporting to DAWN in 2005. During this 12-month period, however, between 31 and 35 EDS reported data each month. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change. Prior to 2003, DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties. Data for 2004 and 2005 are not comparable to data prior to 2003, nor are 2004 and 2005 data comparable to each other.

<sup>3</sup>New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.

<sup>4</sup>New York City Police Department.

<sup>5</sup>New York City Department of Health and Mental Hygiene.

**Exhibit 3. Characteristics of Primary Cocaine Admissions<sup>1</sup> to State-Funded<sup>2</sup> and Nonfunded<sup>3</sup> Treatment Programs in New York City, by Route of Administration and Percent: 2005**

Demographic Characteristic	Percent Total (N=15,340)	Percent Smoking Crack (n=9,477)	Percent Using Cocaine Intrasally (n=5,327)
Gender			
Male	68	64	75
Female	32	36	25
Age at Admission			
25 and younger	7	4	12
26–35	21	19	24
36 and older	72	77	64
(Average age)	(39.7 years)	(40.5 years)	(38.4 years)
Race			
Black	59	70	42
Hispanic	25	18	36
White	14	11	19
No Source of Income <sup>4</sup>	33	37	27
Some Criminal Justice Status	37	34	42
Age of First Use			
14 and younger	7	5	8
15–19	30	27	36
20–29	43	45	40
30 and older	20	23	16
Secondary Drug of Abuse			
Alcohol	39	41	36
Marijuana	22	20	26
Heroin	6	6	5

<sup>1</sup>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.

<sup>2</sup>State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

<sup>3</sup>Nonfunded programs receive funding through sources other than OASAS, including Medicaid and private insurance reimbursements and patient fees (self-pay).

<sup>4</sup>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

**Exhibit 4. Semiannual Heroin Trends for Selected Indicator Data in New York City: 1995–2005**

Year	Semiannual/ Annual Period	Deaths Involving Heroin <sup>1</sup>	Heroin/ Morphine ED Mentions/ Reports <sup>2</sup>	Treatment Admissions: Heroin as Primary Drug of Abuse <sup>3</sup>	Heroin Arrests <sup>4</sup>	Average Purity of Street Heroin (%) <sup>5</sup>
1995	1H		5,288	9,286		
	2H		5,440	9,001		
	Total	751	10,706	18,287	38,131	(69.4)
1996	1H		5,654	9,161		
	2H		5,478	9,617		
	Total	192	11,132	18,778	37,901	(56.3)
1997	1H		4,900	10,276		
	2H		4,581	10,431		
	Total	272	9,481	20,707	35,325	(62.5)
1998	1H		4,613	10,793		
	2H		4,605	10,203		
	Total	230	9,218	20,996	37,483	(63.6)
1999	1H		4,153	10,690		
	2H		5,150	10,189		
	Total	174	9,302	20,879	32,949	(61.8)
2000	1H		5,378	10,944		
	2H		5,630	10,672		
	Total	194	11,009	21,616	33,665	(62.9)
2001	1H		5,428	11,324		
	2H	–	5,216	11,455		
	Total		10,644	22,779	27,863	(56.0)
2002	1H		4,954	11,357		
	2H		5,443	11,157		
	Total	224	10,397	22,514	34,098	(61.4)
2003	1H			11,540		
	2H	104		12,023		
	Total			23,563		(53.5)
2004	1H			12,059		
	2H			11,743		
	Total		6,374	23,802		(43.3)
2005	1H			11,064		
	2H			10,334		
	Total		8,607	21,398		

SOURCES: <sup>1</sup>DAWN, OAS, SAMHSA, including New York City, Long Island, and Putnam County through 1995 (Between 1996 and 2002, the data include New York City only. Prior to 1996, the data include heroin/morphine deaths as well as opiates not specified by type. Between 1996 and 2002, the data include only heroin/morphine deaths.) In 2003, data are for the 5 boroughs of New York City plus Suffolk and Putnam Counties in New York, and Union and Morris Counties in New Jersey. Data from 2003 are not comparable to data prior to 2003.

<sup>2</sup>DAWN, OAS, SAMHSA, updated 4/17–4/18, 2006. The 2005 number of reports are unweighted data and are from 64 EDs in the 5 boroughs of New York City reporting to DAWN in 2005. During this 12-month period, however, between 31 and 35 EDS reported data each month. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change. Prior to 2003, DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties. Data for 2004 and 2005 are not comparable to data prior to 2003, nor are 2004 and 2005 data comparable to each other.

<sup>3</sup>New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.

<sup>4</sup>New York City Police Department.

<sup>5</sup>U.S. Drug Enforcement Administration.

**Exhibit 5. Characteristics of Primary Heroin Admissions<sup>1</sup> to State-Funded<sup>2</sup> and Nonfunded<sup>3</sup> Treatment Programs in New York City, by Route of Administration and Percent: 2005**

Demographic Characteristic	Percent Total (N=21,398)	Percent Using Heroin Intranasally (n=12,766)	Percent Injecting Heroin (n=8,205)
Gender			
Male	76	77	76
Female	24	23	24
Age at Admission			
25 and younger	6	4	8
26–35	21	18	26
36 and older	73	78	66
(Average age)	(40.8 years)	(41.4 years)	(39.8 years)
Race			
Black	27	33	17
Hispanic	52	53	51
White	19	11	29
No Source of Income <sup>4</sup>	28	28	29
Some Criminal Justice Status	29	33	23
Age of First Use			
14 and younger	13	11	16
15–19	36	32	41
20–29	35	37	33
30 and older	16	20	10
Secondary Drug of Abuse			
Alcohol	12	12	12
Marijuana	8	9	6
Cocaine	43	38	50

<sup>1</sup>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.

<sup>2</sup>State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

<sup>3</sup>Nonfunded programs receive funding through sources other than OASAS, including Medicaid and private insurance reimbursements and patient fees (self-pay).

<sup>4</sup>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



**Exhibit 6. Semiannual Marijuana Trends for Selected Indicator Data in New York City: 1995–2005**

Year	Semiannual/ Annual Period	Marijuana ED Mentions/ Reports <sup>1</sup>	Treatment Admissions: Marijuana as Primary Drug of Abuse <sup>2</sup>	Cannabis Arrests <sup>3</sup>
1995	1H	1,516	2,171	12,357
	2H	1,460	2,159	
	Total	2,974	4,330	
1996	1H	1,723	2,845	18,991
	2H	1,848	3,185	
	Total	3,571	6,030	
1997	1H	1,939	3,794	27,531
	2H	1,900	3,657	
	Total	3,839	7,451	
1998	1H	1,986	4,554	42,030
	2H	1,696	4,473	
	Total	3,682	9,027	
1999	1H	1,799	5,119	43,122
	2H	1,692	5,100	
	Total	3,491	10,219	
2000	1H	1,856	5,664	60,455
	2H	1,688	5,487	
	Total	3,544	11,151	
2001	1H	1,904	6,677	47,651
	2H	1,598	6,593	
	Total	3,502	13,270	
2002	1H	1,827	7,512	47,250
	2H	2,097	6,798	
	Total	3,924	14,310	
2003	1H		6,844	
	2H		6,627	
	Total		13,471	
2004	1H		6,835	
	2H		6,468	
	Total	3,118	13,303	
2005	1H		7,061	
	2H		6,197	
	Total	4,756	13,258	

SOURCES: <sup>1</sup>DAWN, OAS, SAMHSA, updated 4/17–4/18, 2006. The 2005 number of reports are unweighted data and are from 64 EDs in the 5 boroughs of New York City reporting to DAWN in 2005. During this 12-month period, however, between 31 and 35 EDS reported data each month. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change. Prior to 2003, DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties. Data for 2004 and 2005 are not comparable to each other, nor are they comparable to data prior to 2003.

<sup>2</sup>New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.

<sup>3</sup>New York City Police Department.

**Exhibit 7. Characteristics of Primary Marijuana Admissions<sup>1</sup> to State-Funded<sup>2</sup> and Nonfunded<sup>3</sup> Treatment Programs in New York City, by Percent: 2005**

Demographic Characteristic	Percent of Total (N=13,258)
Gender	
Male	79
Female	21
Age at Admission	
20 and younger	26
21–25	25
26–35	28
36 and older	20
(Average Age)	(27.4 years)
Race	
Black	58
Hispanic	30
White	8
No Source of Income <sup>4</sup>	24
Some Criminal Justice Status	64
Age of First Use	
14 and younger	49
15–19	43
20–29	7
30 and older	1
Secondary Drug of Abuse	
Alcohol	36
Cocaine	15

<sup>1</sup>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.

<sup>2</sup>State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

<sup>3</sup>Nonfunded programs receive funding through sources other than OASAS, including Medicaid and private insurance reimbursements and patient fees (self-pay).

<sup>4</sup>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

# Drug Use in Philadelphia, Pennsylvania

Samuel J. Cutler and Marvin F. Levine,  
M.S.W.<sup>1</sup>

## ABSTRACT

*Indicators remain mostly stable for the four major drugs of abuse—cocaine, heroin, marijuana, and alcohol. However, numerous other drugs are used that contribute to the abuse patterns in this city. Cocaine abuse, particularly in the form of crack, continues to lead the 2005 consequence data with respect to deaths with the presence of drugs, treatment admissions, and laboratory tests performed by NFLIS. It was the second substance most frequently encountered in urine/drug screens performed by the Philadelphia Adult Probation and Parole Department (APPD). The street-level purity of heroin declined from 2000 (73 percent) to the spring of 2006 (38 percent), which appears to have caused users to seek or approximate a high through the use of increased amounts or adding other drugs to use in combination. In 2005, heroin ranked third among deaths with the presence of drugs, treatment admissions, and the NFLIS data and fourth in APPD urinalysis. Deaths with the presence of oxycodone ranked eighth among all positive toxicology reports in 2005. Marijuana, which is not tested for in decedents, was the most frequently detected drug by the APPD and ranked second in the NFLIS study and third in treatment admissions. Alcohol in combination with other drugs ranked second in drugs detected in decedents and treatment admissions. Alcohol ranked seventh in APPD urinalysis results. The two most frequently abused benzodiazepines continue to be alprazolam and diazepam, although others are abused/misused. Diazepam was the 4th most frequently detected drug in decedents in 2005 and ranked 10th in the NFLIS study. Benzodiazepines ranked fifth among drugs of abuse mentioned by clients in treatment, and alprazolam specifically was detected in the fourth highest number of NFLIS lab tests. Methamphetamine indicators continue to be low compared with other drugs. The drug's use is largely confined to a relatively small segment of the population. The average number of drugs detected in decedents leveled off in 2005, having increased*

*steadily from 1.97 in 1995 to 3.75 in 2004. In 2005, the average was 3.69 per decedent.*

## INTRODUCTION

### Area Description

Philadelphia, the largest city in the State, is located in the southeastern corner of Pennsylvania. The 2000 U.S. census count of 1,517,550 Philadelphia residents was updated in 2004 at 1,470,150. The population is 53.8 percent female, 47.0 percent White, 41.7 percent Black/African-American, 4.4 percent Asian, 5.0 percent other races, and 1.5 percent two or more races. Persons designated Hispanic or Latino origin (of any race) were estimated at 7.3 percent of the population. In the 2000 census, an estimated 18.4 percent of families were below the poverty level. In 2004, this estimate was 24.2 percent.

### Data Sources

This report focuses primarily on the city/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 programs in Philadelphia County were provided by the Behavioral Health Special Initiative Client Data System (BHSI/CDS) for the period January 1, 2003, through December 31, 2005. This is the second paper utilizing this data source, which replaces the source for previous reports. The authors believe the data from this source are more complete and up to date than data from the previous source.
- **Mortality data** were provided by the Philadelphia Medical Examiner's (ME) Office. These data cover mortality cases with toxicology reports indicating the detection of drugs in decedents in Philadelphia. The time period is January 1, 1994, through December 31, 2005. (The cases include persons who died from the adverse affects of one or multiple drugs, as well as persons who exhibited some substance presence but died from other causes. The Philadelphia ME also distinguishes between persons who appeared to have a lethal reaction to what

<sup>1</sup>The authors are affiliated with the City of Philadelphia, Department of Behavioral Health and Mental Retardation Services, Coordinating Office for Drug and Alcohol Abuse Programs, Philadelphia, Pennsylvania. Alan Dashoff, Lisa Mundy, Nelson E. Martin, and Rhonda Johnson provided assistance in preparing this paper.

might be considered a light or moderate amount

of drugs and persons whose toxicology reports showed a high level of drugs in their systems.) Alcohol cases are only reported in combination with one or more other drugs. The ME does not test for the presence of marijuana/tetrahydrocannabinol (THC)/cannabis.

- **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/Parole Department (APPD), for calendar year 2005.
- **Heroin purity and price data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), through the first quarter of 2006.
- **Drug analysis data** were provided by the National Forensic Laboratory Information System (NFLIS) for drug samples tested by the Philadelphia Police Department forensic laboratory in 2005.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the Philadelphia Department of Public Health's AIDS Activities Coordinating Office on AIDS cases reported from November 1, 1981, to December 31, 2005.

In addition to these sources, this report draws on focus group discussions with former drug users currently enrolled in treatment programs, as well as outreach workers assigned to homeless populations, substance abusers, and persons with human immunodeficiency virus (HIV) infection.

#### DRUG ABUSE PATTERNS AND TRENDS

The four major drugs of abuse in Philadelphia continue to be cocaine, heroin, marijuana, and alcohol. These are frequently used in combination with each other and with other supplemental drugs. In 2005, 86.8 percent of drugs mentioned by people entering treatment were one of these four drugs (exhibit 1). During this period, 78 percent of the treatment admissions were male, 53 percent were African-American, 34 percent were White, 13 percent were Hispanic, and 13 percent were classified as being of some other racial/ethnic category. The plurality age range was 21–25.

In 2005, the average number of drugs detected in decedents by the ME (3.69) exceeded the 12-year average of 2.69 drugs per case (exhibit 2). The average in 2004 was 3.75 drugs per decedent. Only 11 percent of all mortality cases with positive

toxicology reports were single-drug cases in 2005.

The number of mortality cases with positive toxicology reports in 2005 (904) was the highest on record, going back to at least 1970. There were 418 cases in the first half of 2005 and 486 cases in the latter half. Of the 904 deaths, adverse reaction to drugs accounted for 40.2 percent, followed by overdose (6.7 percent), violence (26.5 percent), and “other causes” (26.5) percent (exhibit 3). From 1999 through 2004, adverse reaction to drugs (as the identified cause of death) accounted for 48.0 percent, overdose accounted for 4.8 percent, violence accounted for 20.1 percent, and 27.2 percent were attributable to other causes. In 2005, White male decedents ( $n=315$ ) outnumbered African-American male decedents (308), while African-American females (104) outnumbered White females (99). The remaining 78 deaths were among Hispanics (67) and Asians and Native Americans (11). Overall, Whites accounted for 45.8 percent of the deaths; African-Americans constituted 45.6 percent; Hispanics represented 7.4 percent, and Asians and Native Americans accounted for 1.2 percent. These figures vary slightly from the makeup of Philadelphia's population.

The total number of drugs detected during calendar year 2005 in Philadelphia through the NFLIS was 28,179, with no count of alcohol. Of these, 89 percent were cocaine, marijuana, or heroin.

In the 2005 APPD study, adults on probation or parole tested positive in 54 percent of all tests. The leading drugs were marijuana, cocaine, other opiates, heroin, benzodiazepines, phencyclidine (PCP), and alcohol.

#### Cocaine/Crack

Cocaine/crack remains the major drug of abuse in Philadelphia. Treatment admissions data from 2003 through 2005 reveal cocaine as representing the plurality of mentions (exhibit 1). African-Americans accounted for 63 percent of cocaine treatment admissions in 2005, followed by Whites (27 percent), Hispanics of any race (11 percent), and Asians and others (10 percent). Three-quarters were male, and 59 percent were age 36 or older.

ME data show that cocaine was present in 423 of the 904 decedents in 2005 and was detected in the highest percentage of mortality cases, which has been the case since 1994 (exhibit 2). Forty of the 423 deaths with the presence of cocaine had no other drug present.

NFLIS data revealed that cocaine was detected in the highest number of lab tests in 2005:  $n=12,696$ , or

45.1 percent.

APPD urinalysis data of adults on probation or parole revealed the presence of cocaine in 37 percent of the tests in 2005. Cocaine ranked second to marijuana in the APPD data.

The predominant form of crack sold in Philadelphia is the “rock,” which usually costs \$5. Treys (\$3 rocks) continued to be available in 2005. Shapes of crack range from circular, to bumpy-circular, to pieces cut into the shape of a parallelogram. Powder cocaine is not as readily available in small (\$5) quantities, but \$10 and especially \$20 bags are quite common. Focus group participants continued to report that the majority of cocaine powder buys are for intranasal use, with the remainder either injected straight or injected in a “speedball.” These estimates were very similar to the focus group responses dating back to the spring of 2002.

Crack users continued to report frequent use in combination with 40-ounce bottles of malt liquor, beer, wine, or other drugs, including alprazolam, marijuana, or heroin.

### Heroin/Morphine

According to DEA DMP data, the average street-level purity of heroin in Philadelphia declined every year from 2000 (73.0 percent) through 2004 (51.6 percent) (exhibit 4). The average purity was reported as 54.4 percent in 2005 and 38.0 percent in the first quarter of 2006. Individuals who are new to treatment continue to identify these six behavior changes associated with lower purity:

- Switch to injecting from other routes of administration
- Inject more heroin
- Inject more frequently
- Add other drugs
- Switch to pharmaceutical products that have reliable purity and predictable effects (notably oxycodone products)
- Tire of pursuing the high and enter treatment

Treatment admissions data reveal heroin as constituting the third highest percentage of mentions in 2003 but the fourth highest percentages in 2004 and 2005 (exhibit 1). Whites accounted for 51 percent of heroin treatment admissions in 2005, followed by

African-Americans (21 percent), Hispanics of any race (13 percent), and Asians and others (15 percent). Seventy-seven percent were male, and 42 percent were age 21–30.

ME data show that heroin/morphine was present in 215 of the 904 decedents in 2005 and ranked second in illicit drug detections and third behind cocaine and alcohol-in-combination (exhibit 2). Only 7 of the 215 deaths with the presence of heroin had no other drug present.

NFLIS data revealed that heroin was detected in the third highest number of lab tests in 2005:  $n=2,583$ , or 9.2 percent.

APPD urinalysis data of adults on probation or parole in 2005 revealed the presence of heroin in 13 percent of the tests. Heroin ranked fourth in the APPD data.

Focus group participants continued to report that the \$10 bag of heroin remained the standard unit of purchase. The \$10 bag usually yields one hit, and \$20 bags are also available. All groups since autumn 2000 reported that the average heroin user injects the drug four or five times per day.

### Other Opiates and Narcotics

#### *Oxycodone*

The nonmedical use of oxycodone products, including OxyContin, Percocet/Percodan, Roxicet, and Tylox, continued to be reported by individuals in treatment. The mentions of these drugs by people admitted to treatment programs were unstable from 2003 to 2005 (exhibit 1)

Oxycodone was detected in 540 decedents from 1994 through 2005 and was the eighth most frequently detected drug during that time period (exhibit 2). Detections of oxycodone have been rapidly increasing since 2000. The 2005 annual total, 119, exceeded the previous high, 103 in 2004. In 2005, oxycodone was present in 13.2 percent of all drug-positive deaths.

NFLIS data revealed that oxycodone was detected in the fifth highest number of lab tests in 2005:  $n=565$ , or 2.0 percent.

#### *Hydrocodone*

Hydrocodone mentions in mortality cases have also increased in recent years. There were 40 positive toxicology ME reports for hydrocodone in 2003, 51 in 2004, 66 in 2005, and a total of 305 cases in the 12-year period from 1994 to 2005. Hydrocodone

detections ranked 13th among all deaths with positive toxicology reports.

### **Methamphetamine**

Methamphetamine and amphetamines remain relatively minor problems in Philadelphia. Use of these drugs appears to be confined to a small portion of the population who use them primarily to prolong sexual encounters in unsafe settings.

Treatment admissions data from 2003 through 2005 reveal a miniscule proportion of methamphetamine mentions (less than 0.2 percent in 2005) (exhibit 1).

There were 98 deaths with the presence of methamphetamine from 1994 through 2004 and an additional 20 detections in 2005. Deaths with the presence of methamphetamine ranked 33rd in the 12 years from 1994 to 2005.

NFLIS data revealed that methamphetamine was detected in the (tied for) 13th highest number of lab tests in 2005:  $n=49$ , or 0.2 percent.

#### *Other Amphetamines*

Treatment admissions data from 2003 through 2005 also reveal a small proportion of amphetamine mentions (less than 0.2 percent in 2005) (exhibit 1).

There were 90 deaths with the presence of other amphetamines from 1994 through 2004, plus 18 additional detections in 2005.

NFLIS data revealed that amphetamine was detected in the 23rd highest number of lab tests in 2005:  $n=8$ , or 0.02 percent.

### **Marijuana**

Treatment admissions data reveal marijuana as representing the fourth most mentions in 2003 and third most in 2004 and 2005 (exhibit 1). African-Americans accounted for 60 percent of marijuana treatment admissions in 2005, followed by Whites (19 percent), Hispanics of any race (10 percent), and Asians and others (11 percent). Eighty-three percent were male, and 53 percent were age 30 or younger.

NFLIS data revealed that marijuana (cannabis) was detected in the second highest number of lab tests in 2005:  $n=9,791$ , or 34.8 percent.

APPD urinalysis data of adults on probation or parole in 2005 revealed the presence of marijuana in 44 percent of the tests, the highest amount in the APPD

data.

Focus group participants since the spring of 2004 continued to report the increasing use of blunts, especially the use of flavored cigars. These groups and outreach workers continued to report that marijuana use is widespread throughout Philadelphia.

The combination of marijuana and PCP, frequently mixed in blunts, is commonly called a “love boat” or “wet” (which is also a term for PCP). This combination is becoming less popular, as PCP use seems to be declining.

Blunts laced with crack (called “Turbo”) are still common. Blunt users commonly ingest beer, wine coolers, whiskey, alprazolam, or diazepam along with the blunt. Less commonly, blunt smokers use powder cocaine, vodka, barbiturates, clonazepam, oxycodone, cough syrup, and/or methamphetamine. These comments by users continue to underscore the common practice of multiple drug use, either simultaneously or sequentially.

### **Phencyclidine**

PCP began to gain popularity as an additive to blunts in 1994, and its use increased up to around the beginning of 2004. Since then, users reveal that use is declining, identifying an aversion to “bad trips” and unpredictable experiences while on PCP.

Mentions of PCP use at admission to treatment declined precipitously from 2004 to 2005 (exhibit 1). African-Americans accounted for 43.6 percent of PCP treatment admissions in 2005, followed by Whites (16.7 percent), Hispanics of any race (16.2 percent), and Asians and others (23.6 percent). Eighty-six percent were male, and 58 percent were age 30 or younger.

PCP was detected in 449 decedents from 1994 through 2004, making it the fifth most frequently detected drug during that time period. However, with 42 additional cases in 2005, PCP’s ranking dropped to ninth in the 12-year period ending December 2005 (exhibit 2).

NFLIS data revealed that PCP was detected in the sixth highest number of lab tests in 2005:  $n=565$ , accounting for 2.0 percent of the total.

APPD urinalysis data of adults on probation or parole revealed the presence of PCP in 8 percent of the tests, the sixth highest amount in the APPD data in 2005.

Focus groups that were conducted in the spring of 2006 comprised of users new to treatment described typical PCP users as Hispanics and Whites in their early teens to mid-20s and equally likely to be female as male. Whereas PCP oil was more commonly noted as available in the past, PCP sprayed onto mint leaves was noted as the form that was currently available. The leaves are rolled into small joints using rolling papers; then they are smoked. Prices have declined when purchasing this drug in quantity. A “bundle” of 26 \$5 bags sold for \$100, and a bundle of 13 \$10 bags also sold for \$100 in the spring of 2006.

### **Benzodiazepines**

Benzodiazepines, particularly alprazolam (Xanax) and diazepam (Valium), continue to be used in combination with other drugs.

Treatment admissions data reveal benzodiazepines as accounting for the fifth most mentions from 2003 through 2005 (exhibit 1). Whites accounted for 50.0 percent of benzodiazepine treatment admissions in 2005, followed by African-Americans (27.6 percent), Hispanics of any race (9.7 percent), and Asians and others (12.7 percent). Seventy-eight percent were male, and 56.5 percent were age 30 or younger.

Diazepam was detected in 585 decedents from 1994 through 2004, making it the fourth most frequently detected drug during that time period, behind cocaine, heroin/morphine, and alcohol-in-combination. There were an additional 77 detections of diazepam in decedents in 2005, keeping the 12-year rank (exhibit 2).

NFLIS data revealed that diazepam was detected in the 10th highest number of lab tests in 2005:  $n=104$ , or 0.4 percent.

Alprazolam was detected in 353 decedents from 1994 through 2005, making it the 11th most frequently detected drug during that time period. There were 68 cases in 2005.

NFLIS data for 2005 revealed that alprazolam was detected in the fourth highest number of lab tests:  $n=788$  (2.8 percent).

Benzodiazepine abuse continued to be reported by focus group participants as common among users of heroin, oxycodone, cocaine, marijuana, and cough syrup. Since spring 2000, all focus groups have reported that alprazolam has overtaken diazepam as

the “most popular pill” on the street.

From 1994 through 2005, there were 195 positive toxicology reports for oxazepam (Serax), making this drug the 23rd most frequently detected drug. From 1994 through 2005, there were 187 positive toxicology reports for olanzapine (Zyprexa), making this drug the 24th most frequently detected drug.

### **Other Prescription Drugs of Note**

Prescription drugs are most frequently detected among decedents in combination with other drugs of the same type and/or in combination with cocaine, heroin, or alcohol. ME mentions for the most frequently detected prescription drugs among decedents (not already noted above) included methadone (6th), diphenhydramine (7th), and propoxyphene (10th) (exhibit 2). Additionally, deaths with the presence of fluoxetine (Prozac) ( $n=207$  in the 12-year data) ranked 21st.

Medications that contain codeine are also commonly abused in Philadelphia. The ME detected codeine in 120 cases in both 2003 and 2004, plus 139 in 2005. In the 12-year period ending December 2005, deaths with the presence of codeine ranked fifth (exhibit 2).

Dextromethorphan is a common ingredient in numerous cough and cold medications. Focus group participants beginning in the spring of 2004 indicated that its use was increasing among people age 30–40, particularly in combination with alprazolam and diazepam. The Philadelphia ME detected dextromethorphan in 68 cases in 2005, with a 12-year total of 208 detections, ranking 20th.

Diphenhydramine is an ingredient in numerous over-the-counter medications that are abused in Philadelphia. Negative consequences appear most markedly among decedents in combination with other drugs. The Philadelphia ME detected diphenhydramine in 116 cases in 2003, 129 cases in 2004, and 113 cases in 2005. Deaths with the presence of diphenhydramine ranked seventh in the 12-year totals (exhibit 2).

Quetiapine (Seroquel), an antipsychotic, has only been on the market for about 5–6 years. Through 2005, there were 72 quetiapine detections by the ME, ranking tied for 49th.

### **Club Drugs**

Ecstasy (3,4-methylenedioxymethamphetamine or MDMA), was detected in 88 NFLIS lab tests (0.31 percent), making it the 12th highest drug in the Philadelphia data. MDMA has been detected by the

ME since 1999. Through 2005, this drug was detected in 52 decedents, including 10 cases in 2005. Focus groups held since spring 2001 have reported that MDMA is used in combination with marijuana and lysergic acid diethylamide (LSD), which helps describe its use among club-goers. However, LSD use declined in the last 2 years. The focus groups conducted since autumn 2002 described MDMA users as evenly split by gender and as ranging in age from teenagers to persons in their early twenties. MDMA has also been infrequently reported as being used in combination with lemonade and alcohol.

The Philadelphia ME first detected 3,4-methylenedioxyamphetamine (MDA) in the second half of 1999. There have been 40 positive toxicology reports for MDA since then, including 10 cases in 2005. MDA was detected in nine samples tested by the NFLIS in 2005.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

As of December 31, 2005, Philadelphia recorded 17,770 cumulative AIDS cases among adults (exhibit 5). Among those cases, 6,263 involved injection drug users (IDUs) or needle-sharers. Another 898 were in the dual exposure category of IDUs who were also men who had sex with other men (MSM).

Cases reported as of December 31, 2005, with heterosexual contact as a risk factor continued to exceed the historical proportion. Heterosexual contact was the identified exposure category in 21 percent of all AIDS cases.

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**Exhibit 1. Drugs of Abuse Mentioned at Admission to Treatment in Philadelphia: 2003–2005**

<b>Drugs Mentioned</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Cocaine	4,935	4,818	5,151
Alcohol	4,383	4,232	3,835
Heroin	3,313	3,124	3,107
Other Opiates/Synthetics	713	1,042	483
Marijuana	3,069	3,153	3,120
PCP	618	563	347
Other Hallucinogens	180	101	106
Methamphetamine	17	37	33
Other Amphetamines	74	41	29
Benzodiazepines	1,129	1,165	626
Other Tranquilizers	7	17	14
Barbiturates	121	80	26
Other Sedatives/Hypnotics	11	34	489
Inhalants	1	6	9
Over-the-Counter	4	6	3
Other (Not Listed)	94	133	160
<b>Total</b>	<b>18,669</b>	<b>18,552</b>	<b>17,538</b>

SOURCE: Behavioral Health Special Initiative Client Data System



**Exhibit 2. Mortality Cases in Philadelphia with the Presence of the 10 Most Frequently Detected Drugs by the Medical Examiner: 1994–2005**

ME-Identified Drugs	Year												Total
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
Cocaine	368	336	277	304	218	238	321	300	270	326	399	423	3,780
Heroin/Morphine	262	318	290	336	249	236	332	316	275	208	214	215	3,251
Alcohol-in-Combination	253	254	182	214	157	179	197	185	153	290	219	323	2,606
Diazepam	58	44	35	58	39	67	46	56	28	66	88	77	662
Codeine	36	39	19	20	3	15	19	45	57	120	120	139	632
Methadone	23	12	26	24	10	36	36	46	55	79	132	113	592
Diphenhydramine	18	13	5	4	9	25	33	53	42	116	129	113	560
Oxycodone	4	2	1	14	29	17	49	53	68	81	103	119	540
Phencyclidine (PCP)	46	44	29	46	19	35	48	45	51	58	28	42	491
Propoxyphene	30	30	27	32	21	22	40	43	31	41	48	42	407
<b>Total Deaths with the Presence of Drugs</b>	<b>617</b>	<b>632</b>	<b>565</b>	<b>607</b>	<b>534</b>	<b>533</b>	<b>680</b>	<b>661</b>	<b>593</b>	<b>841</b>	<b>888</b>	<b>904</b>	<b>8,055</b>
<b>Total Drugs Mentioned</b>	<b>1,346</b>	<b>1,245</b>	<b>1,121</b>	<b>1,282</b>	<b>1,039</b>	<b>1,232</b>	<b>1,637</b>	<b>1,857</b>	<b>1,589</b>	<b>2,672</b>	<b>3,330</b>	<b>3,336</b>	<b>21,686</b>
<b>Average Number of Drugs Per Death</b>	<b>2.18</b>	<b>1.97</b>	<b>1.98</b>	<b>2.11</b>	<b>1.95</b>	<b>2.31</b>	<b>2.41</b>	<b>2.81</b>	<b>2.68</b>	<b>3.18</b>	<b>3.75</b>	<b>3.69</b>	<b>2.69</b>

SOURCE: Philadelphia Medical Examiner's Office

**Exhibit 3. Causes of Annual Mortality Cases in Philadelphia, as Determined by the Medical Examiner, by Percent: 1999–2005**

ME-Identified Cause	1999	2000	2001	2002	2003	2004	2005
Adverse Effect of Drugs	55.7	56.6	56.4	57.7	30.4	31.0	40.2
Overdose	3.8	2.1	3.8	2.5	6.3	10.1	6.7
Violence by Another Person	9.6	13.0	10.0	11.6	17.2	16.3	17.4
Violence to Oneself	6.6	5.6	6.2	5.6	10.5	8.3	9.2
Other Causes <sup>1</sup>	24.3	22.7	23.6	22.6	35.6	34.2	26.5

<sup>1</sup>Includes deaths with the presence of drugs caused by accident, injury, drowning, or a health or physical malady.

SOURCE: Philadelphia Medical Examiner's Office

**Exhibit 4. Average Percentage of Purity of Street-Level Heroin in Philadelphia: 1994–1Q 2006**

Year												
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	1Q 2006
63	70	63	80	71	72	73	71	66.3	59.6	51.6	54.4	38.0

SOURCE: DMP, DEA

**Exhibit 5 Adult AIDS Cases in Philadelphia by Exposure Category: Cumulative Totals through December 30, 2005**

Exposure Category	November 1, 1981, to September 30, 2005	
	Number	Percent
IDU	6,263	35.2
MSM and IDU	898	5.1
MSM	6,589	37.1
Heterosexual Contact	3,724	21.0
Blood Products	97	0.5
No Identified Risk Factor	199	1.1
Total Adult Cases	17,770	100.0

SOURCE: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Drug Abuse Trends in Phoenix and Arizona

Ilene L. Dode, Ph.D.,<sup>1</sup> and James K. Cunningham, Ph.D.<sup>2</sup>

## ABSTRACT

*Methamphetamine continues to be the apparent drug of choice in the greater Phoenix area and throughout most of the State, with the exception of Tucson, where cocaine appears to be more prevalent. Hospital admissions associated with the use of the two illicit drugs are rising in Arizona. Since the second half of 2003, methamphetamine and cocaine were the two drug types most often listed concurrently on hospital admissions records. Cocaine and heroin/opioids was the most frequent combination found in hospital admissions records from 2000 through the first half of 2003, but it is now the second most frequent and appears to be on the decline. Vital Statistics reported 629 deaths of Arizona residents in 2004 that were attributed to mental and behavioral disorders related to psychoactive substance use, accidental overdose of drugs, or drug poisoning of undetermined intent. A reward of \$10,000 in cash is being offered for information leading to the arrests of three men for pharmacy robberies involving OxyContin. Blister packs of methamphetamine tablets are becoming available for sale in nightclubs. All major drug treatment agencies within Maricopa County reported methamphetamine as the primary drug identified at the time of admission. Prescription and over-the-counter medications are second only to marijuana in reported use, according to survey data. As a proportion of emergent HIV/AIDS cases, those involving injection drug use may be declining.*

## INTRODUCTION

### Area Description

Arizona was the last of the 48 continental States to be accepted into the Union and became a State on Valentine's Day 1912. It is now, however, the 17th most populous State (5,939,959) according to 2005 Census Bureau estimates. The word Arizona means "little spring" in the Tohono O'odham Indian language. More than one-quarter of Arizona is designated as

Indian reservation. The Tohono O'odham reservation borders Mexico. Its 70-mile border with Mexico is virtually unguarded, making it a magnet for smugglers and illegal immigrants.

Maricopa County, which includes the thriving Phoenix metropolitan area of more than 20 communities (including Chandler, Gilbert, Glendale, Mesa, Scottsdale, and Tempe) has a population of 3,635,528 people according to 2005 Census Bureau estimates. Also known as the Valley of the Sun, the area covers more than 400 square miles. The population is 78.6 percent White, 3.8 percent Black/African-American, 2.6 percent Asian, 1.9 percent Native American, and 13.2 percent "other." About 28 percent of the population identify themselves as Hispanic/Latino.

## Data Sources

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

- **Treatment data** are from these sources: Arizona Department of Health Services (ADHS), Division of Behavioral Health Services (DBHS), Bureau for Substance Abuse Treatment and Prevention *Annual Report on Substance Abuse Treatment Programs*, February 2006, for state-wide admissions in fiscal year (FY) 2006; the local (Maricopa County) Community Bridges treatment admissions report, July 1, 2005–March 31, 2006; Treatment Assessment Screening Center (TASC), Inc., Maricopa County Adult Deferred Prosecution Program Annual Cumulative Report, March 1, 1989–March 31, 2006, and Client Drug Test Results Summary for Maricopa County Juvenile Probation October 1, 2005–March 2006; and TERROS, Inc., *Demographic Report for Substance Abuse Clients*, July 1, 2005–December 31, 2005.
- **Emergency department (ED) data** were derived for January–December 2005 from the Drug Abuse Warning Network (DAWN) *Live!* restricted-access online query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), updated April 14–18, 2005. The completeness of the data are shown in exhibit 1. The types of cases covered are depicted in exhibit 2. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, the data presented in this paper are subject to change. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. Drug reports exceed the number of ED visits, since a

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patient may report use of multiple drugs (up to six drugs and alcohol). The DAWN *Live!* data are unweighted and, thus, are not estimates for the reporting area. These data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found at <<http://dawninfo.samhsa.gov>>.

- **Information on substance-abusing families entering treatment** was provided by the Arizona Department of Economic Security, Division of Children, Youth, and Families, *Arizona Families F.I.R.S.T. Program Annual Evaluation Report* for the period July 1, 2004–June 30, 2005. Data were prepared by Applied Behavioral Health Policy, University of Arizona, December 2005.
- **Hospital admissions data** are from the University of Arizona, Department of Family and Community Medicine, for January 2000–June 2005.
- **Information on child deaths related to the use of drugs or alcohol** was provided by the ADHS, Public Health Prevention Service, Office of Women’s and Children’s Health, Arizona Child Fatality Review Program, 12th Annual Report, November 25, 2005.
- **Drug-related death data** for Arizona in 2004 are from the ADHS, Division of Public Health Services, *Arizona Vital Statistics, Drug Related Deaths, 1994–2004*.
- **Law enforcement data** were derived from the Drug Enforcement Administration (DEA), Phoenix Division, Intelligence Quarterly Trends Report, First Quarter FY 2006, and the Arizona Criminal Justice Commission Enhanced Drug and Gang Enforcement Report, 2005.
- **Price/purity data** are from the DEA Phoenix Division Offices, U.S. Customs, Arizona Department of Public Safety, Phoenix Police Department, and the Maricopa County Sheriff’s Department, for 2001 and the first quarter of 2006.
- **School survey data** are from the Arizona Department of Education, Comprehensive Health Surveillance System (CHSS) 2005 Youth Risk

Behavior Survey and represent students statewide in grades 9, 10, and 12.

- **Data on the Endangered Children Program** are from the Office of Arizona Attorney General Terry Goddard, Arizona Alliance for Drug Endangered Children (DEC) Program, *Meth Fact Sheet*, 2006.
- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** are from the DHS, Division of Public Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/STD Services, *HIV/AIDS Annual Report*, March 2006.
- **Population data** are from the U.S. Census Bureau Fact Sheet, American Population Estimates, 2005.

### Cocaine/Crack

In Arizona, cocaine was the third most common primary drug identified at time of admission into the ADHS/DBHS programs in FY 2006 (3,119 admissions, 14 percent of total admissions) (exhibit 3).

During the first three quarters of FY 2006, Community Bridges (an organization with detoxification and recovery clinics based in the greater Phoenix area) served a total of 13,568 individuals. Of this total, 2.87 percent reported cocaine use, and 6.45 percent reported crack use, similar to previous Phoenix CEWG reports. Excluding alcohol and “not entered” categories, cocaine/crack accounted for 27.7 percent of the 13,568 admissions served by the Community Bridges program in FY 2006.

The TASC Adult Deferred Prosecution Program cumulative data do not indicate a change in the percentage of admissions for cocaine treatment. Through March 2006, 28.1 percent (5,275) of 18,782 admissions were for cocaine treatment (exhibit 4a). Nearly 8 percent of juveniles tested positive for cocaine during the second and third quarters of FY 2006 (exhibit 4b).

TERROS, Inc., which is the largest substance abuse treatment provider in the Maricopa County behavioral health system, reported that 2,811 clients entered treatment for substance abuse/dependence during the first half of FY 2006. Of the total clients, 318 (11.3 percent) were either abusing or dependent on cocaine (exhibit 5).

Of the 1,870 individuals referred to Families F.I.R.S.T. (a program for substance-abusing families

from July 2004 through June 2005), 11.5 percent reported cocaine as the most frequently abused substance.

The number of unweighted cocaine drug reports in DAWN *Live!* was 1,962 during calendar year 2005 (exhibit 6). Cocaine represented 18.3 percent of major substances of abuse reported (including alcohol).

Hospital admissions data for Arizona statewide show that the combination of cocaine and heroin/opioids was the drug combination most frequently reported from 2000 through the first half of 2003 (exhibit 7a). From the second half of 2003 to the first half of 2005, the combination of cocaine and methamphetamine was the most frequently reported statewide. However, as the trend data in exhibit 7b show, cocaine hospital admissions declined somewhat from the first half of 2004 to the first half of 2005 (from 2,556 to 2,442). A similar trend occurred in Maricopa County, where cocaine admissions declined from 1,294 in the first half of 2004 to 1,099 in the first half of 2005 (exhibit 7c). In Pima County, where Tucson is located, hospital admissions for cocaine continued to exceed those for heroin/opioids and methamphetamine in the first half of 2005 (exhibit 7d). In Arizona “rural counties,” admissions for cocaine were considerably lower than those for other illicit drugs from 2000 through the first half of 2005 (exhibit 7e).

Arizona Vital Statistics data revealed 109 cocaine deaths in calendar year 2004 (exhibit 8a).

During the first quarter of 2006, the average purity of cocaine tested at the DEA Southwest laboratory was 73 percent, which represented a slight increase from previous reporting periods. Cocaine is often sold in multikilogram quantities. Prices were static, at \$400–\$600 per ounce of powder in Phoenix and \$500–\$650 per ounce in Tucson. In Phoenix, the price for a kilogram decreased slightly from \$14,500–\$16,000 in 2005 to \$13,200 in the first quarter of 2006, the same price as in calendar year 2004 (exhibit 9).

Crack cocaine continues to be readily available in the Phoenix metropolitan area. The price for a rock stabilized at \$10–\$20. An ounce sells for \$600–\$650, and a pound costs \$7,500 (exhibit 9).

The DEA reports the most frequent means of moving drugs into Arizona from Mexico is through the use of tunnels, commercial and passenger vehicles, small airplanes, backpackers, and on horseback. Cocaine is often sent across the border piecemeal, in 10- to 100-kilogram packages, and is stored until the full load is completed. A recent seizure of cocaine included a red “X” drawn on packages in permanent marker, the

word “PUMA,” and the likeness of a mountain lion with three interlocking rings impressed into the cocaine bricks.

### Heroin and Morphine

ADHS/DBHS data indicate that narcotics (e.g., heroin and morphine) were identified as the primary substance of abuse for 2,706 (12 percent) individuals seeking treatment in FY 2006 (exhibit 3). This is slightly lower than the 14 percent of admissions reported for cocaine/crack.

The Community Bridges data indicate that 9.8 percent of individuals seeking services at the clinics were there because of heroin abuse.

The TASC adult deferred prosecution program cumulative statistical report continued to reflect very low numbers (4.8 percent) for clients reporting an opiate drug problem (exhibit 4a).

In Maricopa County, ADHS/DBHS provides funding through the Regional Behavioral Health Agency (RBHA) for 2,340 methadone slots.

During the first two quarters of FY 2006, 152 (or 5.4 percent) treatment services provided for clients by TERROS, Inc., were for opioid dependence/abuse (exhibit 5).

The number of unweighted heroin ED reports in Phoenix for 2005 was 784 (exhibit 6). Heroin represented 7.3 percent of DAWN *Live!* major drug reports, including alcohol.

As noted earlier, heroin/opioids and cocaine was the most frequent combination of drugs among hospital admissions statewide from 2000 through the first half of 2003 (exhibit 7a). The number of heroin/opioid admissions declined after the second half of 2002, but they began to increase in 2004 (exhibit 7b). In the first half of 2005, hospital admissions for heroin/opioids totaled 2,869 statewide, the highest number for any semiannual period since 2000. In Maricopa County in the first half of 2005, there were 1,727 hospital admissions for heroin/opioids, an increase since 2000 (exhibit 7c). The number in Pima County was considerably lower—927 in the first half of 2005 (exhibit 7d). In rural counties, the numbers of hospital admissions for heroin/other opioids changed little from 2003 to the first half of 2005, when these admissions totaled 215 (exhibit 7e).

Mexican black tar is the dominant type of heroin found in Arizona; Mexican brown powder heroin is available to a lesser extent. Purity levels remained

relatively constant throughout FY 2006. Purity levels ranged between 41 and 66 percent pure heroin, with an average purity of 47.7 percent. One DEA case in Phoenix showed a purity of 82 percent.

Phoenix and Tucson continue to serve as transshipment and distribution points for high purity/low priced Mexican-produced heroin being smuggled to the Pacific Northwest and other areas across the United States

In Phoenix, the price for a “paper” (0.25 grams of heroin) remained unchanged at \$10–\$15. The Tucson DEA, U.S. Customs, and the Arizona Department of Public Safety reported an increase in the price for an ounce in Tucson. In the last CEWG report period, the price was \$650–\$700, compared with \$340 during this reporting period (exhibit 9).

### Other Opiates

ADHS/DBHS reported that “all other” opiates were the primary substance of abuse for 1,528 admissions (7 percent of the total) during FY 2005 (exhibit 3).

The Community Bridges program reported that 2.8 percent of their admissions during the first half of FY 2006 were for other opiates, including OxyContin.

The unweighted number of ED drug reports for other drugs in DAWN *Live!* in 2005 included 1,881 for opiates/opioids, with 369 of the reports being for hydrocodone, 530 recorded for oxycodone, and 323 being for opiates/opioids, unspecified (exhibit 10). Case types included seeking detox, overmedication, and other.

According to the Arizona Department of Health Services, Division of Public Health Services, Vital Statistics, there were 629 deaths of Arizona residents in 2004 that were attributed to mental and behavioral disorders related to psychoactive substance use, accidental overdose of drugs, or drug poisoning of undetermined intent. Narcotics and psychodysleptics were mentioned 418 times on 337 death records (53.6 percent of the 629 deaths) (exhibits 8a and 8b). The specific narcotic substances associated most frequently with poisoning deaths were cocaine (109), methadone (58), and heroin (37) (exhibit 8a). However, non-specific categories such as “other opioids,” “other synthetic narcotics,” and “other and unspecified narcotics” accounted for a slight majority (51.2 percent) of the 418 mentions of ICD-10 T-codes for narcotics.

The Silent Witness program and a pharmaceutical company are offering a \$10,000 cash reward for information leading to the arrests of three men in

pharmacy robberies for the past 11 months involving OxyContin. More than 50 robberies have occurred across the greater Phoenix area. A single individual typically enters a pharmacy and demands OxyContin or other forms of oxycodone. Threats of violence are made, but to date no one has been injured.

### Marijuana

ADHS/DBHS data indicated that 34 percent of individuals seeking treatment during FY 2006 did so primarily for marijuana use/abuse (exhibit 3).

The TASC Client Drug Test Results Summary for Maricopa County Juvenile Probation for the second and third quarters of FY 2006 shows that 75.6 percent of youth tested positive for tetrahydrocannabinol (THC) (exhibit 4b).

The TASC Adult Deferred Prosecution Program reported that 24.3 percent of admissions reported marijuana use/abuse from March 1989 through March 2006 (exhibit 4a).

TERROS diagnostic data show that 15.5 percent of admissions were classified as cannabis dependent or cannabis abuse (exhibit 5).

The Arizona Families F.I.R.S.T program, administered through the Department of Economic Security, is a statewide program for substance-abusing families entering the child welfare system, as well as those families receiving cash assistance through Temporary Assistance for Needy Families. Substance abuse is recognized as a major problem contributing to child abuse and neglect, and it is also a barrier for those attempting to re-enter the job market or maintain employment. During FY 2005, 31.4 percent of participating clients reported marijuana use at admission.

The unweighted number of marijuana ED drug reports in DAWN *Live!* from January through December 2005 was 1,437 (13.4 percent of all major substances of abuse) (exhibit 6).

Marijuana is readily available in large quantities. The DEA reports there are literally thousands of pounds of marijuana ready for distribution. As shown in exhibit 9, an ounce of marijuana sold for \$75–\$150 in Phoenix in the first quarter of 2006.

### Stimulants

Most drug indicators for Arizona suggest that methamphetamine is the drug of choice for a substantial percentage of the drug using/abusing population, and these indicators are stable or increasing. Of the

12 CEWG metropolitan areas participating in DAWN in all of 2005, Phoenix had the largest number of stimulant reports (3,078) and accounted for 22.3 percent of the 13,784 unweighted stimulant reports across the 12 areas. Of the 3,688 unweighted stimulant reports in Phoenix EDs in 2005, 2,287 (74.3 percent) were methamphetamine reports (exhibit 6).

The ADHS/DBHS data revealed that 33 percent of treatment admissions in the State in FY 2006 were for methamphetamine and other stimulants (exhibit 3). The growth of methamphetamine as the primary problem presenting in the public behavioral health system is striking. During FY 2002, methamphetamine accounted for just 11 percent of substances identified at admission to treatment, compared with 21 percent in 2004 and one in three in 2005. Little variation exists between urban and rural areas, with the exception of Pima County (Tucson), where there continues to be a lower proportion of treatment admissions and arrests reported for methamphetamine.

According to the annual report for the Families F.I.R.S.T program for substance-abusing families entering the child welfare system, 37.4 percent in FY 2005 reported methamphetamine as the most frequently abused substance, followed by alcohol (32.0 percent).

A statistical summary of the TASC Adult Deferred Prosecution Program admissions revealed that 27.2 percent (5,107) of the March 1989 through March 2006 treatment admissions were for methamphetamine use/abuse (exhibit 4a). In the second and third quarters FY 2006, 15.2 percent of the 6,835 juveniles submitting for drug testing at TASC tested positive for methamphetamine/amphetamine (exhibit 4b).

Community Bridges detoxification and recovery centers serve the homeless, indigent, and working poor individuals and families in Maricopa County. For 58 percent of the clients served, alcohol is the drug of choice. However, 13 percent of the admissions during the first three quarters of FY 2006 reported methamphetamine as the drug of choice. Excluding alcohol (7,807) and “not entered” (648) from the total data on 13,568 admissions, those for methamphetamine and other stimulants constituted 36.5 percent.

Of the 2,811 clients entering the TERROS treatment program during the first half of FY 2006, 44 percent (1,237) had a primary diagnosis of amphetamine abuse/dependence (exhibit 5).

As noted earlier, methamphetamine and cocaine was the most commonly reported drug combination in hospital admissions statewide from the second half of

2003 through the first half of 2005 (exhibit 7a). Statewide, hospital admissions related to methamphetamine abuse alone rose sharply from 2000 to the first half of 2005 (exhibit 7b), when these admissions totaled 2,977 and surpassed those for heroin/opioids and cocaine. In Maricopa County, methamphetamine hospital admissions exceeded those for heroin/opioids and cocaine from the last half of 2003 to the first half of 2005 (exhibit 7c), when they totaled 1,995. The pattern was quite different in Pima County, where methamphetamine admissions were lower than those for cocaine and heroin/opioids (at 584 in the first half of 2005). However, as depicted in exhibit 7d, methamphetamine hospital admissions trended upward from 2003 onward in Pima County. In Arizona’s rural counties, methamphetamine hospital admissions rose steadily from the second half of 2002 to the first half of 2005 to substantially exceed those for heroin/opioids and cocaine (exhibit 7e); they totaled 398 in the first half of 2005.

The Arizona Criminal Justice Commission reported that 4,472 drug offense violators were arrested in FY 2005, a 35-percent increase over FY 2004. Over the past 3 years, Arizona has experienced an increase in arrests for most types of drugs. Concomitant with the increase in arrests is the increase in the types of drugs being seized by multijurisdictional, multiagency task forces. Methamphetamine seizures increased 54 percent from FY 2004 to FY 2005, while cocaine seizures decreased by 38 percent and marijuana seizures remained relatively stable over the same time period (exhibit 11).

All reported prices for methamphetamine in the Phoenix area have decreased since the previous CEWG reporting period. Only the price for one-sixteenth ounce remained stable at \$70, while the price for an ounce dropped from \$600–\$800 to \$325–\$600 (exhibit 9).

Law enforcement authorities consider a methamphetamine seizure of a couple of pounds to be significant. A recent seizure (May 2006) involving Federal drug and immigration enforcement officials and the Maricopa County Sheriff’s Department was considered extraordinary. Seventy pounds of methamphetamine were seized in a raid on a rental stash house in west Phoenix. The largest amount previously confiscated by the Sheriff’s Department in a single drug seizure had been 3 pounds.

A DEA source reported a new packaging process for manufactured methamphetamine from superlabs in Mexico. The methamphetamine is pressed into tablet form and then packaged into blister packs that are then sold in nightclubs. The blister packs are labeled

“Ice Crystal,” and the inside of the package reads “The drug of the future.” Arizona Department of Corrections officers have seized greeting cards being sent to inmates that have been soaked in methamphetamine.

The Arizona High Intensity Drug Trafficking Area (HIDTA) center in Tucson has gathered seizure data from Federal, tribal, State, and local law enforcement agencies for the past 5 years. The data indicate that 1,150 pounds of methamphetamine were seized in Arizona during 2005, compared with 972 pounds in 2004. The Nogales, Arizona, (Point of Entry from Nogales, Mexico) DEA Office reported that the price of “glass” methamphetamine is approximately 50 percent higher than the price for regular methamphetamine. Law enforcement in Maricopa County negotiated a price of \$33,000 for 5 pounds of methamphetamine. Once methamphetamine has transited from Arizona to areas in the east, the price increases. In Kentucky, for example, a pound of methamphetamine sold for \$10,000.

The Phoenix Police Department reported that during the first 6 months of 2005, 115 individuals were murdered in Phoenix. Of the 115 individuals, 38 tested positive for methamphetamine, compared with 26 individuals involved in 110 murders in the first 6 months of 2004. During 2004, the Phoenix Police Department reported 22 individuals were shot by department officers. Of the 22 individuals who were shot, 19 tested positive for methamphetamine.

Law enforcement has speculated that a possible reason for lower availability of methamphetamine in Tucson is the distribution process. Methamphetamine is trafficked through Tucson to Phoenix. Phoenix is the distribution point. There may not be large quantities of methamphetamine being distributed back to Tucson.

According to law enforcement, not only is Arizona one of the major transshipment points for the distribution of drugs, but it is becoming a primary route for drug proceeds bound for Mexico. Seizures of bulk money in or destined for Arizona increased during the first quarter of FY 2006. More than \$11,000,000 was seized. Drug traffickers’ nondrug assets with a gross estimated value of \$16,989,123 were seized during the same time period.

The Arizona Attorney General’s Office and the Drug Endangered Children’s program reported that 408 children were rescued from methamphetamine labs from 2000 to 2005. Of these children, 281 were living in Maricopa County (Phoenix). From 2000 to

2002, 33 percent of children found in methamphetamine labs tested positive for methamphetamine.

### Other Drugs

Among other drugs most commonly used, the DEA Diversion unit reports Vicodin, Lortab, and other hydrocodone products; Percocet, OxyContin and other oxycodone products; benzodiazepines; methadone; hydromorphone; morphine; Demerol; codeine products; anabolic steroids; and carisoprodol (Soma) in combination with other analgesic controlled substances. Ultram (Tramadol) and nalbuphine (Nubain) continue to be highly abused prescription-only substances. Prices for diverted drugs are generally the same throughout the State.

DAWN *Live!* unweighted reports included 1,354 benzodiazepine cases and 391 muscle relaxant cases for pharmaceutical misuse (exhibit 10).

Treatment programs that serve adolescents reported that gamma hydroxybutyrate (GHB), methylenedioxyamphetamine (MDMA or ecstasy), lysergic acid diethylamide (LSD), Coricidin HBP, and Soma continue to be party drugs. At parties, everyone brings prescription and over-the-counter drugs to throw into a common pool of drugs that are available to everyone throughout the evening and night.

Ecstasy is known by many names (“X,” “E,” “euros,” “the hug drug,” and numerous other nicknames) based on the hundreds of imprints on the tablets. MDMA tablets are easily hidden by mixing them in with candies, such as M&Ms and Skittles. Sometimes they are hidden in Pez containers. The creative user drills a hole in the center of a MDMA tablet and then strings the tablets into candy necklaces and wears them along with plastic bead necklaces.

The Drug Free Arizona Partnership reported on the Partnership Attitude Tracking Study, which identified prescription pain medications as second to marijuana in use and abuse by youth. The summary of the 2005 Youth Risk Behavior Survey compiled by the CHSS of the Arizona Department of Education presented data on the percentage of students who have taken over-the-counter drugs to get high one or more times during the past 30 days. The average was 9.2 percent, with 7.5 percent of 9th graders, 9.2 percent of 10th graders, 9.9 percent of 11th graders, and 10.1 percent of seniors reporting such use in past 30 days.

The percentage of students who had taken a prescription drug without a doctor’s prescription one or more times during the past 30 days ranged from 8.9 percent



of 9th graders, to 10.1 percent of 10th graders, 10.9 percent of 11th graders, and 13.1 percent of seniors.

**INFECTIOUS DISEASES RELATED TO DRUG USE**

Since 1981, the year in which HIV/AIDS was first reported in Arizona, there have been 19,414 reports of HIV infection or perinatal exposure made to ADHS, of which 19,179 were confirmed cases of HIV infection.

Of the 19,179 confirmed reports of HIV infection submitted to ADHS, 9.7 percent (*n*=651) of HIV cases and 55.8 percent (*n*=6,952) of AIDS cases are known to be deceased. Between 1999 and 2004, the death rate among persons with HIV or AIDS has remained level at 4.0–4.4 per 100,000 population per year.

Arizona currently has 10,939 persons known to be living with HIV or AIDS (up 743, or 7.3 percent from 2005). Among persons now living with HIV infection, 5,130 have a diagnosis of AIDS (up 452, or 9.7 percent from 2005), and 5,809 have a diagnosis of HIV (up 291, or 5.3 percent from 2005). The State as a whole

has a reported HIV disease prevalence rate of 190.5 per 100,000 persons, up slightly from 182.7 in 2005 and 178 in 2004.

In the past decade, the annual rate for reported emergent HIV infection has shown a steady decline from 42.7 per 100,000 in 1990 to 12.7 per 100,000 in 2004. Arizona is considered a moderate incidence region for HIV infection.

Injection drug use is the second most frequently reported behavior associated with emergent HIV infection. In 2004, injection drug use behavior was associated with 19.4 percent of emergent HIV infection. As a proportion of emergent cases, injection drug use may be declining. Five-year injection drug use emergence fell between 2003 and 2004 from 23 percent to 22.1 percent.

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**Exhibit 1. DAWN ED Sample and Reporting Information in Phoenix: 2005**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample <sup>2</sup>	Total EDs in DAWN Sample	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
25	25	26	11–14	1–3	2 <sup>3</sup>	12–13

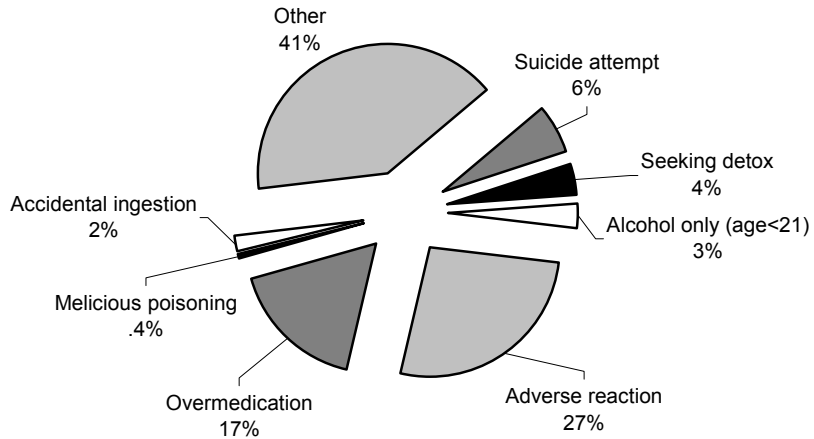
<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>One hospital has more than one emergency department.

<sup>3</sup>August 2005.

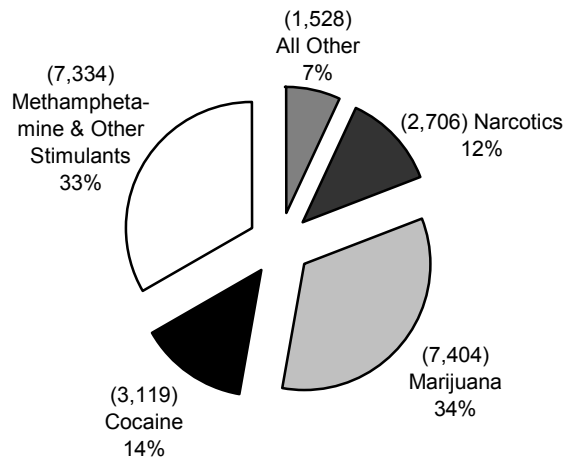
SOURCE: DAWN *Live!*, OAS, SAMHSA, updated 4/17–18/2006

**Exhibit 2. Drug-Related ED Visits in Phoenix, by Cases Type (Unweighted<sup>1</sup>): 2005**



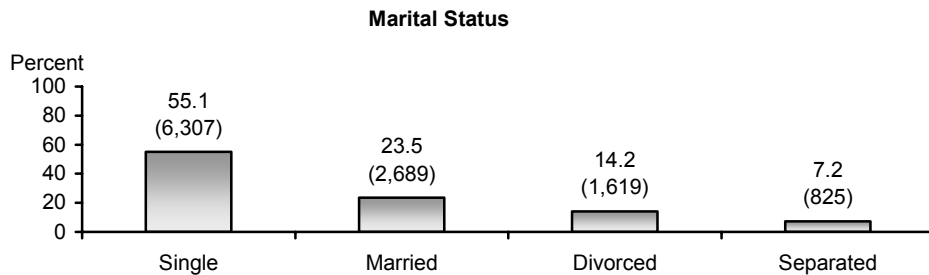
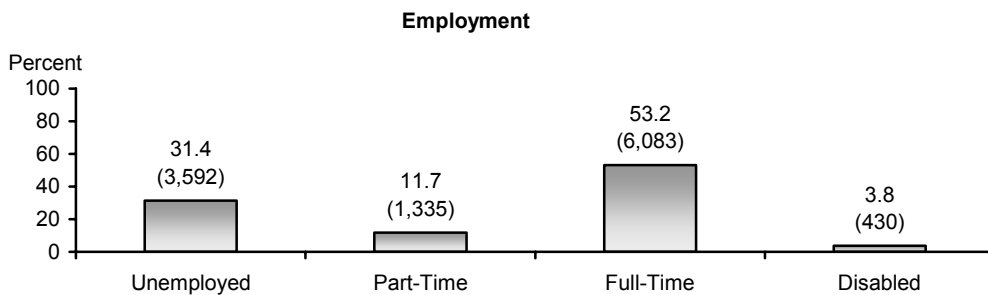
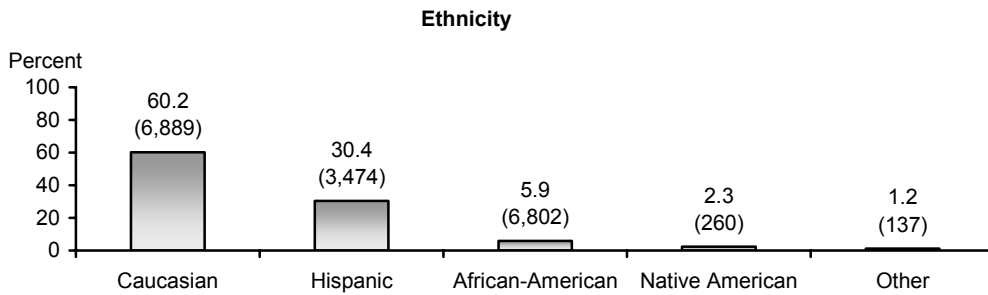
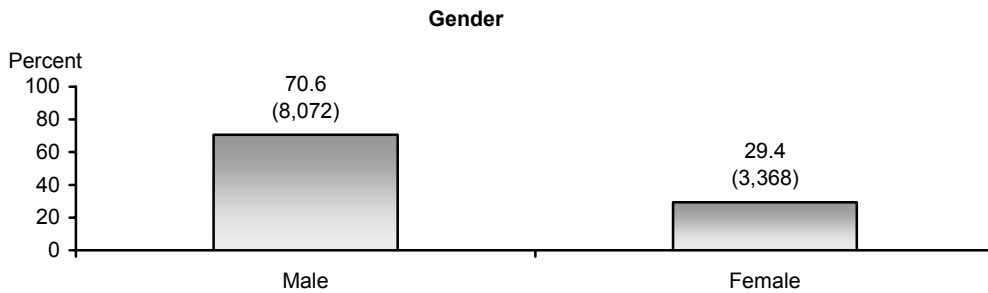
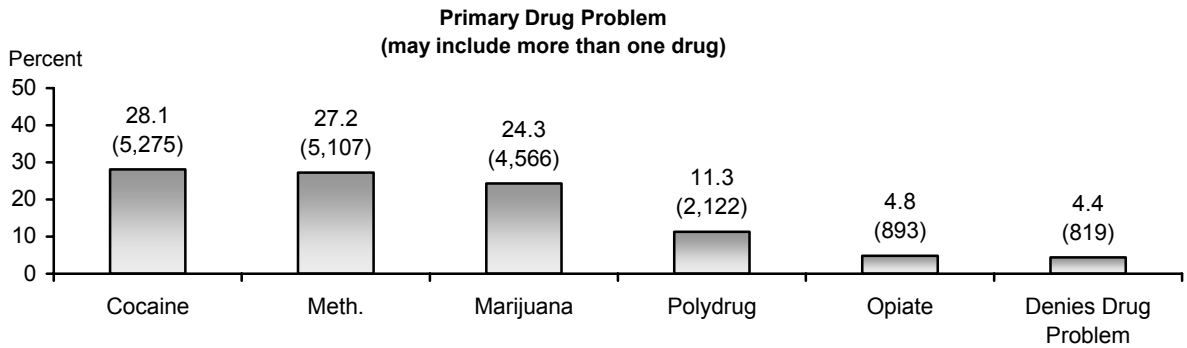
<sup>1</sup>The unweighted data are from 11–14 EDs reporting to DAWN in 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change.  
 SOURCE: DAWN Live! OAS, SAMHSA, updated 4/17–18/2006

**Exhibit 3. Primary Substances Used by Arizona Treatment Admissions, by Percent: FY 2006**



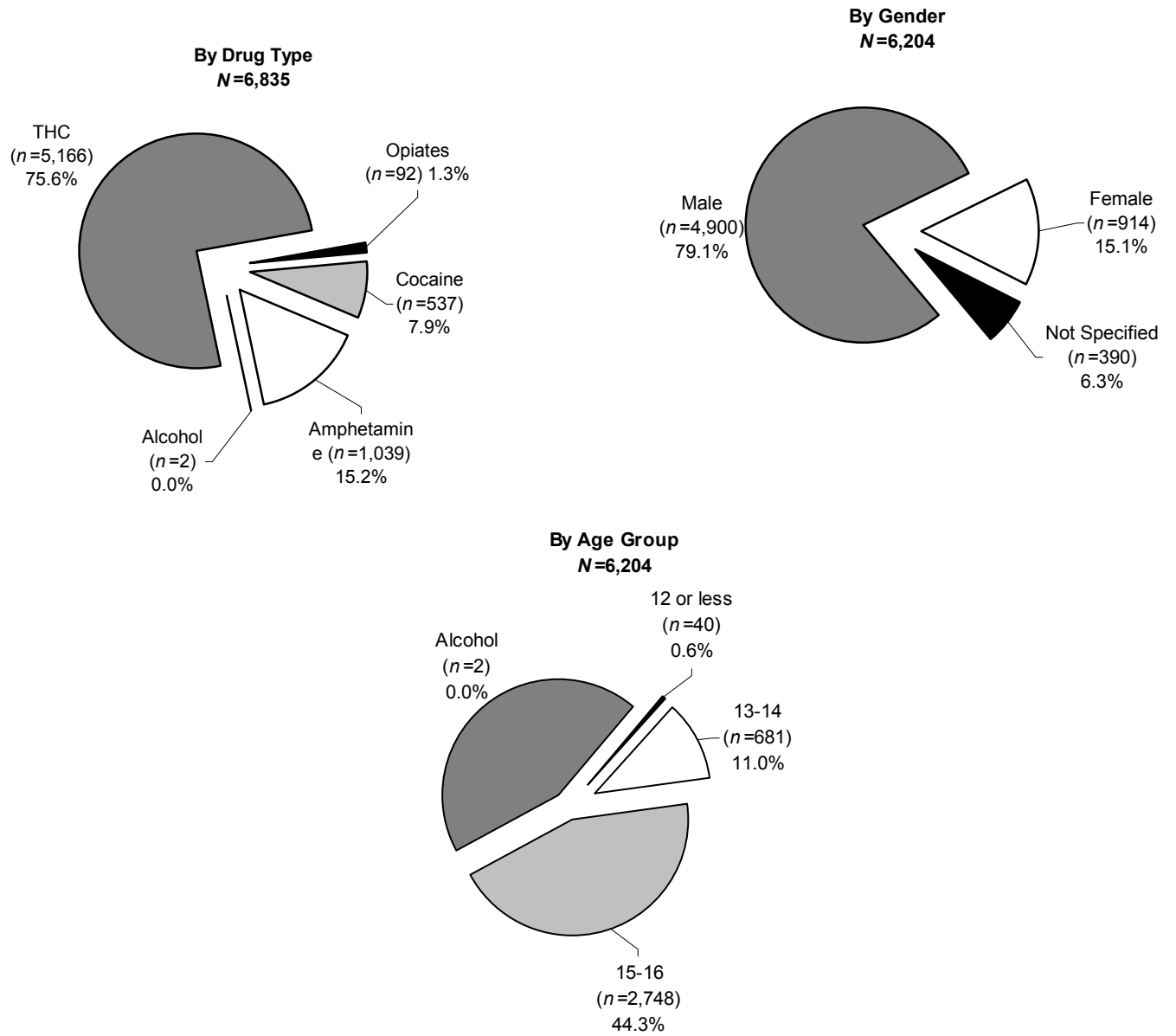
<sup>1</sup>Including heroin.  
 SOURCE: Arizona Department of Health Services, Division of Behavioral Health Services, Bureau for Substance Abuse Treatment & Prevention

**Exhibit 4a. Adult Deferred Prosecution Program Admissions for Selected Drugs in Maricopa County: March 1, 1989–March 31, 2006**



SOURCE: Adult Treatment and Assessment Screening Center (TASC) – Deferred Prosecution Program (Cumulative Statistical Report)

**Exhibit 4b. Client Drug Test Results for Maricopa County Juveniles: October 2005–March 2006**



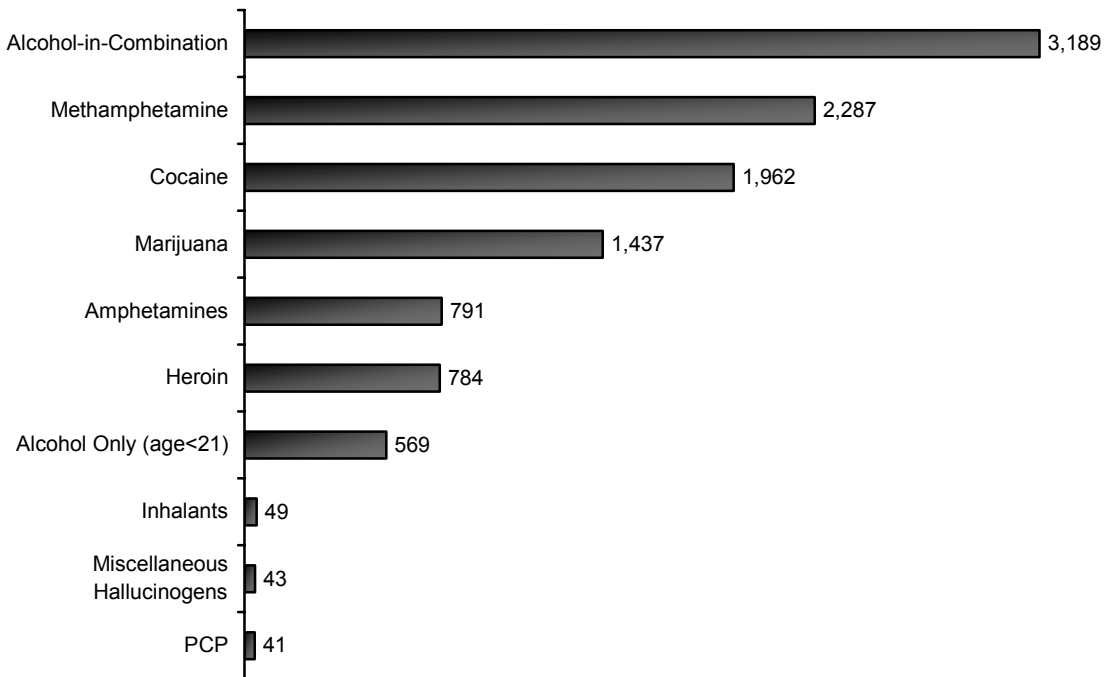
SOURCE: Treatment and Assessment Screening Center (TASC), Maricopa County Juvenile Probation

**Exhibit 5. Primary Substance Abuse Diagnosis Among Terros, Inc., Treatment Admissions, by Gender: 1H FY 2005**

Code	Primary Diagnosis (ICD-9)	Female	Male	Total
303.90	Other and Unspecified Alcohol Dependence	101	205	306
304.00	Opioid Type Dependence	43	75	118
304.10	Barbiturate and Similarly Acting Sedative or Hypnotic Dependence	3	4	7
304.20	Cocaine Dependence	78	81	159
304.30	Cannabis Dependence	51	81	132
304.40	Amphetamine and Other Psychostimulant Dependence	288	270	558
305.00	Alcohol Abuse	111	241	352
305.20	Cannabis Abuse	133	172	305
305.40	Barbiturate and Similarly Acting Sedative or Hypnotic Abuse	1	1	2
305.50	Opioid Abuse	17	17	34
305.60	Cocaine Abuse	73	86	159
305.70	Amphetamine or Related Acting Sympathomimetic Abuse	367	312	679
<b>Total</b>		<b>1,266</b>	<b>1,545</b>	<b>2,811</b>

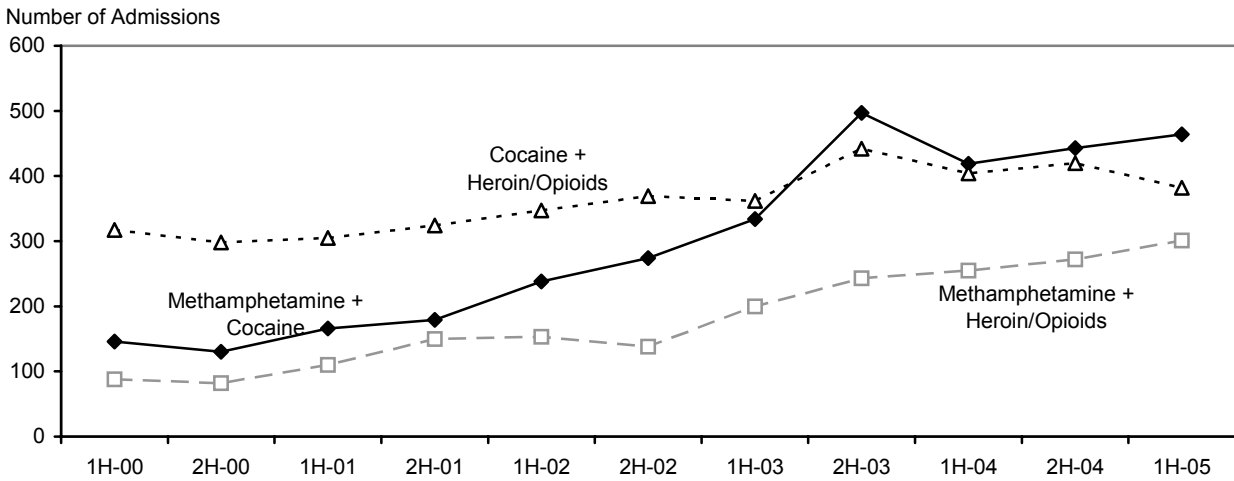
<sup>1</sup>For all diagnostic codes shown, “use” is “unspecified”; for Alcohol Abuse, the code entails “unspecified drinking behavior.”  
 SOURCE: Terros, Inc. Demographic Report for Substance Abuse Clients, July 1, 2005–December 31, 2005

**Exhibit 6. Number of Drug Reports in Drug-Related ED Visits, by Drug Category (Unweighted<sup>1</sup>): 2005**



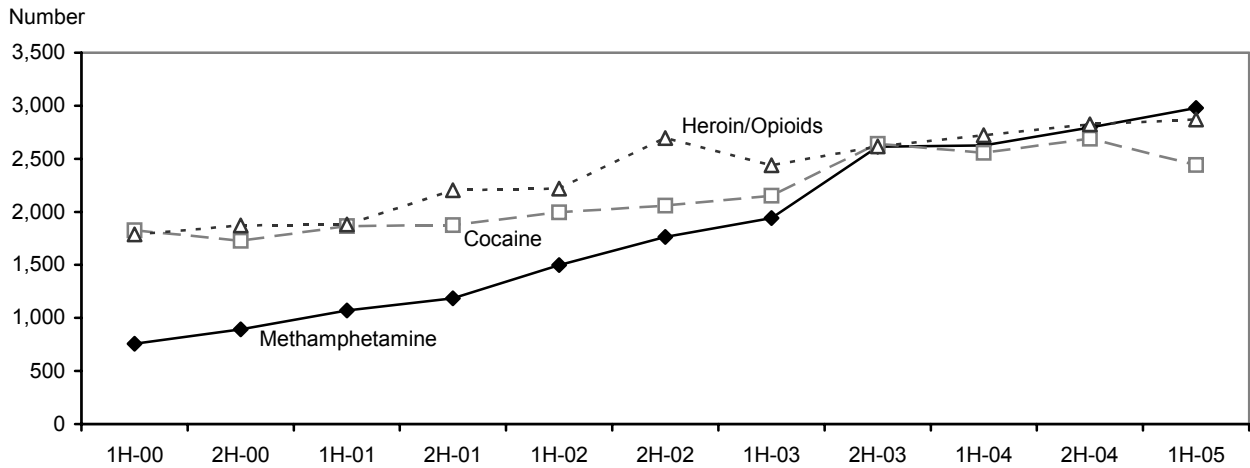
<sup>1</sup>All DAWN cases are reviewed for quality control, and based on the review, are subject to change.  
 SOURCE: DAWN Live!, OAS, SAMHSA, updated 4/17–18, 2006

**Exhibit 7a. Hospital Admissions in Arizona Related to Major Drugs: (1) Methamphetamine and Cocaine, (2) Methamphetamine and Heroin/Opiates, and (3) Cocaine and Heroin/Opiates: 2000–1H 2005**



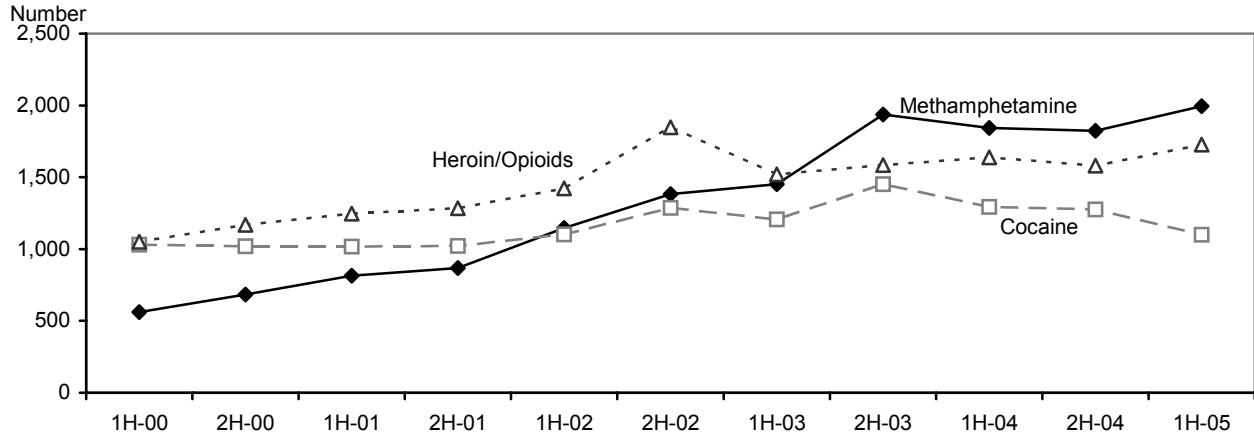
SOURCE: The University of Arizona, Department of Family and Community Medicine

**Exhibit 7b. Methamphetamine, Cocaine, and Heroin/Opioid Hospital Admissions in Arizona: 2000–1H 2005**



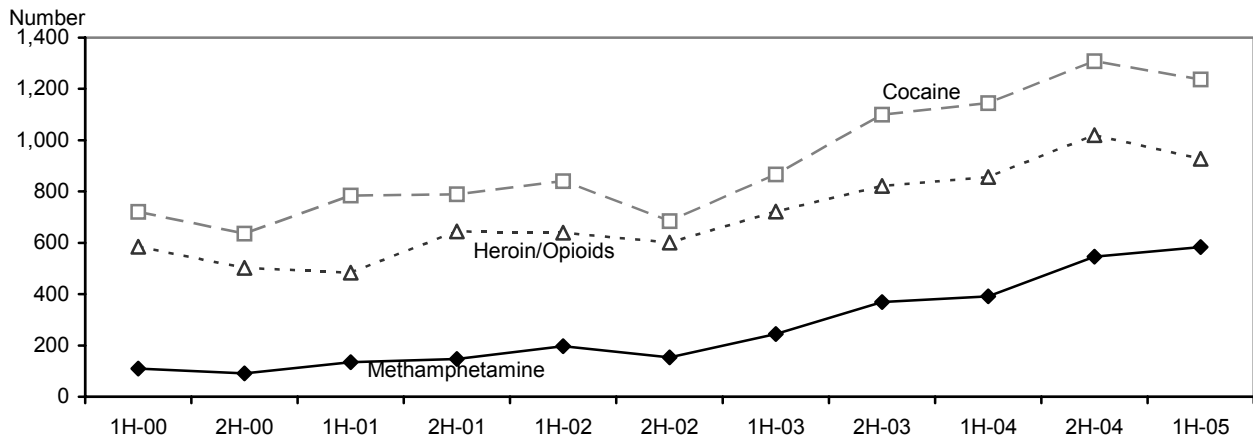
SOURCE: The University of Arizona, Department of Family and Community Medicine

**Exhibit 7c. Methamphetamine, Cocaine, and Heroin/Opioid Hospital Admissions in Maricopa County: 2000–1H 2005**



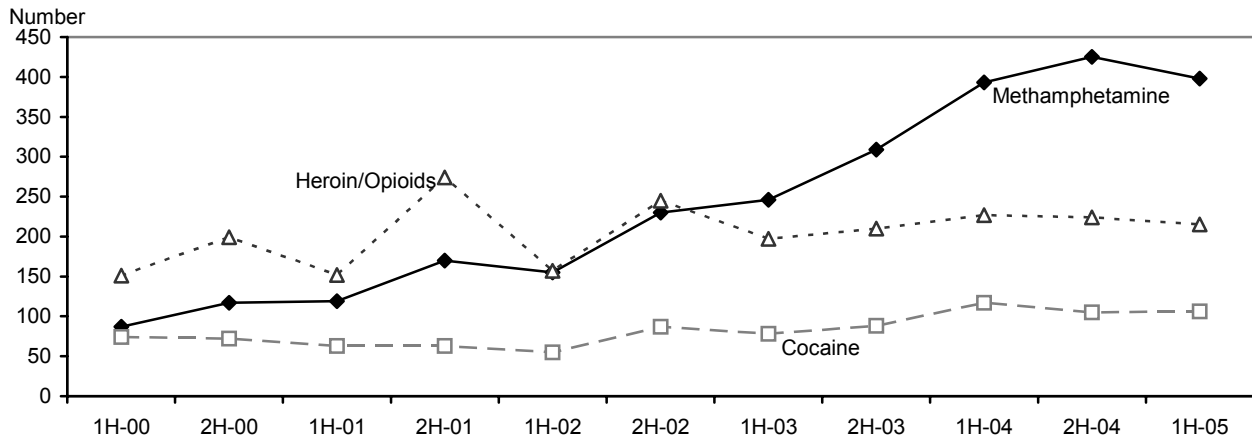
SOURCE: The University of Arizona, Department of Family and Community Medicine

**Exhibit 7d. Methamphetamine, Cocaine, and Heroin/Opioid Admissions in Pima County: 2000–1H 2005**



SOURCE: The University of Arizona, Department of Family and Community Medicine

**Exhibit 7e. Methamphetamine, Cocaine, and Heroin/Opioid Admissions in Rural Counties: 2000–1H 2005**



SOURCE: The University of Arizona, Department of Family and Community Medicine

**Exhibit 8a. Drug-Related Deaths in Arizona, by Drug, Gender, and Race/Ethnicity: 2004**

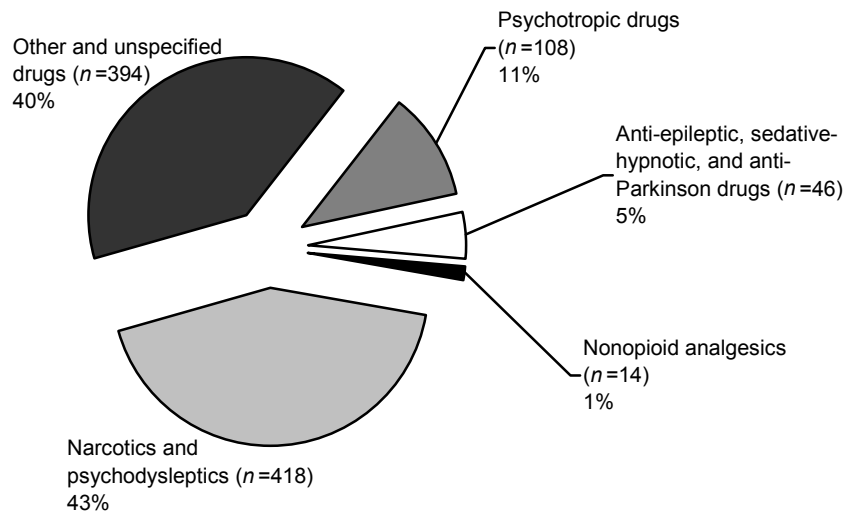
Drug Category/Substance <sup>1</sup>	Total Records	Gender		Race/Ethnicity <sup>2</sup>				
		Male	Female	White non-Hispanic	Hispanic/Latino	Black/African-American	Amer. Ind./Alaska Native	Asian/Pacific Islander
Narcotics and Psychodysleptics	337	243	94	238	63	17	17	1
Heroin	37	31	6	28	5	0	3	1
Other Opioids (e.g., codeine, morphine, oxycodone)	117	76	41	90	17	5	4	0
Methadone	58	42	16	43	11	2	2	0
Other synthetic narcotics	22	13	9	18	3	0	1	0
Cocaine	109	84	25	64	27	11	7	0
Other and unspecified narcotics	75	57	18	54	15	1	5	0
Psychotropic Drugs, Not Elsewhere Classified	104	67	37	83	13	2	5	0
Tricyclic and tetracyclic antidepressants	18	13	5	15	1	1	1	0
Other/unspecified antidepressants	19	6	13	11	6	1	1	0
Psychostimulants (e.g., methamphetamine)	68	51	17	56	7	1	3	0
Other/unspecified psychotropic drugs	3	2	1	2	1	0	0	0
Antiepileptic, Sedative-Hypnotic, and Anti-Parkinson Drugs	42	24	18	33	7	0	2	0
Barbiturates	2	1	1	1	1	0	0	0
Benzodiazepines	34	21	13	27	5	0	2	0
Other antiepileptic and sedative-hypnotic drugs	10	3	7	9	1	0	0	0
Nonopioid Analgesics (e.g., acetaminophen)	14	3	11	12	2	0	0	0
Other and Unspecified Drugs	394	253	141	310	50	10	19	1
<b>Total Deaths</b>	<b>629</b>	<b>426</b>	<b>203</b>	<b>475</b>	<b>94</b>	<b>21</b>	<b>33</b>	<b>1</b>

<sup>1</sup>The specific substances in the exhibit are identified using ICD-10 T-codes. The sum of all identified T-codes for substances (980) is greater than their combined number (629) of fatal overdoses or drug poisonings of undetermined intent. It may not be possible to identify the underlying causal agent in deaths involving multiple drugs.

<sup>2</sup>The race/ethnicity is unknown for 5 of the 629 cases.

SOURCE: Arizona Department of Health Services, Division of Public Health Services

**Exhibit 8b. Selected Substances Involved in Unintentional or Undetermined Drug Poisoning Deaths in Arizona<sup>1</sup>: 2004**



<sup>1</sup>More than one substance can be mentioned on a death certificate. The sum of all identified ICD-10-T codes for substances (980) is greater than the combined number (629) of fatal overdoses or drug poisonings of undetermined intent.

SOURCE: Arizona Department of Health Services, Division of Public Health Services



**Exhibit 9. Drug Prices in Phoenix and Tucson: 2001 and First Quarter 2006**

Drug/Quantity	2005		1Q 2006	
	Phoenix	Tucson	Phoenix	Tucson
Marijuana				
Grams	\$10–\$25	\$5–\$10	\$10–\$25	\$5–\$10
Ounce	\$75–\$150	\$65–\$105	\$75–\$150	\$65–\$105
Pound	\$500–\$750	\$400–\$600	\$500–\$750	\$400–\$600
Methamphetamine				
1/16 ounce	\$70	N/A	\$70	Not Reported
Ounce	\$600–\$800	N/A	\$325–\$600	Not Reported
Pound	\$7,000–\$9,600	N/A	\$6,500–\$7,5600	\$6,500–\$9,000
Kilogram	\$14,000–\$16,000	\$10,000–\$18,000	\$13,200	Not Reported
Cocaine				
Rock–250 milligram	\$10–\$20	\$10–\$20	\$10–\$20	\$20
Crack (ounce)	\$600–\$650	\$500–\$750	\$600–\$650	\$500–\$750
Crack (pound)	\$7,500	N/A	\$7,500	N/A
Eightball	\$80–\$120	\$80–\$130	\$80–\$120	\$80–\$130
Ounce	\$400–\$600	\$500–\$650	\$400–\$600	\$500–\$650
Kilogram	\$14,500–\$16,000	\$14,700–\$16,000	\$13,200	\$14,700–\$16,000
Heroin				
A "paper" (.25 gram)	\$10–\$15	\$20–\$25	\$10–\$15	\$20
Gram	\$40–\$47	\$50–\$110	\$50	\$50–\$110
Ounce ("piece", 28 grams)	\$800–\$850	\$650–\$700	\$800–\$850	\$340
Kilogram	\$28,000–\$35,000	\$32,000	\$28,000–\$35,000	\$600

Other Drugs	1Q 2006	
	Dosage	Price
MDMA	1 Tablet	\$20–\$30
OxyContin	80 mg Tablet	\$20–\$80
Percocet	1 Tablet	\$5
Vicodin ES	1 Tablet	\$5–\$7
Valium	10 mg Tablet	\$4
Lortab	10 mg Tablet	\$5–\$6
Soma	1 Tablet	\$2–\$5

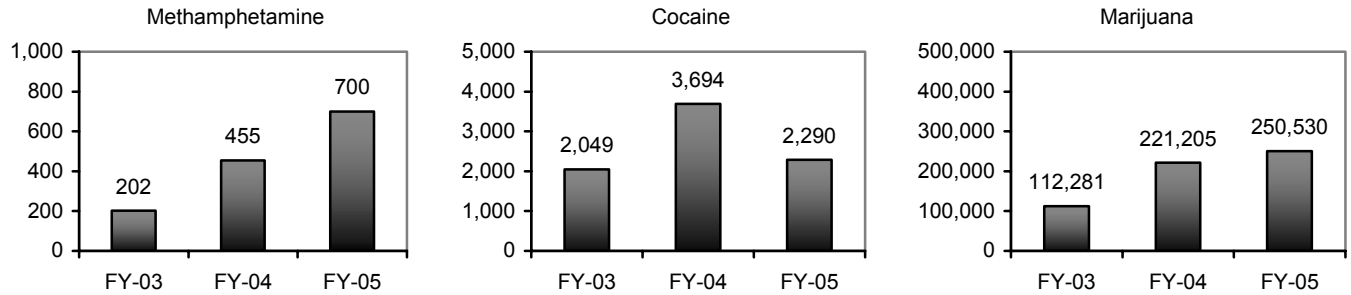
SOURCES: DEA Phoenix Division Offices, U.S. Customs, Arizona Department of Public Safety, Phoenix Police Department, Maricopa County Sheriff Department

**Exhibit 10. Number of Drug Reports in Drug Related ED Visits by Selected Drug (Unweighted<sup>1</sup>): 2005**



<sup>1</sup>All DAWN cases are reviewed for quality control, and based on the review, are subject to change.  
 SOURCE: DAWN Live!, OAS, SAMHSA, updated 4/17–18, 2006

**Exhibit 11. Three-Year Drug Seizure Data for Arizona, by Drug and Number of Seizures: 2003–2005**



SOURCE: Arizona Criminal Justice Commission Enhanced Drug and Gang Enforcement Report

# Patterns and Trends in Drug Abuse in St. Louis

Heidi Israel, Ph.D., R.N., L.C.S.W.,<sup>1</sup> and Jim Topolski, Ph.D.<sup>2</sup>

## ABSTRACT

*Law enforcement personnel in the St. Louis area continued to devote many resources to methamphetamine. Clandestine labs in rural areas continued to be a problem. Recent legislation to reduce access to pseudoephedrine-based cold medications has been credited with reducing the clandestine lab activity. Clandestine lab incidents dropped more than 20 percent from the previous year. Jefferson County, just south of St. Louis, continued to be one of the most active areas for methamphetamine. However, access to methamphetamine from Mexico and the Southwest is considered to be the major component of the methamphetamine problem in the city and county of St. Louis and the surrounding five Missouri counties. Treatment admissions in the St. Louis area for methamphetamine abuse rose 15 percent from 2004 to 2005, and statewide treatment admissions increased 23 percent over the same time-frame. A problem of immediate concern is the duo opiate problem. The most pressing issue is the recent increase in deaths related to the use of heroin and fentanyl. While this issue has gained widespread media attention in the St. Louis area, more data need to be collected and analyzed to determine the extent and nature of the problem. It is clear that heroin activity has increased; treatment admissions in the St. Louis area rose 43.2 percent from 2004 to 2005. Reports of white heroin supplies have increased over the past years and have been supported by DEA data. The other opiate problem is the abuse of narcotic analgesics. Treatment admissions for abuse of other opiates increased 61.5 percent in the St. Louis area in 1 year. Crack cocaine continued to be the major problem in the area, but most indicators have remained relatively stable, with treatment admissions down slightly (-3.1 percent). Marijuana indicators continue to increase. Primary marijuana treatment admissions rose 7.5 percent from 2004 to 2005. Club drug abuse continued to be sparse and decreasing. In the St. Louis area, 5 percent of HIV cases had a risk factor of injection drug use, and*

*another 5 percent were among men who have sex with men and also inject drugs.*

## INTRODUCTION

### Area Description

The St. Louis metropolitan statistical area (MSA) includes approximately 2.7 million people and is the 18th largest MSA in the country. Most of the population live 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. Recent 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 census. St. Louis City's population had continued to decrease to less than 350,000, many of whom are indigent and minorities. However, recent increases to the city's population have been noted. Violent crime increased in 2005, and it remains high in drug-trafficking areas. St. Louis County, which surrounds St. Louis City, has more than 1 million residents, many of whom fled the inner city. The county 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 classes and both small towns and farming areas. The populations in these rural counties total more than 800,000. The living conditions and cultural differences 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 treatment data are provided for rural areas and for the State. Limited data are available for other parts of Missouri and most of the Illinois counties and offer a contrast to the St. Louis drug use picture.

### Policy Issues

Methamphetamine production and use is a major concern for both law enforcement and the legislature. Small labs continue to place a hardship on law enforcement in terms of personnel and resources. In 2005, the State legislature took bold moves to require precursor drugs, such as pseudoephedrine, that are sold in local retail stores to be locked up or placed behind pharmacy counters. While this policy may now slow local producers, it will not end high rates of methamphetamine use for several reasons. First, it does not address the major source of methamphetamine in the Midwest—Mexico, a fact that gets lost in

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the local problem of the small “mom and pop” lab seizures shown in exhibit 1. In fact, clandestine laboratory seizures began to decrease shortly before implementation of the legislation, possibly the result of increasing availability of Mexican “ice” from the southwestern region of the country (see exhibit 2). Second, legislation does not restrict the purchase of all products containing pseudoephedrine, and local cooks are trying new recipes. Third, the legislation requires purchasers of products containing pseudoephedrine to sign log books documenting the transaction. Unfortunately, there is no electronic database of these log entries, so someone purchasing at multiple sites can not be readily detected. There is some evidence that local cooks may be collaborating and pooling resources, because more “major” clandestine labs, producing 2–9 pounds of methamphetamine, have been seized. Illinois has recently passed similar legislation addressing access to pseudoephedrine. Attention to methamphetamine has masked ongoing problems with cocaine and marijuana and growing problems with opiates.

Missouri has been in a budget crisis for years, resulting in cuts in services, particularly in health services including drug treatment and mental health. Limited treatment continues to be available for drug abusers. The addiction model as understood through experience and research has shown that treatment services are cost effective to both society and the individual, yet the trend is to offer these services on a limited outpatient basis. The result is that some of these indicators cannot fully reflect the degree of use or abuse of the substances tracked.

While Missouri maintains its State Epidemiology Work Group (SEWG), an additional work group has been created as part of the Strategic Prevention Framework – State Incentive Grant (SPF-SIG) sponsored by the Center for Substance Abuse Prevention. Hopefully, these groups can be used to provide additional perspectives for future reports. In addition, there are a number of research projects being conducted in the area that may soon provide useful information about drug trends. For example, Dr. Dean Klinkenberg of the Missouri Institute of Mental Health is conducting a study of the St. Louis MSA as part of the Centers for Disease Control and Prevention’s National HIV Behavioral Surveillance System (NHBS). This study of injection drug users (IDUs) should provide insight on needle using and related behaviors among this hidden population. In addition, Dr. Ted Cicero of Washington University is conducting a study of narcotic analgesic abuse in the St. Louis area. These endeavors should provide much

needed insight to the duo opiate problem in the St. Louis area.

### Data Sources

The sources used in this report are indicated below:

- **Drug treatment data** were derived from the Treatment Episode Data Set (TEDS) database for calendar year 2005. Private treatment programs in St. Louis County provided anecdotal information.
- **Heroin price and purity information** was provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), through 2004. However, some 2005 information has been provided by the local DEA office.
- **Drug-related mortality data** were provided by the St. Louis City Medical Examiner’s Office for calendar year 2005.
- **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 seizures** were provided by the National Forensic Laboratory Information System (NFLIS) for 2005.
- **Toxicology laboratory drug testing results** for probation and parole offenders were provided by the Missouri Department of Corrections for 2005.
- **Human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), and sexually transmitted disease (STD) data** were derived from the HIV Vaccine Trials Unit at Saint Louis University, the St. Louis Metropolitan Health Department and AIDS Program, and the Missouri Department of Health and Senior Services.

The number of hospitals in the St. Louis area reporting to the Drug Abuse Warning Network (DAWN) *Live!* system is insufficient to produce reliable and valid emergency department estimates for the city. It is hoped that another source of hospital emergency room, admissions, or discharge data will be found to fill this information gap.

## DRUG ABUSE PATTERNS AND TRENDS

Cocaine indicators are stable in St. Louis. While methamphetamine has become a prominent drug of abuse in other cities and in the rural areas of Missouri, cocaine has retained its dominance in the St. Louis urban area. Possible reasons for this situation include racial differences, with Caucasians using methamphetamine and African-Americans using cocaine, and the strong influence of the distribution networks. The distribution of cocaine and heroin is primarily conducted by African-Americans. Methamphetamine is imported into St. Louis from Mexico or produced locally in the rural areas of the county and State.

Two types of heroin have continued to be available in the area, but the heroin is not as pure and is more expensive when compared with other cities. This Midwestern city is a destination market, with small entrepreneurial groups marketing the drug. Heroin is available in the suburbs and in some of the surrounding rural areas on a limited basis, thus illustrating that this drug is not confined to the lower socioeconomic strata in the city. There is recent evidence that St. Louis may be one of several cities affected by the availability of heroin/fentanyl combinations. There have been numerous media reports of overdoses attributed to fentanyl-laced heroin. However, publicly available indicators verifying these recent deaths in the first half of 2006 as related to fentanyl are not yet available.

Drug education and prevention activities have continued at the community level. 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 being implemented. These groups are particularly active in the surrounding counties of St. Louis. The poor city economy continues to foster drug abuse and distribution. Marijuana continues to be a very popular drug of abuse among younger adults. Gangs continue 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 include Operation Jetway and Operation Pipeline.

While not reported separately, alcohol abuse and underage use of alcohol are community concerns. Many traffic accidents and violence against persons include alcohol use in the situation. In St. Louis, 17.1 percent of treatment admissions are for alcohol alone, with alcohol used in combination with other drugs in another 11.9 percent of the treatment admissions in 2005.

With the severe cuts in services in this State, the treatment admissions data, an important indicator of

longer-term use of drugs, may not accurately reflect the severity of the drug abuse problem.

**Cocaine/Crack**

The preliminary Medical Examiner (ME) data report for 2005 for the St. Louis area showed that cocaine remained the most cited drug, with 106 mentions out of 339 deaths (or 31 percent of all cases).

Among treatment admissions for illicit drug abuse in 2005, the number for primary cocaine abuse reflected a 3.1-percent decrease compared with 2004. Cocaine remained the most common primary drug of abuse among all admissions (27.8 percent), followed by marijuana (24.0 percent) and heroin (13.3 percent) (exhibit 3a). In 2005, males constituted 58.2 percent and females represented 41.8 percent of cocaine admissions. Admissions for African-Americans (71.4 percent) were more than 2½ times the proportion for White cocaine abusers (27.9 percent). Most of those admitted were age 35 or older (72.1 percent). Marijuana and alcohol were the most frequently cited secondary and tertiary drugs of abuse.

Although the DEA's emphasis has shifted from cocaine to methamphetamine and heroin, law enforcement sources, the DEA, and street informants continued to report high quality, wide availability, and low prices for cocaine. Cocaine is used and most available in the urban areas. In 2004, the last year for which data are available, powder cocaine grams sold for \$100–\$125; purity averaged 70 percent (exhibit 3b). Crack prices remained at \$20 per rock on the street corner. All cocaine in St. Louis is initially in the powder form and is converted to crack for distribution. Cocaine was readily available on the street corner in rocks or grams. The price of a gram of crack in Kansas City was lower than in St. Louis (at \$100–\$120). The “rock” price is the same in smaller cities outside St. Louis when it is available, but the gram price is higher.

NFLIS data indicated that 2,696 (40.5 percent) drug items analyzed in 2005 were cocaine. This was a 12.9-percent increase in the number of items over 2004 but a small decrease (1.0 percent) in the percentage of all items tested in 2004.

The Missouri Department of Corrections probation and parole toxicology data indicated that the Eastern Region, which includes the St. Louis area, had the highest percentage of positive tests for cocaine among this population in 2005. However, there is much variation in the area. Of probation and parolees testing positive for any drug, those in the city of St. Louis (38.4 percent) were more likely than those in

St. Louis County (34.0 percent) or those in the surrounding Missouri counties (20.5 percent) to test positive for cocaine.

The continued use of cocaine has potentially severe long-term consequences by contributing to the spread of STDs through multiple partners. Crack cocaine is considered to be a primary risk for HIV in many research trials.

Most cocaine users smoke crack cocaine, though some use powder cocaine. Ninety-one percent of primary cocaine abusers admitted for treatment in 2005 smoked the drug. Only IDUs who combine cocaine and heroin (“speedball”) use cocaine intravenously. Younger users tend to smoke cocaine. Polydrug use is also evident in the treatment data. The reported use of marijuana, heroin, and alcohol in addition to cocaine suggests this trend will likely continue.

### Heroin

The preliminary ME data report for 2005 for the St. Louis area showed that heroin was cited in 31 out of 339 deaths, or 9 percent of all cases. While available primarily in the St. Louis and Kansas City areas, heroin is found among small pockets of IDUs who reside in small university towns throughout the State. Heroin consistently appears in all indicators (exhibit 3a). St. Louis has been one of several cities recently experiencing a sharp rise in overdose deaths, many attributed to fentanyl-laced heroin use. Publicly accessible indicators of this problem should be available in the next report. Meanwhile, this problem has gained the attention of prevention, treatment, and law enforcement and is being monitored closely.

While heroin treatment admissions increased dramatically as a proportion of all admissions between 1996 and 2000, they leveled off in 2001–2003. However, admissions increased 43.2 percent from 2004 to 2005. When queried, private treatment programs stated that 25 percent of their admission screens were for heroin abuse, but admission depended on “ability to pay.” Some heroin abusers in need of treatment utilize “private pay” methadone programs. Rapid detoxification, using naltrexone, is still a treatment option at private hospitals, but it is expensive. About 35 percent of heroin admissions were younger than 25 in 2004, compared with only 29 percent in 2005. Of all heroin admissions, intravenous use was the primary method of administration in St. Louis County, but inhalation was more popular among admissions in St. Louis City. The increased availability of higher purity heroin has led to a wider acceptance of the drug in social circles. One of the reasons for its

acceptance is that it does not have to be injected to get the desired effects.

In 2005, males accounted for 60 percent and females represented 40 percent of admissions. Admissions for African-Americans (52.5 percent) were more common than those for White heroin abusers (46.0 percent). Most of those admitted were younger than 35 (62.4 percent). Cocaine and marijuana were the most frequently cited secondary and tertiary drugs of abuse. Most persons entering treatment referred themselves or were referred by the courts.

A steady supply of Mexican heroin remains available. The DEA has made buys of heroin in the region in addition to buys through the DMP. Mexican black tar heroin showed a peak of 24.0 percent purity in 1998; purity dropped to 15.1 percent in 2004. South American (Colombian) heroin, which is also white, is of poorer quality, averaging around 10 percent. Most heroin is purchased in aluminum foil or the number-5 gel capsule (one-tenth-gram packages of heroin in plastic wrap and aluminum foil) for \$10 (exhibit 3b). Recent data suggest that an increase in white heroin availability is being documented in the St. Louis area. For example, preliminary data from the 2005 DMP suggest that more than two-thirds (68.2 percent) of purchases involved white heroin, and the average purity of all samples purchased had increased to 23.1 percent.

Heroin costs were about \$2.93 per milligram for Mexican heroin in the 2004 DMP analysis, an increase of \$1.03 per milligram. The city is an end-user market and is dependent on transportation of the heroin from points of entry into the Midwest. The wholesale price remains at \$250–\$600 per gram. On street corners, heroin sells for \$250 per gram. Most business is handled by cellular phone, which has decreased the seller’s need to have a regular location. Runners continue to be used as “middlemen” between users and sellers to deliver small quantities of drug. In St. Louis and other smaller urban areas, small distribution networks sell heroin.

NFLIS reported that 11.4 percent of the items analyzed in 2005 were heroin. This represents 759 items and is a slight increase over the percentage of items identified as heroin in 2004. The Missouri Department of Corrections probation and parole toxicology data indicated that the Southeast Region had the highest percentage of positive tests for opiates among this population. While heroin is present in this region, it is believed that this high percentage may reflect the abuse of narcotic analgesics in this area. Preliminary data from the department does not permit determina-

tion of the type of opiate at this time. Results for the Eastern Region in 2005 indicated that 18.8 percent of the positive screens in the city of St. Louis probation and parole offices indicated opiate use. In St. Louis County, the percentage of positive screens identifying opiates was similar, at 18.2 percent. Positive screens at the probation and parole offices in the surrounding Missouri counties showed 16.2 percent positive for opiates. It is important to remember that positive screens for opiates might indicate use of heroin, illegally obtained narcotic analgesics, or legitimate use of narcotic analgesics.

Kansas City's heroin supply differs from that of St. Louis. Most heroin in Kansas City is black tar and is typically of poorer quality. The supply is consistent, and a \$10 bag of heroin is available. However, a Geo-Probe conducted in March 2004 produced exhibits with an average purity of 54.6 percent and an average cost of \$0.50 per milligram. Heroin has also become available in the smaller, more rural cities of Springfield and Joplin, each of which has a small IDU population that uses heroin and methamphetamine. At this time, white heroin does not appear to be available in the Kansas City metropolitan area.

### **Other Opiates/Narcotics**

Other opiates represent slightly more than 1 percent of all treatment admissions, but such admissions increased 61.5 percent from 2004 to 2005. Methadone remains available, which is probably a result of prescription abuse as well as patient diversion. NFLIS data for 2005 indicated that oxycodone (0.9 percent) and hydrocodone (0.7 percent) were the two most frequently analyzed opiates following heroin.

OxyContin (a long-lasting, time-release version of oxycodone) abuse remained a concern for treatment providers and law enforcement officials. Prescription practices are closely monitored for abuse, and isolated deaths have been reported, but no consistent reports are available on the magnitude of this potential problem. OxyContin costs \$40 for an 80-milligram tablet on the street (exhibit 3b). The use of hydromorphone (Dilaudid) remained common among a small population of White chronic addicts. The drug costs \$30–\$75 per 4-milligram pill.

### **Marijuana**

Marijuana treatment admissions more than doubled from 1997 (1,573 admissions) to 2001 (3,210 admissions), but they have decreased a bit probably due to budget cuts to treatment programs more than changes in use. Admissions in 2005 accounted for

24.0 percent of all admissions in the St. Louis region (exhibit 3a) and represented an increase of 7.5 percent over 2004. Marijuana, viewed by young adults as acceptable to use, is often combined with alcohol, and alcohol was identified as the most popular secondary drug of abuse (29.9 percent of admissions). Almost two-thirds of persons admitted to treatment were referred by the courts. The 25-and-younger age group accounted for 58.1 percent of primary marijuana treatment admissions in 2005. Some of the prevention organizations report a resurgence in marijuana popularity and a belief by users that it is not harmful. Prevention programs are targeting this belief through education.

Because of the heroin, cocaine, and methamphetamine abuse problems and the recent “club drug” scare in St. Louis, law enforcement officials have focused less attention on marijuana abuse. Limited resources require establishing enforcement priorities. Often, probation for marijuana offenders requires participation in treatment for younger users who do not identify themselves as drug dependent. In focus groups with African-American adults from various social groups, more than one-half identified regular use of marijuana but did not identify this use as problematic. This ethnographic information supports the idea of cultural acceptance of marijuana use. A college town made possession of small quantities of marijuana a misdemeanor, further supporting these beliefs.

Marijuana is available from Mexico or domestic indoor growing operations. Indoor production makes it possible to produce marijuana throughout the year. In addition to the Highway Patrol Pipeline program, which monitors the transportation of all types of drugs on interstate highways, Operations Green Merchant and Cash Crop identify and eradicate crops. Much of the marijuana grown in Missouri is shipped out of the State. NFLIS reported that 39.7 percent of the drug items analyzed in 2005 were cannabis, slightly lower than the proportion in 2004.

The Missouri Department of Corrections probation and parole toxicology data indicated that the Central Region had the highest percentage of positive tests for marijuana among this population. Results for the Eastern Region indicated that the percentage of positive screens indicating marijuana use at probation and parole offices was relatively consistent at the offices in the city of St. Louis (60.9 percent of positive screens), in St. Louis County (57.1 percent), and in the surrounding Missouri counties (52.9 percent). Marijuana was the most frequently identified substance statewide.

## Stimulants

Methamphetamine, 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 huge problem in rural communities, with a focus on “mom and pop” box labs and intergenerational use of the drug.

Methamphetamine (“crystal” or “speed”) was found at very low levels in city indicators in 1995, but reported use has slowly increased over the last 9 years. In rural areas, methamphetamine appeared regularly in the treatment data, but methamphetamine has been identified as a problem in all parts of the State. The urban, street-level distributors in St. Louis deal in cocaine, so methamphetamine use is not as widespread in the St. Louis area; this could indicate differences in dealing networks and access to locally produced drugs (“mom and pop” local production). However, an increase in availability and purity of Mexican methamphetamine and a growth in Hispanic groups in the St. Louis metropolitan area may change this trend. If pseudoephedrine-access laws are effective, these sources may replace “homegrown” supplies. Methamphetamine use is reported in the gay male and club communities in the city. An increase in treatment admissions may signal this change. Traditionally, cocaine and methamphetamine use have been split along racial lines in the State. The number of methamphetamine treatment admissions in St. Louis was 604 (4.8 percent of total admissions) in 2005, an increase of 15 percent from 2004. In rural treatment programs, methamphetamine was the drug of choice after alcohol. Statewide, treatment admissions increased 23 percent from 2004 to 2005.

In 2005, the percentage of males entering treatment was slightly lower than the percentage of females (49.8 percent versus 50.2 percent) (exhibit 3a). Admissions for African-Americans were almost nonexistent (1.4 percent), as most admissions were White methamphetamine abusers (98.3 percent). Many of those admitted were age 26–34 (38.4 percent), reflecting a younger population of users than that of cocaine and heroin abusers entering treatment but slightly older than the most frequently reported age group entering for marijuana abuse. Marijuana and alcohol were the most frequently cited secondary and tertiary drugs of abuse. Persons entering treatment were typically referred by the courts or self-referred.

The Midwest Field Division of the DEA decreased its cleanup of clandestine methamphetamine labs after training local enforcement groups; 2,788 incidents were reported for 2004 by the Missouri State Highway Patrol. Data for 2005 indicate that recent legisla-

tion has had an impact on the number of clandestine lab incidents, which fell to approximately 2,252. This decrease in incidents was attributed to Senate Bill 10, the pseudoephedrine control law signed into law in June and in effect on July 14, 2005. During the first full month of implementation, methamphetamine incidents (chemicals, glassware, dumpsites, and operational labs) decreased 54 percent compared with the same month in 2004. However, the number of lab incidents had started to fall prior to implementation of Senate Bill 10. This may be related to the increased availability of higher potency ice imported from Mexico and the Southwestern region of the country. The intensity of law enforcement efforts is based on the availability of funds for local police departments to clean up box labs under Community Oriented Policing Service (COPS) funding. Thefts of anhydrous ammonia continued to be identified as an issue in rural areas.

In the current methamphetamine scene, Hispanic traffickers, rather than the old network of motorcycle gangs, are the predominant distributors. Shipments from “super labs” in the Southwest are trucked in via the interstate highway system. This network is in contrast to the local “mom and pop” labs that produce personal quantities for family and friends. These local labs tend to use the Nazi method of production, with an output of 60 percent of the quantity of the starting products, although the red phosphorus method has recently been seen more frequently. Purity of the drugs produced by these labs and the amount of finished product depends on the experience/attentiveness of the “cooker” but tends to be higher (greater than 80 percent). Most of the available methamphetamine is produced in Mexico and trafficked through the Hispanic traffickers, with less pure methamphetamine obtained through this source. While much of the law enforcement resources and personnel are directed at the local production, most of the methamphetamine that is available in the area comes through these Hispanic organizations. As the purity increases among the methamphetamine obtained from these groups and precursor drugs are less available, less local production may be seen. Some crystallized methamphetamine has been noted in the local market, usually indicating increased purity in the product.

The term “ice” has been applied to all methamphetamine with a crystalline appearance. Methamphetamine sold for \$700–\$1,300 per ounce in St. Louis and for as little as \$100–\$120 per gram in some areas (exhibit 3b). Methamphetamine was represented in less than 1 percent of the NFLIS analyses in 2005, as was pseudoephedrine.



The Missouri Department of Corrections probation and parole toxicology data indicated that the Southwest Region had the highest percentage of positive tests for amphetamines among this population. Results for the Eastern Region are indicative of the diversity of amphetamine use in the area, with a lower percentage of positive screens identifying amphetamine in the city of St. Louis (2.2 percent) and a higher percentage of positive screens (21.2 percent) identifying the drug in the five Missouri counties surrounding the St. Louis City and County. While the data do not distinguish among types of amphetamines, most of the amphetamine found in Missouri is in the form of methamphetamine.

Use of methamphetamine and its derivatives has become more widespread among high school and college students, who do not consider these drugs as dangerous as others. Because methamphetamine is so inexpensive and appeals to a wide audience, it is likely that its use will continue to spread.

### **Depressants**

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

### **Hallucinogens**

Over the years, lysergic acid diethylamide (LSD) has sporadically reappeared in local high schools and rural areas. Blotters sell for \$5–\$7 per 35-microgram dose (exhibit 3b).

Phencyclidine (PCP) has been available in limited quantities in the inner city and has generally been used as a dip on marijuana joints. While PCP is not seen in quantity, it remains in most indicator data and police exhibits and as a secondary drug in ME data. Few items (0.12 percent) were identified in 2005 as PCP by NFLIS. The Missouri Department of Corrections probation and parole toxicology data indicated that the Western Region had the highest percentage of positive tests for PCP among this population. Results for the Eastern Region indicated that probation and parole offices in the city of St. Louis reported 49 positive screenings for PCP, those in St. Louis County reported 19 positive results, and those in the surrounding Missouri counties reported only 6 positive screenings for PCP in 2005. This contrasts with

the 249 positive PCP screens in the Kansas City regional probation and parole offices in 2005. Most of the users of this drug in the inner city are African-American.

### **Club Drugs**

MDMA accounted for less than 3 percent of items identified in the 2005 NFLIS for St. Louis. However, the 191 items analyzed ranked fourth among all substances analyzed in St. Louis area laboratories. Reports of other club drugs were almost non-existent; for example only three items were identified as ketamine in 2005. MDMA is less available at dance parties and costs \$20–\$30 per tablet. Most of the reports about MDMA abuse are anecdotal or are part of a polydrug user's history.

## **INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

### **HIV**

HIV seropositivity among IDUs remained low in St. Louis. While the predominant number of cases occurs among men who have sex with men (MSM), the largest increase was found among young African-American females, who were infected through heterosexual or bisexual contact, and young homosexual African-American males. As a result, increased specialized minority prevention efforts have been initiated.

Of the total 6,672 persons living with HIV disease identified through June 2004, 5 percent were IDUs, and 5 percent involved men who have sex with men and are also IDUs (MSM/IDUs) (exhibit 4). The number of infected African-Americans was increasing disproportionately among males and females.

### **HIV Research**

Saint Louis University has continued research on HIV prevention vaccines. Most of the prevention vaccine trials have been Phase I trials in low-risk individuals, and MSM and high-risk women in the United States and high-risk heterosexuals in the Caribbean are being recruited for a new expanded Phase II trial in 2005. Another Phase II trial is slated to begin in 2006.

### **STDs and Hepatitis C**

A resurgence of syphilis among MSM has led to increased surveillance and targeted prevention programs to this population. Rates of gonorrhea and chlamydia remain stable and high in the urban STD

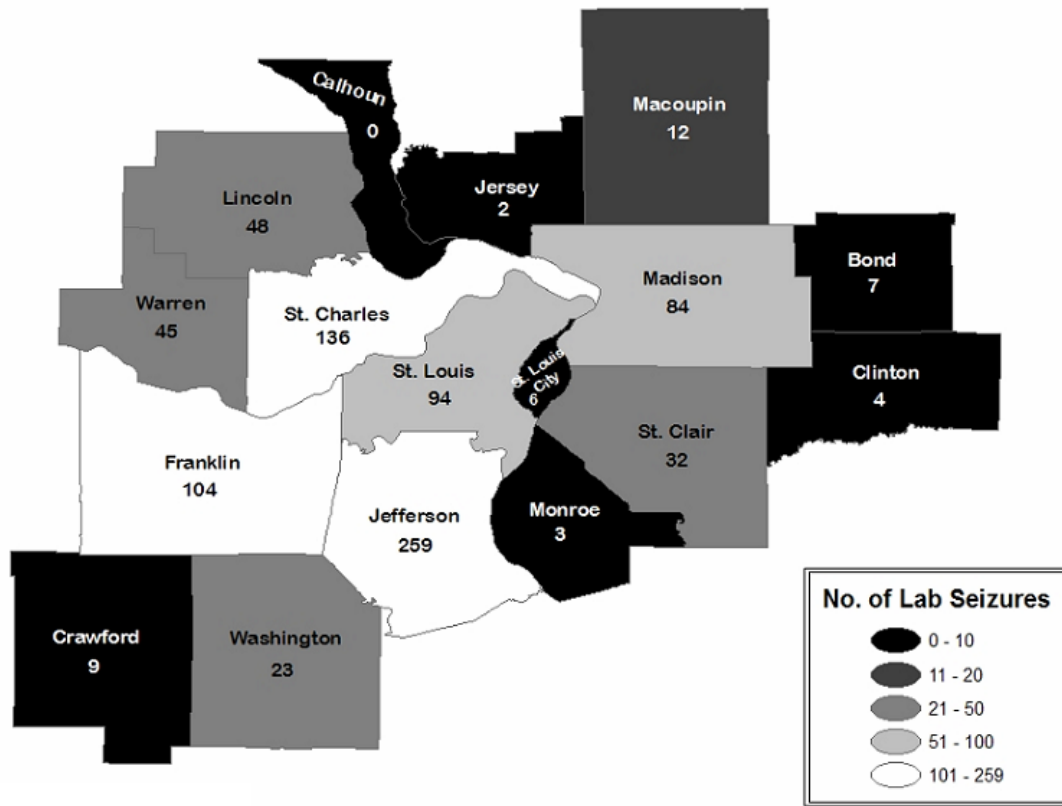
clinics. St. Louis ranks third in the country for gonorrhea, with cases remaining at approximately 1,000 per year, and second for chlamydia. HIV and syphilis/gonorrhea rates are high in neighborhoods known to have high levels of drug abuse, underscoring the concept of assortative mixing in cohorts. Inconsistent reporting of hepatitis C has made estimation of the problem and tracking of hepatitis C cases difficult.

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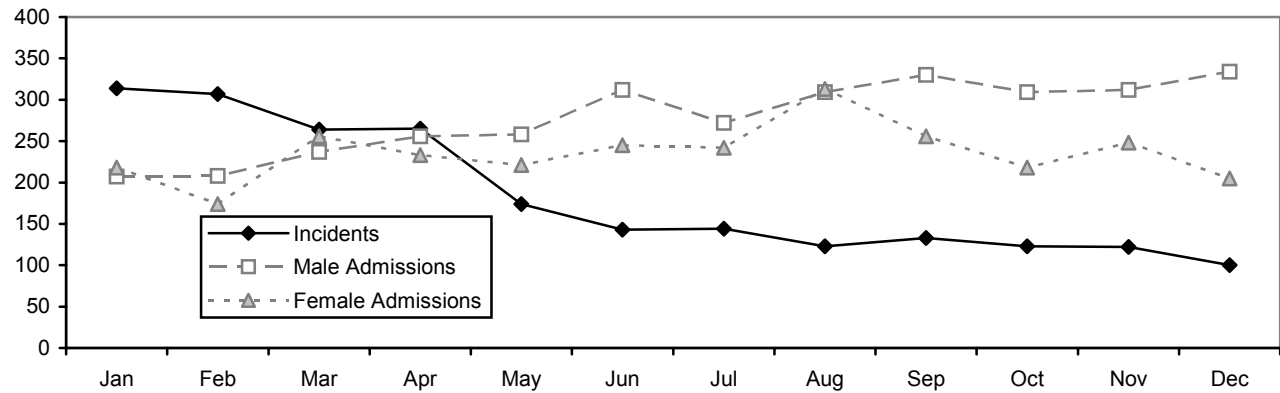
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**Exhibit 1. Methamphetamine Lab Seizures in the St. Louis MSA: 2005**



SOURCE: Missouri State Highway Patrol and Office of the Illinois Attorney General (Aubrey Grant, Program Specialist/Policy Bureau)

**Exhibit 2. Methamphetamine Incidents and Male and Female Treatment Admissions, by Month: 2005**



SOURCE: Missouri State Highway Patrol and Missouri Division of Alcohol and Drug Abuse, Treatment Episode Data Set reports for 2005

**Exhibit 3a. Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 1996–2005**

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine
<b>Number of Deaths by Year</b>				
1996	93	51	NA <sup>1</sup>	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	—
<b>Treatment Admissions Data</b>				
Percent of All Admissions (2004)	29.1	10.4	25.0	4.6
Percent of All Admissions (2005)	27.8	13.3	24.0	4.8
<b>Gender (%) (2005)</b>				
Male	58.2	60.0	73.0	49.8
Female	41.8	40.0	27.0	50.2
<b>Age (%) (2005)</b>				
12–17	1.2	0.8	24.6	2.6
18–25	6.9	28.3	33.5	27.0
26–34	19.8	33.3	25.2	38.4
35 and older	72.1	37.6	16.7	32.0
<b>Race/Ethnicity (%) (2005)</b>				
White	27.9	46.0	39.3	98.3
African-American	71.4	52.5	59.4	1.4
Hispanic	1.7	1.7	1.5	1.2
<b>Route of Administration (%) (2005)</b>				
Smoking	91.0	1.8	97.1	54.5
Intranasal	5.9	38.1	0.3	12.4
Injecting	1.6	58.1	0.2	28.5
Oral/other	1.5	2.0	2.4	4.6

<sup>1</sup>NA=Not applicable.

SOURCES: St. Louis City/County Medical Examiner's Office; TEDS database

**Exhibit 3b. Other Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 2002–2005**

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine and Other Drugs
Multisubstance Combinations	Older users combine with heroin, alcohol	Older users combine with cocaine, alcohol	Alcohol	Marijuana commonly used in combination, alcohol use common
Market Data (2004)	Powder \$100–\$125/g, 70% pure; Crack \$20/rock, 50–90% pure; 8-ball \$300	\$20/cap or foil; \$10 per number-5 gel capsule; \$3.17/mg pure—depending if MBT, SA, SWA; \$250–\$600/g, 13.9–23.2% pure	Sinsemilla \$700–\$1,800/lb, 20% THC; Imported \$2,000–\$4,000/lb	Methamphetamine \$100–\$120/g, Mexican (20–30%) and local (70–80% pure); hydromorphone \$30–\$75/4-mg pill; LSD blotters \$5–\$7/35 microgram, OxyContin \$40 per 80-mg pill
Qualitative Data	Readily available, urban choice	Younger users, 1/3 younger than 25, growing presence	Readily available, younger users in treatment	Rural/suburban users of amphetamine
Other Data of Note	N/R <sup>1</sup>	Primarily Mexican black tar although growing availability of white heroin; young users smoke/snort	N/R	Methamphetamine lab seizures decreasing; producers are super-labs—controlled by Hispanic groups; mom and pop labs

<sup>1</sup>N/R=Not reported.

SOURCES: DEA; client ethnographic information

**Exhibit 4. Persons Living with HIV Disease in St. Louis Metropolitan Area by Exposure Category, Gender, Race/Ethnicity, and Age: Year-to-Date and Cumulative Totals Reported Through June 2004**

Category	HIV-Positive Test Results			
	Jan 2004–June 2004		Cumulative Through June 2004	
	Number	Percent	Number	Percent
Exposure Category				
MSM	61	50.0	4,583	70.0
IDU	6	5.0	301	5.0
IDU/MSM	3	2.0	319	5.0
Hemophilia	0	0.0	58	1.0
Heterosexual	12	10.0	920	14.0
Blood transfusion	0	0.0	34	0.2
Perinatal	0	0.0	41	1.0
Unknown	41	33.0	416	6.0
Total	123		6,672	
Gender and Race/Ethnicity				
Male				
White	40	33.0	2,914	45.0
African-American	62	51.0	2,582	40.0
Hispanic	1	0.0	79	1.0
Other	1	0.0	19	0.0
Unknown	0	0	208	3.0
Female				
White	4	3.0	170	2.0
African-American	14	12.0	671	10.0
Hispanic	2	0.0	15	0.0
Other	0	0.0	13	0.0
Age				
12 and younger	0	0.0	53	1.0
13–19	5	4.0	160	2.4
20–29	39	32.0	1,644	25.2
30–39	30	24.0	2,799	43.0
40–49	41	33.0	1,332	20.4
50 and older	8	7.0	522	8.0
Unknown	0	0	162	2.0
Total	123		6,672	

SOURCE: St. Louis Metropolitan AIDS Program

# Drug Abuse Patterns and Trends in San Diego County, California

Robin Pollini, Ph.D., M.P.H., and Steffanie Strathdee, Ph.D.<sup>1</sup>

## ABSTRACT

*Methamphetamine continued to be the primary drug of abuse in San Diego County in 2005. Methamphetamine accounted for almost one-half (49.2 percent) of drug treatment admissions (excluding alcohol) in the county in 2005 and was the most commonly cited drug in DAWN ED reports involving major illicit drugs (32.6 percent). In fact, the number of unweighted ED reports for methamphetamine (n=1,477) was more than double the number of reports for both cocaine (694) and heroin (616). More than one-half (51 percent) of female arrestees tested positive for methamphetamine in 2005, as did 44 percent of male and 21 percent of juvenile arrestees. Primary cocaine users accounted for 8.2 percent of illicit drug treatment admissions. As with methamphetamine, more female than male arrestees tested positive for cocaine (15 vs. 11 percent). However, stimulant treatment admissions varied substantially by race/ethnicity. Of patients admitted for primary methamphetamine abuse in 2005, 52.8 percent were White, 5.8 percent were African-American, and 30.2 percent were Hispanic; in contrast, 58.1 percent of cocaine admissions were African-American, 27.6 percent were White, and 11.2 percent were Hispanic. Heroin accounted for almost one-quarter (23.8 percent) of primary treatment admissions, excluding alcohol. Most heroin users (82.4 percent) cited injection as their primary route of administration, accounting for 72.4 percent of all primary injection admissions in San Diego County in 2005. Overall, the number of treatment admissions for all drugs of abuse has been steadily declining since 2002, with the exception of non-heroin opiates, for which admissions have increased 26.1 percent. Sources in San Diego County suggest that this is likely attributable to decreases in public funding for drug treatment services rather than decreases in use and abuse of these drugs.*

<sup>1</sup> The authors are affiliated with the School of Medicine, University of California – San Diego.

## INTRODUCTION

### Area Description

More than 2.8 million people resided in San Diego County in 2000; 55.0 percent of the county's residents were White, 26.7 percent were Hispanic, 9.1 percent were Asian, and 5.5 percent were African-American (exhibit 1). By 2005, the population had grown to an estimated 3.1 million. Whites made up a smaller proportion of the population in 2005 (51.6 percent), while the proportion of Hispanics and Asians increased to 28.8 percent and 10.3 percent, respectively. The median age of county residents in 2005 was 34. Household income (adjusted for inflation) increased by 10.2 percent between 2000 and 2005, from \$47,360 to \$52,192.

San Diego shares 80 miles of border with Mexico and, along with neighboring Imperial County, forms a principal transshipment zone for drugs smuggled from Mexico, including cocaine, marijuana, heroin, and methamphetamine. Methamphetamine continues to be the major drug of concern in the area, and it now accounts for nearly one-half of all drug treatment admissions in San Diego County. Methamphetamine also is the most common drug detected among adult arrestees in San Diego County and reported in drug-related emergency department cases.

### Data Sources

Data for this paper were provided by the sources shown below:

- **Forensic laboratory data** were provided by the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA), for 2005. There were 18,850 drug items analyzed by county laboratories in 2005.
- **Treatment data** were provided by the California Alcohol and Drug Data System (CADDSS). There were 13,119 admissions in 2005, of which 2,576 were primary alcohol admissions.
- **Arrestee data** for juveniles and adults were obtained from 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. In 2005, 807 adult and 178 juvenile arrestees completed interviews for the SAM program, and 96 percent and 93 percent, respectively, provided a valid urine sample.

- **Emergency department (ED) data** for calendar year 2005 were accessed from the Drug Abuse Warning Network (DAWN) *Live!*, a restricted-access online query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). The completeness of data reported by participating EDs varied by month (see exhibit 2). The 2005 data for San Diego represent 4,531 reports of illicit drugs, as well as reports of non-medical use of selected prescribed drugs ( $n=4,133$ ) and data on alcohol-related visits ( $n=1,906$ ). All DAWN cases are reviewed for quality control and, based on this review, may be corrected or deleted; therefore, the data presented in this paper are subject to change. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. Drug reports exceed the number of ED visits, since a patient may report use of multiple drugs (up to six drugs and alcohol). The DAWN *Live!* data are unweighted and, thus, are not statistical estimates for the reporting area. A full description of the DAWN data system can be found at <http://dawninfo.samhsa.gov/>.
- **Drug price and purity data** are from the DEA's San Diego and Imperial County Regional Narcotics Information Network, based on available data for 2005.
- **Acquired immunodeficiency syndrome (AIDS) data and human immunodeficiency virus (HIV) data** were taken from the San Diego County Health and Human Services Agency (HHSA), "HIV/AIDS Epidemiology Report 2006."

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

Of drug items analyzed by forensic labs in 2005, 13.5 percent were cocaine items (exhibit 3), compared with 14.3 percent in 2004.

Treatment admissions for primary cocaine abuse accounted for 8.2 percent of admissions in 2005, a 16.0-percent reduction from 2004 and a 43.6-percent reduction from 2002 (exhibit 4). A majority of those admitted for primary cocaine abuse in 2005 were male (66.4 percent), African-American (58.1 percent), and age 35 or older (74.1 percent) (exhibit 5). Most (82.8 percent) cited smoking as their primary route of administration (exhibit 6).

Among arrestees, 11 percent of men and 15 percent of women tested positive for cocaine in 2005 (exhibit 7). Since 2000, the proportion of males testing posi-

tive for cocaine has remained relatively stable, ranging from 11 to 15 percent, while the proportion of females has varied from a high of 26 percent in 2000 to a low of 15 percent in 2003 and 2005. The reasons for this variability among female arrestees are unclear. Six percent of juveniles tested positive for cocaine in both 2004 and 2005.

There were 694 unweighted ED reports of cocaine in 2005 (representing 15.3 percent of illicit drug reports) (exhibit 8). These reports occurred predominantly among male patients (66.7 percent) and those age 35 or older (57.2 percent). Nearly one-half (48.0 percent) were White, and 11.7 percent were "not documented" in terms of race/ethnicity.

Cocaine prices in San Diego County ranged from \$10 for one-tenth gram to \$60–\$120 per gram in 2005 (exhibit 9). The DEA reported that ounce/kilogram quantities averaged 70–91 percent pure.

##### Heroin

Only 2.2 percent of drug items analyzed by forensic labs in 2005 were heroin items (exhibit 3).

Primary heroin admissions accounted for 23.8 percent of illicit drug treatment admissions in San Diego County in 2005 (exhibit 4). Although primary heroin admissions remained relatively stable as a proportion of overall treatment admissions in recent years, the number of heroin admissions has declined steadily from 4,317 in 2002 to 2,507 in 2005—a reduction of 41.9 percent. One-half (50.5 percent) of patients admitted for primary heroin abuse in 2005 were White, and 39.8 percent were Hispanic; only 4.7 percent were African-American (exhibit 5). The majority were also male (72.2 percent) and age 35 or older (59.2 percent). Injection was by far the most common route of administration (82.4 percent), and heroin admissions accounted for three-quarters (72.4 percent) of the 2,844 primary injection admissions (exhibit 6).

Five percent of male arrestees and 9 percent of female arrestees tested positive for heroin in 2005, representing a slight decrease and an increase, respectively, since 2000 (exhibit 7). Two percent of juvenile arrestees tested positive for heroin in 2005, compared with 1 percent in 2004.

There were 616 unweighted ED reports for heroin in 2002, representing 13.6 percent of illicit drug reports (exhibit 8). Heroin patients were predominantly male (70.0 percent), White (54.1 percent), and age 35 or older (67.5 percent).

In 2005, the price of black tar heroin in San Diego County was \$40–\$100 per gram, with purity ranging from a low of 11 percent to a high of 90 percent (exhibit 9). The price of powder heroin was estimated at \$80–\$100 per gram.

### Other Opiates/Narcotics

In 2005, 367 of the forensic lab items analyzed in San Diego County were categorized as “other opiates” (exhibit 3). These included hydrocodone (1.0 percent), oxycodone (0.3 percent), codeine (0.2 percent), and morphine (0.1 percent). Drug treatment admissions for opiates excluding heroin represented only a small proportion (2.2 percent) of admissions in San Diego County in 2005, but this is the only drug category in which increases in the number of admissions have been observed since 2002—an increase of 26.1 percent (exhibit 4). Patients admitted for primary abuse of other opiates are more likely than other patients to be female (45.3 percent) and White (85.3 percent) (exhibit 5). There were 955 unweighted ED reports for opiates other than heroin in 2005, exceeding all other drug categories except for methamphetamine ( $n=1,477$ ) and marijuana ( $n=988$ ) (exhibit 8). Of the opiates/opioids reports, the most frequently reported substance was hydrocodone (30.6 percent), followed by oxycodone (14.9 percent). The DEA estimated the street value of hydrocodone (Vicodin) at \$3 per pill in 2005. There were no price estimates available for oxycodone.

### Marijuana

Forty-five percent of the 18,850 drug items analyzed by forensic labs in 2005 were cannabis.

There were 1,599 primary treatment admissions for marijuana in 2005, representing 15.2 percent of all primary illicit drug treatment admissions (exhibit 4). The number of primary marijuana treatment admissions has decreased by more than one-half (56.5 percent) since 2002. The majority of patients admitted for primary marijuana abuse in 2005 were male (73.1 percent); 39.3 percent were White, 31.7 percent were Hispanic, and almost two-thirds (65.7 percent) were younger than 26 (exhibit 5).

Among adult arrestees, 34 percent of men tested positive for marijuana—a decrease of 11 percent since 2000 (exhibit 7). In contrast, the proportion of female arrestees testing positive increased 15 percent, from 27 percent in 2000 to 31 percent in 2005. The proportion of juveniles testing positive also rose slightly, from 42 percent in 2000 to 44 percent in 2005.

More than one-fifth (21.8 percent) of the unweighted ED reports for illicit drugs in 2005 involved marijuana (exhibit 8). Of these, the majority were male (65.3 percent), White (54.8 percent), and younger than 30 (59.4 percent).

The DEA estimated the 2005 price of marijuana in San Diego County at \$75–\$100 per ounce.

### Methamphetamine

Methamphetamine use is a major problem in San Diego County; the drug surpasses all other drugs in almost every indicator category. Methamphetamine accounted for 32.5 percent of drug items analyzed by forensic labs in 2005 (exhibit 3).

Although the overall number of drug treatment admissions for primary methamphetamine abuse decreased 28.9 percent from 2002 to 2005, these admissions accounted for an increasingly large proportion of overall admissions. In 2005, 49.2 percent of all drug treatment admissions in San Diego County were for primary methamphetamine abuse, an increase from 42.2 percent in 2002 (exhibit 4). Patients who entered treatment for primary methamphetamine use in 2005 were predominantly male (59.8 percent) and White (52.8 percent), and 42.1 percent were age 35 or older (exhibit 5). The primary route of administration was smoking (70.8 percent) (exhibit 6).

Slightly more than one-half (51 percent) of female arrestees in San Diego County tested positive for methamphetamine in 2005, an increase of 21 percent over the previous year and 76 percent since 2000 (exhibit 7). The proportion of male arrestees testing positive for methamphetamine has also been increasing, albeit at a slower rate than among women. Forty-four percent of men tested positive for methamphetamine in 2005, just slightly above the 43 percent reported in 2003 and an increase of 57 percent since 2000. Rates of methamphetamine detection have risen alarmingly among juvenile arrestees; 21 percent tested positive for methamphetamine in 2005, up 91 percent since 2000.

There were 1,477 unweighted ED reports for methamphetamine in 2005 (representing 32.6 percent of illicit drug reports)—more than double the number of cocaine or heroin mentions (exhibit 8). The majority of methamphetamine users treated in the ED were male (67.2 percent) and younger than 35 (52.1 percent); the majority were White (55.1 percent), followed by Hispanic (15.4 percent) and African-American (7.8 percent). One-fifth of the methamphetamine reports had race/ethnicity that was “not documented.”



The DEA estimated the 2005 price of methamphetamine at \$20 per one-quarter gram and \$40–\$50 per gram. Gram purity levels averaged 50–95 percent, and ounce purity levels were 54–97 percent.

### Other Drugs

Drugs in the “other” category include club drugs, benzodiazepines and other prescription drugs, and drugs not otherwise specified. These drugs accounted for only 1.3 percent of primary drug treatment admissions in the first half of 2005 (exhibit 4).

Methylenedioxymethamphetamine (MDMA) was the most common club drug detected in forensic lab items ( $n=130$ ) and unweighted ED reports ( $n=37$ ) in 2005. The estimated price per pill was \$25–\$30.

Phencyclidine (PCP) accounted for 23 forensic items and 47 unweighted ED reports in 2005.

Benzodiazepines accounted for 1.4 percent ( $n=263$ ) of forensic items in FY 2005. The most common of these were diazepam (34.2 percent), clonazepam (31.9 percent), and alprazolam (27.4 percent). There were 701 unweighted ED reports for benzodiazepines in 2005.

### Alcohol

There were 1,906 primary alcohol treatment admissions in San Diego County in 2005. Eighty-eight of these admissions (4.6 percent) were alcohol-only admissions among patients younger than 21.

## INFECTIOUS DISEASES RELATED TO DRUG ABUSE

### AIDS

From 1981 through December 2005, there were 12,603 AIDS cases reported in San Diego County; 323 of these cases were reported in 2005. The majority of cases reported since 1981 have been among White males age 30–39 who have sex with men; however, the proportions of diagnoses among Blacks, Hispanics, women, people age 40 or older, and injection drug users are slowly increasing. The most common route of transmission among male AIDS cases is having sex with men (79 percent), followed by having sex with men and injection drug use (11 percent), and injection drug use only (7 percent). The proportion of cases attributed to injection drug use

differs by race/ethnicity. Twenty-six percent of cases diagnosed among Blacks between 2001 and 2005 were attributed to injection drug use or having sex with men and injection drug use, compared with 21 percent among Whites and 16 percent among Hispanics. Among females, 36 percent of AIDS cases were attributed to injection drug use, 21 percent were attributed to heterosexual contact with an injection drug user, and 31 percent were attributed to other heterosexual contact. Racial/ethnic distribution of injection drug use cases among women differed substantially from men; injection accounted for 42 percent of AIDS cases among Whites, 28 percent among Blacks, and 16 percent among Hispanics. Among Hispanics, the majority of AIDS cases diagnosed between 2001 and 2005 were among the foreign born (73 percent of male cases and 75 percent of female cases), compared with less than one-half of cases diagnosed between 1986 and 1990.

### HIV

From July 2002 through December 31, 2005, there were 4,898 adult/adolescent HIV cases reported in San Diego County. Approximately 10 percent of these cases were among women—a smaller proportion than in California overall (14 percent) and in the United States (30 percent). Twenty percent of female cases were attributed to injection drug use, 13 percent were attributed to sex with an injection drug user, and 49 percent were attributed to other heterosexual contact. White women have the highest proportion of HIV cases attributed to injection drug use (32 percent), followed by Black women (20 percent) and Latinas (8 percent). In contrast, 80 percent of HIV cases among men are attributed to having sex with men, followed by 7 percent to having sex with men and injection drug use, and 4 percent to injection drug use alone. The highest proportion of cases attributed to injection drug use are among Black males (9 percent), followed by White men and Latinos (4 percent each).

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**Exhibit 1. Population Demographics in San Diego County, by Percent: 2000 and 2005**

Characteristic	2000 (N=2,813,833)	2005 (N=3,051,280)
Race/Ethnicity		
White	55.0	51.6
Black or African-American	5.5	5.3
Asian/Pacific Islander	9.1	10.3
American Indian	0.5	0.5
Other race	3.1	3.4
Hispanic/Latino (of any race)	26.7	28.8
Median Age (years)	(33.2)	(34.0)
Median Household Income (adjusted) (\$)	(\$47,360)	(\$52,192)

SOURCE: San Diego Association of Governments Population and Housing Estimates

**Exhibit 2: DAWN ED Sample and Reporting Information: January–December 2005**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100 %	50–89 %	<50 %	
17	17	17	7-9	0-2	0	7-8

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 3. Number and Percentage of Selected Items Analyzed by Forensic Laboratories in San Diego County: 2005**

Drug	Number	Percent
Cocaine	2,546	13.5
Heroin	420	2.2
Other Opiates	367	1.9
Cannabis	8,436	44.8
Methamphetamine	6,119	32.5
Amphetamine	11	0.1
Benzodiazepines	263	1.4
MDMA/MDA	148	0.8
Total	18,850	100.0

SOURCE: NFLIS, DEA

**Exhibit 4. Numbers and Percentages of Primary Drug Treatment Admissions in San Diego County, Excluding Alcohol Admissions: 2002–2005**

Drug		2002 (%)	2003 (%)	2004 (%)	2005 (%)	% Change 2002–2005
Cocaine	<i>n</i> (%)	1,524 (8.8)	1,185 (8.2)	1,024 (8.8)	860 (8.2)	-43.6
Heroin	<i>n</i> (%)	4,317 (24.8)	3,092 (21.5)	2,910 (24.9)	2,507 (23.8)	-41.9
Other Opiates	<i>n</i> (%)	184 (1.1)	218 (1.5)	224 (1.9)	232 (2.2)	26.1
Marijuana	<i>n</i> (%)	3,676 (21.2)	3,106 (21.6)	2,050 (17.5)	1,599 (15.2)	-56.5
Methamphetamine	<i>n</i> (%)	7,330 (42.2)	6,545 (45.5)	5,304 (45.4)	5,211 (49.2)	-28.9
All Other Drugs	<i>n</i> (%)	345 (2.0)	245 (1.7)	180 (1.5)	134 (1.3)	-61.2
<b>Drug Total</b>	<b><i>N</i></b> <b>(%)</b>	<b>17,376</b> <b>(100.0)</b>	<b>14,391</b> <b>(100.0)</b>	<b>11,692</b> <b>(100.0)</b>	<b>10,543</b> <b>(100.0)</b>	<b>-39.3</b>

SOURCE: California Alcohol and Drug Data System

**Exhibit 5. Demographics of Clients Admitted to Treatment in San Diego County, by Drug, Number, and Percent: 2005**

Demographic		Cocaine (%)	Heroin (%)	Other Opiates (%)	Marijuana (%)	Methamphetamine (%)	All Other (%)	Total (%)
Total Admissions	<i>N</i> (%)	860 (8.2)	2,507 (23.8)	232 (2.2)	1,599 (15.2)	5,211 (49.4)	134 (1.3)	10,543 (100.0)
Gender								
Male	<i>n</i> (%)	571 (66.4)	1,811 (72.2)	127 (54.7)	1,169 (73.1)	3,118 (59.8)	81 (60.4)	6,877 (65.2)
Female	<i>n</i> (%)	289 (33.6)	696 (27.8)	105 (45.3)	430 (26.9)	2,093 (40.2)	53 (39.6)	3,666 (34.8)
Race/Ethnicity								
White (non-Hispanic)	<i>n</i> (%)	237 (27.6)	1,265 (50.5)	198 (85.3)	629 (39.3)	2,754 (52.8)	51 (38.1)	5,134 (48.7)
African-American	<i>n</i> (%)	500 (58.1)	119 (4.7)	6 (2.6)	327 (20.5)	303 (5.8)	35 (26.1)	1,290 (12.2)
American Indian	<i>n</i> (%)	7 (0.8)	48 (3.8)	* (0.0)	20 (1.3)	79 (1.5)	* (0.0)	154 (1.5)
Asian/Pacific Islander	<i>n</i> (%)	8 (0.9)	25 (10.0)	4 (1.7)	69 (4.3)	358 (6.9)	8 (6.0)	472 (4.5)
Hispanic	<i>n</i> (%)	96 (11.2)	999 (39.8)	22 (9.5)	507 (31.7)	1,576 (30.2)	35 (26.1)	3,235 (30.7)
Age								
Younger than 17	<i>n</i> (%)	17 (2.0)	10 (0.4)	* (0.0)	659 (41.2)	203 (3.9)	18 (13.4)	907 (8.6)
18–25	<i>n</i> (%)	65 (7.6)	458 (18.3)	45 (19.4)	391 (24.5)	1,243 (23.9)	26 (19.4)	2,228 (21.1)
26–34	<i>n</i> (%)	141 (16.4)	555 (22.1)	62 (26.7)	291 (18.2)	1,571 (30.1)	33 (24.6)	2,653 (25.2)
Older than 35	<i>n</i> (%)	637 (74.1)	1,484 (59.2)	124 (53.4)	258 (16.1)	2,194 (42.1)	57 (42.5)	4,754 (45.1)

\* Indicates  $n \leq 3$ .

SOURCE: California Alcohol and Drug Data System

**Exhibit 6. Routes of Drug Administration for Clients Admitted to Treatment in San Diego County, by Drug, Number, and Percent: 2005**

Route	Cocaine (%)	Heroin (%)	Other Opiates (%)	Marijuana (%)	Methamphetamine (%)	All Other (%)	Total (%)
Oral <i>n</i> (%)	* (0.0)	36 (1.4)	192 (82.8)	27 (1.7)	65 (1.2)	64 (47.8)	384 (3.6)
Smoking <i>n</i> (%)	712 (82.8)	293 (11.7)	* (0.0)	1,559 (94.5)	3,689 (70.8)	59 (44.0)	6,312 (60.0)
Inhalation <i>n</i> (%)	114 (13.3)	103 (4.1)	17 (7.3)	12 (0.8)	712 (13.7)	7 (5.2)	965 (9.2)
Injection <i>n</i> (%)	30 (3.5)	2,058 (82.4)	19 (8.2)	0 (0.0)	733 (14.1)	4 (3.0)	2,844 (27.0)
Unknown/Other <i>n</i> (%)	* (0.0)	7 (0.3)	* (0.0)	* (0.0)	12 (0.2)	0 (0.0)	19 (0.2)
Total <i>n</i>	860	2,497	232	1,599	5,211	134	10,524

\* Indicates  $n \leq 3$ .

SOURCE: California Alcohol and Drug Data System

**Exhibit 7. Percentage of Positive Tests for Illicit Drugs Among Adult and Juvenile Arrestees in San Diego County: 2000–2005**

Drug/Gender	2000	2001	2002	2003	2004	2005	% Change 2000–2005
Cocaine							
Male adults	15	14	12	10	11	11	-27
Female adults	26	16	21	15	23	15	-42
Juveniles	--	--	--	--	6	6	--
Heroin							
Male adults	6	8	5	6	5	5	-17
Female adults	7	9	6	9	7	9	29
Juveniles	--	--	--	--	1	2	--
Marijuana							
Male adults	38	36	37	39	38	34	-11
Female adults	27	28	33	29	28	31	15
Juveniles	42	45	46	49	42	44	5
Methamphetamine							
Male adults	28	32	34	38	43	44	57
Female adults	29	37	37	47	42	51	76
Juveniles	11	11	12	15	13	21	91

SOURCE: SANDAG Substance Abuse Monitoring Program

**Exhibit 8. Numbers and Percentages<sup>1</sup> of ED Reports for Selected Illicit Drugs of Abuse (Unweighted<sup>2</sup>): 2005**

Drug	Number	Percent
Cocaine	694	15.3
Heroin	616	13.6
Marijuana	988	21.8
Methamphetamine	1,477	32.6
Amphetamines	570	12.6
MDMA	37	0.8
PCP	47	1.0
GHB	14	0.3

<sup>1</sup>Represents the percentage of all illicit drugs, excluding Alcohol-Only cases for persons younger than 21.

<sup>2</sup>The unweighted data are from 7–9 EDs reporting to San Diego hospitals in 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted and, therefore, are subject to change.

SOURCE: DAWN *Live!*, OAS, SAMHSA, updated 4/17-4/18, 2006

**Exhibit 9: Retail Prices for Selected Drugs in San Diego County: 2005**

Drug	Price	Unit and Type
Cocaine	\$60–\$120	Gram
	\$20–\$140	One-quarter gram
	\$10	One-tenth gram
Heroin	\$80–\$100	Gram (powder)
	\$20	One-tenth gram (powder)
	\$40–\$100	Gram (Mexican black tar)
Marijuana	\$75–\$100	Ounce
Methamphetamine	\$40–\$50	Gram
	\$20	One-quarter gram
	\$140–\$250	One-quarter ounce

SOURCE: DEA San Diego and Imperial County Regional Narcotics Information Network

# Patterns and Trends of Drug Use in the San Francisco Bay Area

John A. Newmeyer, Ph.D.<sup>1</sup>

## ABSTRACT

*Indicators suggest a level or downward trend in the prevalence of cocaine use since 2003. Users predominantly prefer to smoke crack, and it may be that the majority are older than 40. Heroin use declined during the period 2000 to 2004, but it may have leveled off since then. Injection remains by far the preferred route of use. The median age of users is higher than ever, probably above 40. Use of methamphetamine may be leveling off after a long era of increases culminating in a peak around 2004 or 2005. Injection remains the dominant route of use, at least among problem users. As with cocaine and heroin, the great majority of users appear to be older than 30. Indicators suggest that marijuana use peaked in 2001 and declined significantly after that. Use of club drugs and hallucinogens remains rare. HIV disease incidence is low among heterosexual drug injectors.*

## INTRODUCTION

### Area Description

The San Francisco Bay area consists of the following counties: San Francisco, San Mateo, Alameda, Contra Costa, and Marin. The population was 4,154,000 as of July 2004. The population is among the most multicultural of any urban region of the United States, with a particularly large, varied, and long-established Asian-American representation (19 percent of the total). The Hispanic population represents a wide cross-section of persons of Latin American origin. Blacks account for some 11 percent of bay area residents. San Francisco County has long been a mecca for gays: gay men constitute more than 15 percent of the adult male population.

The bay area experienced its initial growth during the California gold rush. In the succeeding century and a half, it expanded greatly as a center for shipping, manufacturing, finance, and tourism. In recent years, Pacific Basin trade and high technology such as software and biotechnology development have led to further expansion and to a highly diversified economy.

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From 1994 to 2001, there was a steep rise in the cost of rental housing in the bay area, especially in San Francisco, Marin, and San Mateo Counties. This caused significant out-migration of lower income people, which may be exerting downward pressure on local drug-use prevalence. However, rental rates declined significantly from 2001 to 2003, which may have blunted these out-migration pressures. Unemployment rose from 2 to 6 percent during these 2 years, but it fell to below 5 percent by early 2006.

## Data Sources

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

- **Treatment admissions data** were available for all five bay area counties for 2000 through the first half of 2005. These data were compiled by the California Department of Alcohol and Drug Programs (DADP). In addition, admissions data for San Francisco County were provided by the San Francisco Department of Public Health for fiscal years (FYs) 2001 through 2005 and also for the first half of FY 2006.
- **Emergency department (ED) data** were accessed from the Drug Abuse Warning Network (DAWN) *Live!*, a restricted-access online query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). The unweighted data are for three counties of the San Francisco Bay area (San Francisco, Marin, and San Mateo) for 2004, 2005, and the first quarter of 2006. Seventeen of the 18 eligible hospitals in the area are in the DAWN sample. There are 19 EDs in the sample (some hospitals have more than 1 ED). Over the 27-month period, between 7 and 12 EDs reported data each month, with most reporting data that were basically complete (90 percent or greater; see exhibit 1). Data are preliminary and are not estimates for the San Francisco area. The 2005 DAWN *Live!* data are from an OAS update (April 17–18, 2006) and were accessed on May 30, 2006. Since all DAWN cases are reviewed for quality control and may be corrected or deleted, the data reported here are subject to change. The information derived from DAWN *Live!* represents drug reports in drug-related visits; reports exceed the number of ED visits, because a patient may report use of multiple drugs (up to six drugs and alcohol may be presented in DAWN). This paper focuses on demographic characteristics of patients for different drugs in drug-related visits. These data cannot be

compared with DAWN data from 2002 and before, nor can these preliminary data be used for comparison with future data. Only weighted ED data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found at the DAWN Web site <<http://dawninfo.samhsa.gov>>.

- **Medical examiner (ME) data on drug mentions** in decedents were provided by the San Francisco County Medical Examiner for that county for FYs 2000 through 2004.
- **Reports of arrests for drug law violations and counts of reported burglaries** were provided by the San Francisco Police Department (SFPD) for 2001 through the first 4 months of 2006.
- **Price and purity data** came from the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), and referenced heroin “buys,” mostly made in San Francisco County. Data for 2004 were compared with those for 1994–2003. Data on trafficking in heroin and other drugs were available from the National Drug Intelligence Center’s (NDIC) report, *Narcotics Digest Weekly*, December 28, 2004. Additional data on trafficking and production were provided by the *National Drug Threat Assessment 2005* publication of the NDIC.
- **Population sizes and HIV prevalence and incidence rates** were estimated by the “Consensus Group,” a large body of local experts. These estimates were for San Francisco County for 2006.
- **Acquired immunodeficiency syndrome (AIDS) surveillance data** were provided by the San Francisco Department of Public Health (SFDPH) and covered the period through March 31, 2006.
- **Hepatitis B (HBV) data** for San Francisco County were available for 1996 through 2004 and were provided by the SFDPH.
- **Hepatitis C (HBC) virus prevalence** estimates were provided by the Urban Health Study for 2003.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

In the five-county bay area, the overall number of admissions for drug treatment, other than alcohol, fluctuated within a fairly narrow range between 2001

and the first half of 2005 (exhibit 2). No clear trend is evident. The proportion of cocaine/crack admissions among these admissions rose from 24 percent to 26 percent between 2001 and 2005, although the actual number declined from 7,428 to a projected 6,942. Among these admissions, more than 87 percent cited smoking—presumably of crack—as the preferred route of use. The proportion of cocaine admissions among all drug admissions in San Francisco County was the same in FY 2006 as in FY 2003: 27 percent (exhibit 3).

In 2005, unweighted DAWN *Live!* cocaine ED reports totaled 2,718 (exhibit 4). The cocaine reports in 2005 represented predominantly Black (48 percent) and male (68 percent) patients. There were more than twice as many older than 44 (37 percent) as younger than 30 (18 percent). For those whose preferred route of use was known, about 55 percent smoked the drug. Data from the first quarter of 2006 are similar in these demographic measures.

Cocaine-related deaths in San Francisco County declined by 32 percent (95 to 65) between FY 2000 and FY 2004. These decedents, in FY 2004, were 69 percent male, 60 percent White, and 29 percent Black; they had a mean age of 42.

There were about 3,800 arrests on cocaine-related charges in San Francisco in 2004 and about 3,170 in 2005. The rate of arrests in the first 4 months of 2006 was essentially the same as in a similar period of 2005.

Prices of cocaine have risen slightly from 2002, according to the NDIC. Local prices for powder cocaine in 2004 were \$16,000–\$21,000 per kilogram, \$530–\$800 per ounce, and as low as \$10 per one-quarter gram. Crack prices were around \$600 per ounce and \$20–\$50 per “rock.”

Overall, the indicators suggest a level or downward trend in the prevalence of cocaine use since 2003. Users predominantly prefer to smoke “crack,” and it may be that the majority are older than 40.

##### Heroin

The indicators suggest that heroin use declined during the period 2000 to 2004 but may have leveled off since then. Injection remains by far the preferred route of use. The median age of users is higher than ever, probably above 40.

The number of treatment admissions for primary heroin problems in the five-county bay area fell by nearly one-half between 2000 and the first half of

2005 (exhibit 2). That decline may have slowed in the last 2 years. As a proportion of all primary drug admissions excluding alcohol, heroin constituted 64 percent in 1994, 55 percent in 1999, and only 33 percent in early 2005. Injection remains by far the predominant route of use: 80 percent reported that route, compared with 14 percent who reported inhalation as the preferred route. San Francisco County heroin admissions, as a proportion of all drug admissions, rose from 44 percent in FY 2003 to 48 percent in FY 2006 (exhibit 3).

The unweighted DAWN *Live!* data for 2005 show 1,187 heroin reports (exhibit 4). Reports of heroin during 2005 represented primarily male (64 percent) and White (63 percent) patients. Thirty-six percent were older than 44, and only 21 percent were younger than 30. For some 95 percent, injection was the preferred route of use.

Between FY 2000 and 2004 in San Francisco County, heroin-related deaths declined by 53 percent (122 to 57). In FY 2004, decedents were 74 percent male, 70 percent White, and 18 percent Black; they had a mean age of 43.

Arrests in San Francisco for narcotics-related offenses reached a recent peak of 6,136 in 2002. This was followed by a steep decline, such that the count in 2005 was 66 percent below that of 2002. The rate of arrests in the first 4 months of 2006 was roughly the same as that for a similar period of 2005.

Because many heroin users support their habits through property crimes, reported burglaries may be a good indicator of use. The number of such reports in San Francisco fell by 49 percent between 1993 and 1999 (11,164 to 5,704). After that low point, the count rose to 6,706 in 2001, fell to 5,507 in 2003, and rose again to nearly the 2001 level in 2004. The count for 2005 was 7,055, the highest in nearly a decade. The first 4 months of 2006, however, had a count of reported burglaries 12 percent lower than that of a similar period of 2005. These changes may reflect the price of heroin more than the prevalence of users; it is noteworthy that reported burglaries and the local price of heroin are both barely one-quarter of what they were 20 years ago.

Heroin street buys in the San Francisco area during 2004 were of Mexican origin, according to the DMP. That year's samples averaged 11 percent pure and \$0.98 per pure milligram (exhibit 5). Of the last 11 years, 2001 through 2004 were the 4 with the highest average price and lowest average purity.

Prices of Mexican black tar heroin ranged from \$9,200 to \$30,000 per kilogram and from \$230 to \$850 per ounce in 2004. Gram prices ranged from \$50 to \$75. In 2002, prices were \$16,000–\$30,000 per kilogram, \$450–\$850 per ounce, and around \$60 per gram.

The Consensus Group estimated a resident population of 12,300 heterosexual injection drug users (IDUs) in San Francisco in 2006, down from an estimated 13,000 in 2001. The present author reckons that more than 90 percent of injectors are primary heroin users, and more than 90 percent of heroin users are injectors, which suggests a heroin user prevalence also of about 12,300.

### **Other Opiates/Narcotics**

In the unweighted DAWN *Live!* ED data for 2005, oxycodone/combinations reports totaled 129 and hydrocodone/combinations reports totaled 254 (exhibit 4).

### **Methamphetamine/Amphetamines**

The number of treatment admissions for primary speed problems in the five-county bay area increased steadily between 2000 and the first half of 2005 (exhibit 2). The increase may have slowed somewhat during 2004–2005. The proportion of primary speed users among all nonalcohol drug admissions rose from 14 percent in 2000 to 26 percent in early 2005. The percentage of all drug treatment admissions that were for primary amphetamine use in San Francisco County has been rising steadily: from 12.1 percent in FY 2001 to 13.6 percent in FY 2003 and to 15.0 percent in FY 2006 (exhibit 3).

In DAWN *Live!* for 2005, unweighted methamphetamine reports numbered 1,422, or 20.8 percent of all illicit drug reports (exhibit 4). However, the proportion among all drugs was only 7.7 percent in the first quarter of 2006. In 2005, 80 percent of the ED reports represented male patients, 60 percent represented Whites, and nearly two-thirds were patients older than 30. For those patients whose preferred route was known, injectors outnumbered smokers by about two to one.

In San Francisco County, amphetamine-related deaths rose from 15 to 28 between FY 2000 and FY 2003, but then fell back to 21 in FY 2004. In FY 2004, decedents were 81 percent male and 86 percent White; they had a mean age of 43.

In San Francisco in 2004, pounds of “crystal” methamphetamine sold in the \$10,000–\$13,000



range, ounces sold in the \$600–\$1,500 range, and grams sold in the \$80–\$100 range (NDIC). In 1999, comparable price ranges were \$3,500–\$10,000 for pounds and \$500–\$1,000 for ounces. The DEA San Francisco Field Division reports that Mexican criminal groups control the local wholesale and midlevel distribution. Several counties near the bay area (Alameda, San Mateo, Santa Clara, Sacramento, San Joaquin, and Stanislaus) have been sites of “superlabs,” capable of producing 10 pounds or more of methamphetamine per production cycle. The National Drug Threat Assessment surveys indicate that Mexican criminal gangs control most wholesale and midlevel distribution, though Hawaiian, Filipino, and other Asian drug trafficking organizations produce and distribute significant quantities of “ice.”

The Consensus Group arrived at a “best estimate” of 5,234 MSM-IDUs resident in San Francisco in 2006. For at least 90 percent of this population, “speed” was the preferred drug.

Proposition 36, passed by California voters in 2000, has had a major impact on the prison population of the State. That population had been projected to reach 180,000 by 2005, but because so many drug-law offenders have instead been diverted to treatment, the 2005 prison population was only 164,000. A UCLA study estimates that taxpayers saved \$2.50 for each \$1 invested in Proposition 36; extrapolating from these data and including the obviated cost of a now-unneeded prison, the Drug Policy Alliance reckons total taxpayer savings at nearly \$1.4 billion. Methamphetamine was the preferred drug for approximately one-half of all drug-law offenders involved with Proposition 36 diversion.

To summarize, the use of methamphetamine may be leveling off, after a long era of increases culminating in a peak around 2004 or 2005. Injection remains the dominant route of use, at least among problem users. As with cocaine and heroin, the great majority of users appear to be older than 30.

### **Marijuana**

The percentage of all drug treatment admissions that were for primary marijuana use in San Francisco County fell from 13.2 percent in FY 2003 to 9.1 percent in FY 2006 (exhibit 3).

Arrests for marijuana-related offenses in San Francisco County numbered 1,736 in 2000, then ranged between 1,300 and 1,450 in the next 3 years before returning to the 2000 level in 2004. Only 1,141 arrests were reported in 2005, a 35-percent drop from 2004. The rate in the first 4 months of

2006 was 11 percent lower than during a similar period of 2005.

In 2004, sinsemilla marijuana sold for \$3,000–\$6,000 per pound, and domestic marijuana sold for \$4,000–\$5,000 per pound. Domestic marijuana sold for about \$200 per ounce. A large, and increasing, quantity of marijuana is sold legally from medical marijuana outlets to certified purchasers. There appears to be effective regulation of price and quality in that new “market.”

Overall, the indicators suggest that marijuana use peaked in 2001 and declined significantly after that.

### **Club Drugs**

Unweighted ED reports of gamma hydroxybutyrate (GHB) numbered just 51 in 2005; 49 percent of these patients were younger than 30. Ketamine reports numbered only 5. ED reports of methylenedioxy-methamphetamine (MDMA) numbered 111 in 2005, with 78 percent of the patients being younger than 30. These club drug reports were thus rare compared with cocaine or methamphetamine reports, each of which numbered in the thousands in 2005.

The NDIC reported that in 2004, street prices of MDMA were in the range of \$15–\$40 per “tab.”

### **PCP/LSD**

During the first half of FY 2006, only 29 (0.5 percent) of all drug admissions in San Francisco were for primary use of lysergic acid diethylamide (LSD), phencyclidine (PCP), or other hallucinogens. There were 56 unweighted ED reports of PCP and 24 of LSD during 2005. Of the PCP ED patients, one-half were Hispanic and 70 percent were age 35 or older.

### **Benzodiazepines**

According to unweighted DAWN *Live!* data, ED reports for benzodiazepines totaled 403 in 2005 (exhibit 4).

### **INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

#### **AIDS**

San Francisco County had a cumulative total of 26,636 AIDS cases of residents through March 31, 2006. Of these cases, 1,968 (7.4 percent) were heterosexual injection drug users (IDUs). Another 3,691 AIDS cases (13.9 percent) were men who had sex with other men (MSM) and also injected drugs (MSM/IDUs). There were just 43 reported cases

among lesbian IDUs, barely one-hundredth the number among MSM/IDUs. A total of 337 AIDS cases have been reported for transgender San Franciscans.

Since March 31, 2005, cumulative AIDS cases have increased by 2.0 percent, heterosexual IDU cases by 3.0 percent, MSM-IDU cases by 3.3 percent, transgender cases by 5.0 percent, but MSM (non-IDU) cases by only 1.5 percent. These increases hint at where AIDS incidence “hot spots” might be.

Among San Franciscans diagnosed in 2003 through 2005, heterosexual IDUs accounted for 14 percent, compared with 10 percent among those diagnosed in 1994–1996, 14 percent of those diagnosed in 1997–1999, and 14 percent of those diagnosed in 2000–2002. However, the overall case numbers in 2003–2005 were far lower than those of the late 1980s and early 1990s. As a result, the percentage of heterosexual IDUs among the cumulative AIDS caseload will probably not increase significantly from the current level of 7 percent.

The demography of the cumulative heterosexual IDU caseload with AIDS has changed very little in the past 15 years. This caseload is 68 percent male, 51 percent Black, 35 percent White, 11 percent Hispanic, and 2 percent Asian/Pacific Islander. By contrast, the gay/bisexual IDU caseload is 71 percent White, 16 percent Black, 10 percent Hispanic, and 1.5 percent Asian/Pacific Islander. The heterosexual IDU demography is like that of heroin users except for over-representation of Blacks, while the gay male

IDU demography is similar to that for male speed users.

The Consensus Group estimated that in San Francisco in 2006, 13.5 percent of heterosexual male IDUs, 10.5 percent of female IDUs, and 34.0 percent of MSM-IDUs were HIV positive. The Consensus Group also estimated very low annual HIV-incidence rates for heterosexual men and women (0.5 percent each) but higher incidence rates for MSM-IDUs (2.6 percent).

**Hepatitis B**

From 1997 through 2001, reported cases of HBV in San Francisco County rarely deviated from a pace of a bit more than one per week. The pace dropped in 2002 and 2003 to about one every 10 days, then dropped further in 2004 to about one every 14 days.

**Hepatitis C**

UHS data from 2003 disclosed that fully two-thirds of all IDUs in the sample self-reported HCV seropositivity. UHS staff believe, on the basis of earlier HCV antibody testing, that true prevalence is between 90 and 95 percent. This has enormous implications for the long-term health of San Francisco’s IDU population—not only the current user population, but also the possibly much larger number with past (or future) injection drug use.

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**Exhibit 1. DAWN ED Sample and Reporting Information in the San Francisco Metropolitan Area: January 2004–March 2006**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting Per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
18	17	19	7–11	0–1	0–3	7–11

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department. SOURCE: DAWN Live!, OAS, SAMHSA, updated 5/30, 2006

**Exhibit 2. Admissions to Drug Treatment Programs in the San Francisco Bay Area by Primary Drug of Abuse: 2000–2005**

Drug	2000	2001	2002	2003	2004	2005 <sup>1</sup>
Cocaine	7,718	7,428	6,746	7,114	6,814	6,942
Heroin	17,416	14,673	11,461	9,898	9,089	8,872
Amphetamine	4,469	5,073	5,636	6,438	6,701	6,822
All Drugs	32,034	30,920	28,329	27,626	26,381	26,620

<sup>1</sup>Data for 2005 are projected from the first half of the year.  
SOURCE: California Department of Alcohol and Drug Programs (DADP)

**Exhibit 3. Admissions to Drug Treatment Programs in San Francisco County, by Primary Drug of Abuse: FYs 2000–2005**

Drug	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006 <sup>1</sup>
Cocaine	2,306	2,440	2,274	2,527	2,350	1,566
Heroin	3,867	4,002	3,700	3,646	3,589	2,834
Amphetamine	991	1,053	1,144	1,235	1,242	886
Marijuana	867	1,067	1,110	950	822	535
All Drugs	8,191	8,764	8,406	8,520	8,759	5,894

<sup>1</sup>Data for FY 2006 are July-December only  
SOURCE: San Francisco Department of Public Health

**Exhibit 4. Unweighted<sup>1</sup> Drug Reports in DAWN Live! in San Francisco: 2004–2006**

Drug	2004	2005	2006 (Jan–March)
Cocaine	2,458	2,718	771
Heroin	1,278	1,187	289
Methamphetamine	1,093	1,422	249
Marijuana	596	664	177
MDMA	90	111	27
Oxycodone/Combinations	73	129	30
Hydrocodone/Combinations	201	254	71
Benzodiazepines	519	403	117

<sup>1</sup>The unweighted data are from 8–12 EDs reporting from San Francisco hospitals to DAWN in calendar 2005. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted and, therefore, are subject to change.  
SOURCE: DAWN, OAS, SAMHSA, updated May 30, 2006

**Exhibit 5. Price and Purity of Heroin Samples: 1994–2004**

<b>Year</b>	<b>Price per Pure Milligram</b>	<b>Purity (Percent)</b>
1994	\$0.95	29
1995	\$0.83	35
1996	\$0.83	24
1997	\$0.63	26
1998	\$0.33	26
1999	\$0.47	20
2000	\$0.70	15
2001	\$1.40	10
2002	\$0.99	12
2003	\$0.98	11
2004	\$0.98	11

SOURCE: DEA, DMP

# Recent Drug Abuse Trends in the Seattle-King County Area

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## ABSTRACT

*The most noteworthy trends for 2005 in the Seattle area involve increases in prescription-type opiates and methamphetamine. Morbidity and mortality indicators for prescription-type opiates continue to increase; these substances (usually detected in combination with other substances) are the most common drug type identified in drug-involved deaths. Methamphetamine deaths have increased slightly in the past year and substantially over the past several years; however, they remain the least common of the street drugs detected in deaths in the Seattle area. While methamphetamine labs and dump sites continue to decline, treatment admissions continue to increase throughout the State and in the Seattle area. The price of methamphetamine is declining, while the overall purity and the abuse of methamphetamine throughout Washington is increasing. Methamphetamine use among those entering State-funded treatment outside of King County is more than double that in the county. Though the trends involving methamphetamine are of interest, it is important to note that both cocaine and heroin have greater health consequences as measured by deaths and ED mentions. Cocaine and heroin morbidity and mortality indicators continue at moderately high levels, as do treatment admissions and law enforcement reports. Marijuana continues to be a major drug used, with substantial production in Washington and Vancouver, Canada. Benzodiazepines and muscle relaxant indicators are fairly low, with continued slight increases; use of these substances appears to be mostly secondary to other drugs. MDMA use continues at relatively low levels. Large seizures by U.S. Customs and the DEA in Washington in 2004 and 2005 indicate that the Northwest appears to be a major transshipment point to parts of the United States. Prevalence of hepatitis B and C remains high in injection drug users, with lower levels of HIV remaining steady.*

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## INTRODUCTION

### Area Description

Located on Puget Sound in western Washington, King County spans 2,130 square miles, of which the city of Seattle occupies 84 square miles. The combined ports of Seattle and nearby Tacoma make Puget Sound the second largest combined loading center in the United States. Seattle-Tacoma International Airport, located in King County, is the largest airport in the Pacific Northwest. The Interstate 5 corridor runs from Tijuana, Mexico, in the south, passes through King County, and continues northward to Canada. Interstate 90's western terminus is in Seattle; it runs east over the Cascade Mountain range, through Spokane, and across Idaho and Montana.

The estimated 2005 population of King County is 1,793,583. King County's population was the 12th largest in the United States in 2000. Of Washington's 6.3 million residents, 29 percent live in King County. The city of Seattle's population was 569,101 as of 2003; the suburban population of King County is growing at a faster rate than Seattle itself.

The county's population is 75.7 percent White, 10.8 percent Asian/Pacific Islander, 5.5 percent Hispanic, 5.4 percent African-American, 0.9 percent Native American or Alaska Native, 0.5 percent Native Hawaiian and Other Pacific Islander, and 2.6 percent "some other race." Those reporting two or more races constitute 4.1 percent of the population. Income statistics show that 8.0 percent of adults and 12.3 percent of children in the county live below the Federal poverty level, lower than the State averages of 10.2 percent and 15.2 percent, respectively.

### Data Sources

Information for this report was obtained from the sources described below:

- **Treatment data** were extracted from the Washington State Department of Social and Health Services, Division of Alcohol and Substance Abuse's Treatment and Assessment Report Generation Tool (TARGET) via the Treatment Analyzer system. TARGET is the department's statewide alcohol/drug treatment activity database system. Data were compiled for King County residents from January 1, 1999, through December 31, 2005. Data are included for all treatment admissions that had any public funding. Department of Corrections (DOC) and private pay clients (at methadone treatment programs) are also included.

- **Emergency department (ED) drug data** were obtained from the Drug Abuse Warning Network (DAWN) *Live!* system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Preliminary, unweighted data for 2005 are presented. Eligible hospitals in the area totaled 22; hospitals in the DAWN sample totaled 22. A total of 24 emergency departments have been selected for inclusion in the sample (some hospitals have more than 1 ED); however, during this period, between 11 and 14 hospitals reported data each month. Data were incomplete, with less than 50 percent complete data for 0–2 of these hospitals in each month (exhibit 1). These data are preliminary, meaning that they may change. Data represent drug reports, are unweighted, and are not estimates for the reporting area. Data are utilized for descriptive purposes only. Available data are for King and neighboring Snohomish Counties combined; Pierce County is part of the statistical sample, but no EDs in Pierce were reporting during 2005. There are new case types in DAWN *Live!*, with the most relevant one presented here being the “other” case type, which includes “all ED visits related to recreational use, drug abuse, drug dependence, withdrawal, and any misuse” not classified in other categories, such as overmedication and seeking detox/treatment. For the sake of clarity, “other” will be referred to as “drug abuse/other” in this report.
- **Drug-related mortality data** were provided by the King County Medical Examiner (ME). Data for 2005 are preliminary. The data include deaths directly caused by licit or illicit drug overdose and exclude deaths caused by antidepressants in isolation and by poisons. Totals may differ slightly from drug death reports published by the King County ME’s office, which include fatal poisonings. Because more than one drug is often identified per individual drug overdose death, the total number of drugs identified exceeds the number of actual deaths. Additionally, data from the Washington State Patrol’s Forensic Laboratory Services Bureau/“Toxicology Lab” from 2000 to 2005 were examined for substances which either the medical examiner does not report (i.e., marijuana) or which were not detected in any drug-caused deaths (i.e., lysergic acid diethylamide [LSD] and psilocybin). These data are based upon samples submitted by the King County Medical Examiner and indicate whether a substance was present, but not whether it was involved in a death, a ruling made by the Medical Examiner based upon multiple sources of information.
- **Drug-related Help Line data** are from the Washington State Alcohol/Drug Help Line (ADHL), which provides confidential 24-hour telephone-based treatment referral and assistance for Washington State. Data are presented for 2001 to 2005 for calls originating within King County. Data presented are for drugs mentioned. A caller may refer to multiple drugs; therefore, there are more drug mentions than there are calls. The data exclude information on alcohol and nicotine, which account for more than one-half of the calls. The youth category includes persons age 19 and younger. Data are presented primarily for illicit drugs only; prescription drugs have not been coded consistently over time, limiting trend analyses. The large number of unknown drugs in 2001 and 2002 may obscure some trends as well.
- **Forensic drug analysis data** are from the National Forensic Laboratory Information System (NFLIS), which distributes data from the Washington State Patrol’s Toxicology Lab on drug test results on local law enforcement seizures. These data include the top 25 drugs identified in fiscal year (FY) 2003–FY 2005. Data are presented for the Seattle-area lab in comparison to the rest of the State.
- **Heroin price and purity information** was obtained from the Drug Enforcement Administration’s (DEA’s) Domestic Monitor Program (DMP) for FYs 2000–2005.
- **Law enforcement data** were provided by the Northwest High Intensity Drug Trafficking Area (HIDTA) officials and include the Federal-wide Drug Seizure System (FDSS), which tallies all Federal law enforcement drug seizures in the State of Washington (e.g., Drug Enforcement Administration and U.S. Customs) for calendar years 2001–2005.
- **Methamphetamine production data** are from the Washington State Department of Ecology (DOE), which is mandated to respond to and document all “Methamphetamine Incidents,” including operating labs, dump sites, and other sites associated with the manufacture of methamphetamine.
- **Data on infectious diseases related to drug use and injection drug use**, including the human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), and hepatitis,

were provided by Public Health-Seattle & King County (PHSKC). Data on HIV cases (including exposure related to injection drug use) in Seattle-King County (2001 through 2005) which were obtained from the “HIV/AIDS Epidemiology Report.”

- **Key informant interview data** are obtained from discussions with treatment center staff, street outreach workers, and drug users.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

Cocaine remains a major drug of abuse, with substantial treatment admissions, morbidity, and mortality.

The number of treatment admissions involving cocaine as the primary drug of abuse increased between 1999 and 2005, from 1,280 to 1,960, respectively (data not shown, all data refer to 2005, unless specified otherwise in this report). A substantial minority of people (40 percent) entering treatment in 2005 reported using cocaine for the first time prior to the age of 19, lower than the average for all drugs of 69 percent, which is driven primarily by the low ages of onset for alcohol and marijuana (exhibit 2b). Only 1 percent of primary cocaine admissions were among those younger than 18. Females made up 38 percent of admissions, and Whites represented just 33 percent, with 51 percent of primary cocaine admissions being African-Americans. Cocaine is the only drug for which Caucasians do not represent the majority ethnic group in treatment admissions. This may be, in part, because of the large proportion of African-Americans whose entry referral to treatment for cocaine is from the Department of Corrections (DOC) (30.0 percent) relative to the proportion for Caucasians (18.4 percent).

Unweighted ED reports for cocaine totaled 29.2 percent ( $n=4,646$ ) of all major drugs of abuse, the largest proportion of such substances (exhibit 3a). The majority, 82.9 percent, of case types were drug abuse/other, with another 15.4 percent seeking detox or treatment. Nearly two-thirds of cocaine patients were male. Race data were missing for more than one-half of the cases, with African-Americans representing 12.9 percent of reports, nearly double the proportion for this group in drug reports overall. The largest age group was the 35–44-year-olds, followed by those age 45–54. Route of administration data, not shown in exhibit 3a, were missing for three-quarters of cases. Of the documented reports, 7.0 percent reported injecting and 13.6 percent reporting smoking.

Cocaine-involved deaths totaled 81 in 2005, the most of any street/illegal drug (exhibit 4). The rate of cocaine deaths was 4.5 per 100,000 population, within the range of 3.9 to 5.2 since 1997. The median age of cocaine-involved decedents was 42.0 over this time-frame, the same as the average for all major drugs of abuse (exhibit 5). The percentage of females was slightly lower than the average, at 22.5 percent. Cocaine-involved deaths were disproportionately African-American (21.3 percent) compared with deaths involving all other drugs (11.0 percent). Almost all deaths were ruled accidental: 93.4 percent.

Cocaine remains the most commonly mentioned drug among adult callers to the Help Line, representing 31 percent of drugs mentioned ( $n=1,095$ ) (exhibit 6). Among adolescent callers, cocaine remains the third most common drug, with 64 drug mentions (14 percent).

Federal law enforcement seizures of cocaine totaled 521 kilograms in 2005, the largest volume since at least 2001 (exhibit 6). Powder cocaine is reportedly available throughout the State, while crack is available only in the largest cities.

According to the DEA Seattle Field Division, powder cocaine averaged \$30 per gram, and crack sold for \$20 for 1/10 gram.

Accounting for 38.3 percent of seizures, cocaine was the most common substance identified in the Seattle area in FY 2005 according to NFLIS data on local law enforcement drug seizure testing (exhibit 8). By comparison, for the rest of the State, cocaine accounted for only 19.8 percent of seizures. Although cocaine remained the second most common drug detected in the laboratories statewide, cocaine seizures were substantially lower than methamphetamine seizures (53 percent).

### Heroin

Heroin is a major drug of abuse with substantial ongoing consequences as indicated by an average daily caseload of 2,565 in opiate substitution treatment programs in 2005. These in-treatment users represent a minority of all users, according to public health estimates. The rate of deaths involving heroin/opiates/morphine has declined somewhat in recent years.

The number and proportion of primary heroin admissions to all modalities of treatment dipped in 2001–2003 but increased again in 2004, and in 2005 there were 2,023 treatment admissions (16.7 percent of admissions for any substance) (exhibit 2b). Treatment

admissions and caseloads are sensitive to funding support, therefore treatment admission trends may well be driven primarily by funding rather than demand. At the end of 2005, 293 people were on the waitlist for methadone treatment managed by the PHSKC needle exchange program, a drop from 493 at the end of 2004. This change was likely related to new funding made available for treatment in 2005.

The majority of heroin treatment admissions were to opiate substitution programs, typically methadone replacement therapy. For instance, of the 2,023 heroin admissions in 2005, 1,438 were to opiate substitution programs. The average daily caseload for these programs was 2,565 in 2005, indicating the relatively long lengths of stay. In these programs, the number of admissions for heroin increased slightly from 1,260 to 1,438 from 1999 to 2005, while the proportion of heroin admissions declined from 94.6 percent to 83.2 percent of all admissions. Admissions for prescription-type opiates increased concomitantly from 3.0 to 14.4 percent. Note that these are the only treatment data for which private/self-pay clients are included. A much larger proportion of private/self-pay clients report prescription-type opiates as their primary drug compared with those on public funding. In other words, economic status is correlated with drug of choice.

Unweighted heroin ED reports totaled 2,391, or 15.0 percent of the major substance of abuse reports; 82.5 percent were drug abuse/other case types and 16.5 percent were seeking detox or treatment (exhibit 3a). The case type pattern is similar to that for cocaine, marijuana, and methamphetamine. Most reports were for males: 63.1 percent. Race data were missing for 57.0 percent of reports; of the documented cases, 36.6 percent were Caucasian and 4.6 percent were African-American. Only 14 reports of heroin were documented for those younger than 18, with the largest group being those age 35–44, followed by 45–54-year-olds. Of the 57 percent for whom a route of administration was reported, virtually everyone injected.

The rate of heroin/opiate/morphine-involved deaths held steady in 2005 at 4.1 per 100,000 population ( $n=74$ ), down from a high of 8.4 in 1998. The numbers are shown in exhibit 4. The median age for heroin/opiate/morphine-involved deaths was 41.0, slightly lower than the average for all major drugs of abuse (42.0) (exhibit 5). Females represented 19.8 percent of these decedents, the smallest proportion among all prescription and illegal drugs decedents. Most decedents were Caucasian (83.5 percent), and accidental deaths were the most common manner of death (91.7 percent). (A definitive determination of

the presence of heroin is often lacking; the category of heroin/opiate/morphine is the best approximation of heroin deaths, as it excludes all deaths known to involve specific prescription-type opiates.)

Heroin Help Line mentions have remained relatively steady, with 13 percent of adult callers to the ADHL mentioning heroin in 2005 (exhibit 6). Heroin is less frequently mentioned among youth (representing just 4 percent of calls in 2005).

Only 8 kilograms of heroin were seized by Federal law enforcement in Washington State in 2005, the smallest volume in recent years (exhibit 7). Heroin is available throughout much of Washington, according to local law enforcement. According to the DEA, it costs about \$40–\$60 per gram in the Seattle area.

NFLIS results show similar levels of law enforcement seizures for heroin in the Seattle area (5.6 percent) and in the rest of the State (5.2 percent) in FY 2005 (exhibit 8). Although heroin was the fourth most common substance detected in each of these regions, it constitutes a relatively small percentage of the number of seizures compared with cocaine, methamphetamine, and marijuana.

The predominant form of heroin on the streets is Mexican black tar. All DEA DMP buys of heroin that have been positively identified were found to be Mexican in origin. China white, a common form in British Columbia, Canada, and on the east coast of the United States, is uncommon in the local area, according to regional HIDTA and DEA.

Heroin DMP buys by the DEA to establish the local price and purity of street-level heroin yielded a median purity of 10 percent for buys in Seattle (exhibit 9). Comparable data are available since FY 2000, when the median purity was at its peak of 17 percent. It dropped for the next 2 years to about 7 percent, increased to 13 percent in the following 2 years, and then dropped to the 10 percent reported for FY 2005. The price per gram of heroin over this same time went from a low of \$0.56 in FY 2000 to highs in FY 2001 and FY 2002 of almost \$1.30 per gram; it has since remained steady at approximately \$0.90 per gram. Data from the first quarter of FY 2006 (autumn 2005) indicate a median purity of 11 percent.

### Other Opiates/Prescription-Type Opiates

For the purposes of this report, “other opiates/prescription-type opiates” include codeine, dihydrocodeine, fentanyl, hydrocodone (e.g., Vicodin), methadone, oxycodone (e.g., Percocet and OxyContin), propoxyphene (e.g., Darvon), sufentanil, tramadol (e.g.,



Ultram), hydromorphone (e.g., Dilaudid), meperidine (e.g., Demerol), pharmaceutical morphine, acetyl-methadol, and the “narcotic analgesics/combinations” reported in the DAWN ED data. Source information for methadone, whether pain medication or opiate treatment program, is rarely available.

Indicators of use, abuse, and morbidity and mortality of prescription-type opiates all continue to increase.

Admissions for primary prescription-type opiate use at entry to all modalities of treatment increased from 1.0 to 3.4 percent from 1999 to 2005. Overall, the combined proportion of admissions to private and public pay opiate substitution programs that involved a prescription-type opiate as the primary drug increased from 3.0 to 14.4 percent. This represents an increase from 40 to 250 people in opiate substitution programs (data not shown). A similar number of people reported prescription-type opiates as their secondary or tertiary drug of choice. Among outpatient treatment admissions, the modality with the largest number of admissions in the county, there were 379 mentions of any prescription-type opiate use as one of the top 3 drugs in 2005. However, in contrast to opiate substitution treatment programs, a larger proportion of people mentioned prescription-type opiates as their secondary or tertiary drug of choice. These data indicate that prescription-type opiates are used by persons entering a range of treatment modalities and that their use may or may not be primary.

In opiate substitution treatment programs, the proportional increase in prescription-type opiates as secondary or tertiary drugs was much smaller than the increase for those reporting them as their primary drug of abuse. This appears to indicate that the use of prescription-type opiates by heroin users has not increased nearly as rapidly as the increase in those using them as their primary drug. However, it could also indicate that some people are switching to prescription-type opiates from heroin as their primary drug.

Demographics of those entering treatment with prescription-type opiates as their primary drug in 2005 indicate that this group of users is older and more often female and White than users of most other drugs of abuse (exhibit 2b). Past analyses have indicated that those using prescription-type opiates primarily have higher incomes.

Unweighted ED data indicate that prescription-type opiates were the second most commonly reported class of drugs in 2005 (exhibit 3b). The two most common types were oxycodone, 849 reports, and methadone, 739 reports. A large proportion of reports are for prescription-type opiates “not otherwise speci-

fied,” meaning that it was not clear from the medical record which type was used.

For prescription-type opiates as a general class of drugs, slightly more than one-half of the ED cases were reported as drug abuse/other cases, followed by 16.0 percent adverse reaction, 14.6 percent overmedication, 13.4 percent seeking detox or treatment, and 3.9 percent suicide attempts. The case types differed substantially for oxycodone compared with methadone. Two-thirds of methadone and 38.8 percent of oxycodone cases were drug abuse/other cases. Oxycodone users were more likely to have suicide, seeking detox or treatment, and adverse reaction case types.

The case type information available for ED data is largely unavailable for mortality data. These ED data may shed some light on the motivations for use among drug-involved deaths. In particular, the much higher proportion of oxycodone reports that were related to adverse reactions, 17.2 percent ( $n=146$ ), compared with 5.8 percent ( $n=43$ ) for methadone, points to problems ostensibly related to the proper use oxycodone, whereas problems with methadone were more likely related to a motivation of drug abuse.

Approximately one-half of prescription-type opiate ED patients, as well as those for methadone and oxycodone, were female (exhibit 3b). The age distribution for all prescription-type opiates was about one-quarter each in the 45–54 and 35–44 age groups and about 10 percent in the 21–24, 25–29, and 30–34 age groups. Different age distributions were evident for oxycodone and methadone, with oxycodone users making up a larger proportion of both the oldest group (those 65 and older) and those younger than 25. The age distribution for methadone is more similar to that seen for cocaine, heroin, and benzodiazepines. Taken together, these ED data may indicate that methadone is being abused more often than oxycodone among those seen at the ED.

Overall, the number and rate of prescription-type opiate-involved deaths continues to climb, surpassing any other abusable drugs (exhibit 4). In 2005, there were 138 prescription-type opiate deaths ruled as drug involved, up from 27 in 1997 (a rate increase from 1.6 to 7.7 per 100,000, adjusting for county population changes over time). Methadone-involved deaths were the most common, totaling 81, up from 67 in 2004 and 47 in 2003. Oxycodone-involved deaths were the next most common, with 32 in 2005, similar to the 33 seen in 2004. These two substances represented 69 percent of prescription-type opiates detected.

The median age of those with prescription-type opiate-involved deaths was 44.0, compared with a median of 42.0 for all major drugs of abuse (exhibit 5). A substantial minority of decedents with prescription-type opiates detected were female, 40.5 percent, compared with an average of 29.2 percent for all drug-involved deaths. A slightly larger proportion were White (86.4 percent) than the average for all drugs. A minority of decedents also had an illegal drug detected, 36.1 percent. Presence of an illegal drug is a reasonable indication that drug abuse was the motivation for using. However, determining other motivations for, or problems with, use is difficult. Accident was the leading manner of death, but suicides were common, at 10.6 percent, as was a ruling of undetermined (9.3 percent).

The relatively large proportion of deaths ruled as “undetermined” is likely related to several factors, including a lack of information on the opiate tolerance status of the individual or their motivations for using (e.g., pain, suicide, substance abuse, or drug treatment in the case of methadone). What constitutes a prescription-type opiate-related death is unclear, particularly among opiate-tolerant individuals. Issues of tolerance, potentiation with other drugs, and overlapping therapeutic and lethal dose levels complicate assigning causation in prescription-type opiate-involved fatalities. The source and form of prescription-type opiates involved in deaths are often undetermined.

Help Line calls regarding prescription-type opiates have been documented differently over time, with OxyContin and “prescription pain pills” added as categories during mid-2003. Adults mentioned prescription pain pills 492 times in 2005. This was more than the 470 mentions for heroin. This is the first year with more calls for prescription pain pills than for heroin; the total is also more than the 397 mentions for prescription pain pills in 2004. OxyContin was specifically mentioned by 228 adults in 2005, similar to 2004, with 2003 data not comparable due to the shorter timeframe of data collection. Though the numbers are very small, youth mentioned OxyContin more often than prescription pain pills in 2005: 29 and 20 times, respectively. Heroin was mentioned by 19 youth, in comparison.

According to the Northwest HIDTA survey of local law enforcement drug availability perceptions for 2005, prescription-type opiates are commonly available throughout the State, led by oxycodone and hydrocodone.

Three types of prescription-type opiates are among the top 25 substances reported in the FY 2005 NFLIS

data: oxycodone, hydrocodone, and methadone (exhibit 8). For the Seattle area, these three substances totaled 4.1 percent, which is only slightly higher than in the rest of the State (3.7 percent of seizures).

### **Methamphetamine/Amphetamine**

Stimulants include a range of drugs, such as methamphetamine, which is available almost exclusively as an illicit drug. Amphetamines are primarily prescription drugs: dextroamphetamine (e.g., Dexedrine) for weight control and dl amphetamine (e.g., Adderall) for ADD/ADHD. Another prescription medication for ADD/ADHD is methylphenidate (e.g., Ritalin). MDMA (3,4-methylenedioxymethamphetamine) is a type of methylated amphetamine; however, its typical patterns of use led it to be included in the behaviorally based category of drugs discussed below as Club Drugs.

Indicators of the negative consequences of methamphetamine use are increasing, while indicators of local manufacturing appear to be decreasing. Methamphetamine deaths have increased slightly in the past year and substantially over the past several years, but they remain the least common of the street drugs detected in deaths in the Seattle area. While methamphetamine labs and dump sites continue to decline, treatment admissions continue to increase throughout the State. Amphetamine abuse appears to be at low levels.

Treatment admissions for methamphetamine as the primary drug increased from 4.0 percent to 11.1 percent of admissions for all drugs from 1999 to 2005, representing 1,344 people in 2005 (exhibit 2b). Methamphetamine was mentioned as a secondary or tertiary drug of abuse less often, with proportional increases over time somewhat smaller than for methamphetamine as the primary drug of abuse (see exhibit 2a). This seems to indicate that primary methamphetamine use is increasing more quickly than secondary or tertiary use.

A majority (56 percent) of primary methamphetamine users admitted to treatment in 2005 reported first use of the drug prior to age 19, a larger proportion than cocaine (40 percent), prescription-type opiates (38 percent), and heroin (41 percent) (exhibit 2b). Five percent of admissions for methamphetamine were among youth. Though the level of use among youth is much lower than for marijuana and alcohol, it is the highest of the other major drugs of abuse. The proportion female (37 percent) is similar to heroin and cocaine and higher than for alcohol and marijuana. Caucasians represented 82 percent of primary users, a larger proportion than for any other

drug. The prevalence of any use of methamphetamine among those entering State-funded treatment outside of King County is more than double that in the county.

Amphetamines are recorded as a separate drug category from methamphetamine, and primary admissions stayed level at about 0.5 percent, totaling 69 in 2005. Many more reported them as secondary or tertiary drugs of abuse ( $n=214$ ) in 2005, with no discernable trend over time.

Methamphetamine reports made up 12.1 percent of unweighted ED reports for major drugs of abuse, totaling 1,928 reports in 2005 (exhibit 3a). This is similar to reports for marijuana and lower than reports for heroin and cocaine. The case type distribution was similar to other street drugs, with 82.6 percent of reports for drug abuse/other and 15.9 percent for those seeking detox or treatment.

Seventy percent of methamphetamine reports were for men. Race data were missing for 49 percent of methamphetamine reports, with Caucasians making up 43.9 percent of reports, followed by African-Americans at 3.2 percent. Caucasians represented a higher proportion of patients, relative to African-Americans, than for any other street drug. The age distribution was shifted towards the young adults compared with cocaine and heroin, with 61 percent of methamphetamine patients being age 18–34, compared with 33 and 41 percent for cocaine and heroin, respectively.

Route of administration data were missing for 74 percent of methamphetamine reports; of the reports documented, 13.6 percent reported injecting and 8.5 percent reported smoking. The relatively high proportion of injectors is in contrast to the general perception of overall use patterns from public health and treatment providers, who indicate most users are smoking methamphetamine. The high proportion of injectors in the ED is likely related to the acuity of problems associated with those who inject and the characteristics of those who receive care at EDs. Treatment data for primary methamphetamine users indicate that 14 percent report recent injecting of any drug and 43 percent report ever injecting any drug; these proportions are higher than for primary cocaine users but much lower than for primary heroin users in 2005.

Methamphetamine-involved deaths continue to increase, totaling 24 in 2005, up from 18 in 2004 and 3 in 1997 (exhibit 4). Those dying with methamphetamine in their system were substantially younger compared with decedents with other drugs, with a

median age of 38.5, compared with 42.0 for all major drugs (exhibit 5). A relatively small proportion was female, 20.6 percent, compared with the overall average of 29.2 percent. A larger proportion was Caucasian, 88.7 percent. Almost all deaths were ruled accidental: 95.3 percent.

Adult mentions of methamphetamine when calling the Help Line totaled 745 (21 percent), second only to cocaine and similar to past years (exhibit 6). Among youth, methamphetamine is the second most commonly mentioned drug after marijuana, representing 16 percent of mentions, similar to previous years.

A category of amphetamine was added to the Help Line data in 2003. There were 39 adult mentions and 1 youth mention of amphetamines in 2005, though there may be underreporting due to an overlapping category of “prescription drugs.”

Federal law enforcement seizures of methamphetamine have fluctuated substantially since 2001 and consist of two measurement units, kilograms and dosage units (which are not defined). The number of dosage units seized, 53,199, was far higher in 2005 than in any preceding year, while the number of kilograms seized, 76, was in the general range seen in previous years (exhibit 7).

Prices for methamphetamine ranged from \$20 to \$60 per gram in Seattle during autumn 2005, according to the DEA Seattle Field Division. Ounce prices for “crystal meth”/ice were \$700–\$1,400 per ounce compared with \$350–\$800 per ounce for regular methamphetamine. Ice has a characteristic look and is higher purity.

NFLIS data indicate that methamphetamine was the most common drug seized by law enforcement in Washington, outside of Seattle, in FY 2005 (exhibit 8). It is found at a much lower level in Seattle, where cocaine is the most commonly seized drug. Nearly one-third (31.4 percent) of Seattle-area drug tests were positive for methamphetamine, compared with 53.2 percent of drug tests for the rest of Washington. Combined, methamphetamine and cocaine account for 70 and 73 percent of all seizures in Seattle and Washington State, respectively; this indicates the similar prevalence of illegal stimulants being seized across the State.

Federal law enforcement sources report that less methamphetamine is being manufactured in Washington, but that demand is being met by an increase in supply from Mexico and Mexican groups in California. Additionally, these sources report that the price of methamphetamine has been declining, while

the overall purity and the prevalence of crystal methamphetamine throughout Washington have been increasing.

Methamphetamine incidents, a combination of active labs used for manufacturing and dump sites of lab equipment or inactive labs, continued to decline for the State as a whole in 2005. The peak in incidents for the State and the two most populated counties occurred in 2001. In King County, the number of incidents was flat in 2003 and 2004 at around 200, with a decline to 123 in 2005. The surrounding counties of Pierce, Kitsap, and Snohomish all experienced declines in 2005 as well. Overall, the State saw a decline from 1,339 incidents in 2004 to 806 in 2005.

As the number of methamphetamine incidents has declined, the types of incidents have changed. In 2000, 84 percent of incidents were laboratories, and 16 percent were dump sites. In 2005, just 43 percent of incidents were laboratories; the remainder were dump sites. Whether this indicates laboratories being better hidden; the long persistence of dump sites in the environment; changes in law enforcement policies, funding, and practices; or other factors is unknown.

It is important to note that these incident data do not indicate the manufacturing methods or the quantities manufactured at the site of individual incidents. Reports from law enforcement indicate that “super” labs, those capable of producing large amounts of methamphetamine quickly, represent a small minority of manufacturing labs in the State.

## Marijuana

Marijuana use is ubiquitous throughout King County and Washington State. It is commonly cited in admissions to drug treatment by youth and adults. Indicator data do not point to substantial morbidity associated with use.

The proportion of admissions for marijuana as the primary drug of abuse varied between 17 and 20 percent, with the number of admissions ranging from about 1,700 to 2,100 between 1999 and 2005, and totaling 2,012 in 2005 (exhibit 2b). About one-half of all admissions involved marijuana as the primary, secondary, or tertiary drug of abuse (exhibit 2a).

Admissions to treatment for which marijuana was the primary drug were more often adolescent and male (exhibit 2b). This group also had the second highest proportion of African-Americans (31 percent), behind cocaine (51 percent) and higher than the average of 23 percent for all substances. This ethnic pattern

may be influenced by law enforcement involvement given that 40.2 percent of African-Americans admitted to treatment with a primary marijuana problem were referred by the DOC, compared with 14.8 percent among Caucasians. Compared with cocaine, this is a higher proportion referred from DOC and a larger differential between ethnicities.

Marijuana ED reports totaled 1,968, representing 12.4 percent of unweighted reports for major substances of abuse in 2005 (exhibit 3a). As with other street drugs, the drug abuse/other case type was most prevalent, 84.3 percent, with 13.9 percent of reports indicating the reason for the visit was seeking detox or treatment. Another 1.6 percent, 32 reports, were recorded as suicide attempts. These suicide case reports are likely indicative of polydrug use and the fact that data are duplicated across drugs, so that the case type may more logically be associated with another substance that was used concomitantly than with marijuana, which has an extremely high lethal dose level (i.e., low lethality).

As with other street drugs, most ED reports are for males, 70.5 percent. Almost one-half of reports did not include race data; of the documented reports, 39.6 percent of reports were for Caucasians and 8.5 percent were for African-Americans, a slightly higher proportion of African-Americans than the average for all major drugs. Marijuana patients included a relatively large proportion of adolescents, 9.2 percent, but the drug was reported by users across the spectrum of ages. Almost all reports with route of administration indicated smoking.

Cannabis is not incorporated into the determination of death by the Medical Examiner, it is however routinely screened for by the State Toxicology Laboratory when testing samples sent by the Medical Examiner. The toxicology data indicate the presence of a substance, *not* whether it contributed to the death. Cannabinoids were detected in 16 percent of deaths for which evidence was sent to the toxicology laboratory from 2000 through 2005.

Help Line callers frequently mentioned marijuana. A smaller proportion of adults than youth mentioned marijuana, 17 percent and 44 percent, respectively (exhibit 6). Marijuana is the most commonly mentioned drug by youth. Mentions appear to have remained steady over time.

Federal law enforcement seizures of marijuana totaled 9,875 kilograms in 2005, down somewhat from the prior 2 years, but much higher than in 2001 and 2002 (exhibit 7). Marijuana is grown throughout much of Washington in indoor and outdoor growing

operations. Substantial amounts of marijuana are brought southward across the U.S.-Canadian border, and Mexican grown marijuana is also available.

Cannabis was the third most commonly identified substance in NFLIS data for both the Seattle area and the rest of Washington State in FY 2005 (exhibit 8). In the Seattle area, 15.7 percent of seizures tested positive, compared with 13.9 percent for the rest of the State.

**Club Drugs—LSD, Psychedelic Mushrooms (Psilocybin), MDMA/Ecstasy**

Indicator data are notoriously poor for club drugs, given the relatively low level of acute morbidity and mortality associated with these drugs and the infrequency with which individuals are admitted to treatment to address a primary club drug problem. A small increase was seen in the number of MDMA-involved deaths, and law enforcement indicates continuing availability of MDMA throughout the regions. Help Line callers continue to mention MDMA. Large seizures of MDMA at the Canadian border are likely related to increased manufacturing in Canada and the use of the Northwest region as a transshipment point for MDMA.

Treatment data do not list specific club drugs as distinct categories. The category hallucinogens includes MDMA, LSD, and mushrooms (psilocybin). As a primary drug type, this category is rarely cited, with just 0.3 percent ( $n=34$ ) of people admitted to treatment in 2005 citing hallucinogens as their primary drug. However, it was more commonly cited as a secondary or tertiary drug, with another 252 persons mentioning such use in 2005. No substantive trends are evident over time.

Unweighted MDMA ED reports totaled just 143 in 2005, or 0.9 percent of major substances of abuse (exhibit 3a). A relatively large proportion were drug abuse/other case types, with 8.4 percent seeking detox or treatment. Psilocybin and LSD were also rarely reported, with 86 and 27 reports each, respectively.

Four deaths involving MDMA were recorded in 2005, the largest number since at least 1997. Previously, the most recorded in any 1 year was two, in 2004, 2001, and 2000. Among the nine MDMA-involved deaths prior to 2005, all had very similar patterns of drug use, either no other drug or just other stimulants (i.e., cocaine or methamphetamine) and, infrequently, alcohol. Interestingly, three of the four deaths in 2005 involved at least five drugs, including heroin or a prescription-type opiate, some other central nervous system depressant, and other substances.

The majority of all 13 MDMA-involved deaths were White, young adults, and males. What this new pattern of use indicates, admittedly in a very small group of users, is unclear.

Psilocybin and LSD have not been reported in any drug-caused deaths, and toxicology laboratory data do not indicate any deaths from any cause in which these substances were detected.

The number of Help Line calls regarding MDMA were at their peak in 2001 for both youth and adults, though the total numbers have never been large (exhibit 6). For adults, the number of mentions in 2005 was 44, similar to the preceding couple of years, representing just 1 percent of drug-related calls. For youth, the percentage of calls involving MDMA has increased to a level similar to the peak in 2001, 8 percent compared with 9 percent, with a smaller percentage in the intervening years. The actual number remains small, with 38 calls in 2005, compared with 24 in 2004. The total number of calls for all drugs by youth residing in King County has declined steadily since 2001.

Law enforcement sources indicate that MDMA has remained readily available in Seattle over the past several years. Meanwhile, the amount seized by Federal law enforcement, particularly at the U.S.-Canadian border, has increased substantially from 30,711 dosage units in 2001 to 1,745,096 in 2005 (exhibit 7). Though Washington ranks number one in Federal seizures throughout the U.S., it is believed that much of the MDMA is being shipped through the State. Also, MDMA is reportedly being produced in Canada, rather than Canada serving as a transshipment point for MDMA manufactured in Northern Europe as in the past.

**Benzodiazepines/Barbiturates**

Benzodiazepines and barbiturates appear to be secondary drugs of abuse. They are rarely mentioned as the primary drugs at treatment admission, but they are commonly cited in ED and mortality data.

Just 15 people cited benzodiazepines as their primary drug of abuse at treatment entry in 2005. However, it is more commonly mentioned as a secondary or tertiary drug, with 315 people reporting secondary or tertiary use in 2005. The number reporting any use of benzodiazepines has increased somewhat over time.

Barbiturates are rarely mentioned at treatment entry, whether as primary, secondary, or tertiary drugs, with just 38 people mentioning any use in 2005.

The combined category of benzodiazepines and sedatives totaled 2,112 unweighted ED reports in 2005 (exhibit 3b). Nearly 42 percent of the reports had a case type of drug abuse/other, followed by 23 percent for overmedication, 16 percent for suicide attempts, and 9 percent seeking detox or treatment. The proportion with case types of drug abuse/other is the smallest for any of the major drugs of abuse. Just 45 percent were males, also the smallest proportion for major drugs. A large proportion, 63 percent, were ages 35 and older, similar to prescription-type opiates and older than most other drug types. Virtually all reports indicated consumption via the oral route.

The rate of benzodiazepine-involved deaths was 2.5 deaths per 100,000 population in 2005, similar to 2004 and up from a dip seen from 1999 to 2001 (exhibit 4). The median age was 43.0, slightly higher than for all drug-involved deaths (exhibit 5). A relatively high proportion of females, 42.6 percent, made up such deaths. Caucasians constituted a larger proportion of benzodiazepine-involved deaths than any other class of drugs at 91.6 percent. A relatively large proportion of deaths were ruled as suicides, 16.3 percent, with another 11.0 percent undetermined. One-half of deaths also involved an illegal drug, the largest for any substance except alcohol.

The Help Line added a benzodiazepine category in 2003 to differentiate the drugs from the general prescription category in which they were included previously. In 2005, there were 102 adult calls involving benzodiazepines and 5 such youth calls.

HIDTA's survey of local law enforcement agencies indicates that 54 percent reported Valium (diazepam) was available on the street, and 38 percent reported Xanax (alprazolam) was available.

**INFECTIOUS DISEASES RELATED TO DRUG ABUSE AND INJECTION DRUG USE TRENDS**

Data for people diagnosed with HIV infection between 1981 and 2005 are presented in exhibit 10,

with trends summarized for 1997–2005. In King County, injection drug users (IDUs) with no other risk factors represented 6 percent of HIV diagnoses during the period from 2003 to 2005, statistically unchanged since 1997. Men who have sex with men (MSM) and also inject drugs (MSM/IDUs) represented 7 percent of HIV cases, unchanged over time.

Excepting MSM/IDUs, the rate of HIV infection among the 15,000–18,000 injection drug users who reside in King County has remained low and stable over the past 15 years. Various serosurveys conducted in methadone treatment centers and correctional facilities and through street and community-targeted sampling strategies over this period indicate that 4 percent or fewer of IDUs who are not MSM in King County are infected with HIV.

Syringes exchanged and numbers of encounters have remained high in King County, with 1,958,728 syringes exchanged and more than 53,300 encounters reported in 2005, a similar number of exchanges and somewhat lower number of encounters compared with 2004.

Hepatitis B and C are endemic among Seattle-area injectors. Epidemiologic studies conducted among more than 4,000 IDUs by Public Health's HIV-AIDS Epidemiology Program between 1994 and 1998 reveal that 85 percent of King County IDUs may be infected with hepatitis C (HCV), and 70 percent show markers of prior infection with hepatitis B (HBV). Local incidence studies indicate that 21 percent of non-infected IDUs acquire HCV each year, and 10 percent of IDUs who have not had hepatitis B acquire HBV.

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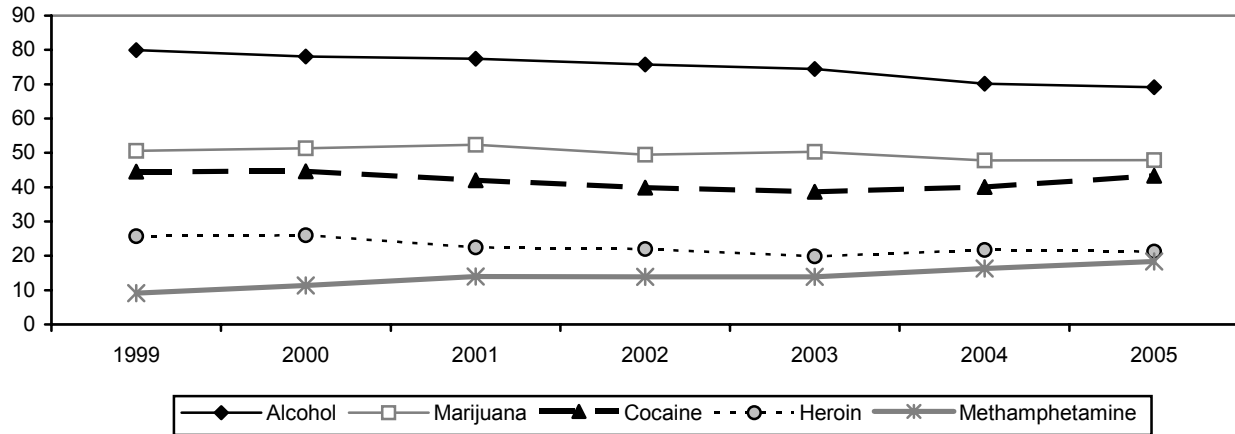
**Exhibit 1. DAWN ED Sample and Reporting Information for King and Snohomish Counties: January–December 2005**

Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
22	22	24	9-12	0-1	0-2	11-14

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department.  
SOURCE: DAWN Live!, OAS, SAMHSA, updated 5/16/06

**Exhibit 2a. Treatment Admissions<sup>1</sup> for Primary, Secondary, or Tertiary Use of Selected Drugs for Residents of King County, Washington, by Percent: 1999–2005**



	1999	2000	2001	2002	2003	2004	2005	Total # Drugs
Alcohol	79.9	78.1	77.4	75.7	74.4	70.2	69.1	53,188
Marijuana	50.6	51.3	52.4	49.5	50.3	47.8	47.9	35,490
Cocaine	44.5	44.6	42.0	39.9	38.7	40.1	43.3	29,885
Heroin	25.7	26.0	22.5	22.0	19.8	21.7	21.2	16,157
Methamphetamine	9.1	11.4	14.0	13.9	13.9	16.3	18.4	9,982
<b>Total Admits</b>	<b>9,845</b>	<b>10,479</b>	<b>9,761</b>	<b>8,871</b>	<b>8,878</b>	<b>11,279</b>	<b>12,803</b>	<b>71,196</b>

SOURCE: Washington State TARGET data system—Structured Ad Hoc Reporting System

**Exhibit 2b. Demographic Characteristics of King County Treatment Admissions, by Percent and Primary Drug: 2005**

Demographic Characteristic	Alcohol	Cocaine	Heroin	Methamphetamine	Prescription Opiates	Marijuana	Overall Percent
≤ 19 1 <sup>st</sup> use	90	40	41	56	38	97	69
Youth	6	1	0	5	3	40	10
Female	27	38	38	37	49	26	33
White	50	33	67	82	79	44	54
African-American	18	51	16	3	7	31	23
Asian/Pacific Islander	4	2	1	2	2	5	3
Native American	8	3	4	2	3	3	5
Hispanic	11	5	7	5	4	8	8
Total N	4,108	1,960	2,023	1,344	415	2,012	12,083

<sup>1</sup>Data include all ages, all treatment modalities, and Department of Corrections and private pay clients at opiate substitution treatment clinics. Data are duplicated, as many people mention multiple drugs.

SOURCE: Washington State TARGET data system—Structured Ad Hoc Reporting System

**Exhibit 3a. ED Reports for Selected Illicit Drugs, by Type of Case, Gender, Race, Age, and Percent (Unweighted<sup>1</sup>): 2005**

Drug	Total <sup>2</sup>	Cocaine	Heroin	Marijuana	Meth.	MDMA	LSD
<b>Total (N)</b>	<b>(15,888)</b>	<b>(4,646)</b>	<b>(2,391)</b>	<b>(1,968)</b>	<b>(1,928)</b>	<b>(143)</b>	<b>(27)</b>
<b>Total %</b>		<b>29.2</b>	<b>15.0</b>	<b>12.4</b>	<b>12.1</b>	<b>0.9</b>	<b>0.2</b>
Type of Case							
Suicide attempt	2.5	1.6	0.9	1.6	1.0	2.1	3.7
Seeking detox/treatment	15.2	15.4	16.5	13.9	15.9	8.4	7.4
Alcohol only (age < 21)	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Adverse reaction	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Overmedication	1.6	0.0	0.0	0.0	0.0	0.0	0.0
Malicious poisoning	0.4	0.1	0.0	0.2	0.4	2.1	0.0
Accidental ingestion	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Drug abuse/other	76.2	82.9	82.5	84.3	82.6	87.4	88.9
Gender							
Male	66.1	65.5	63.1	70.5	70.4	67.8	88.9
Race							
White	33.7	24.4	36.6	39.6	43.9	28.0	33.3
Black	7.9	12.9	4.6	8.5	3.2	9.8	0.0
Hispanic	1.4	1.3	0.8	1.6	1.7	0.7	0.0
Race/ethnicity NTA <sup>3</sup>	2.0	1.9	1.0	1.9	2.0	2.1	3.7
Not documented	54.9	59.5	57.0	48.4	49.1	59.4	63.0
Age							
12–17	4.8	1.1	0.5	9.2	3.7	16.8	7.4
18–20	8.1	3.3	3.3	12.1	8.9	32.9	14.8
21–24	10.2	7.2	7.3	15.8	15.9	17.5	40.7
25–29	13.6	11.5	14.7	15.3	20.9	18.2	11.1
30–34	11.9	11.3	15.3	10.9	15.4	7.7	11.1
35–44	30.0	37.7	30.8	23.0	25.3	4.9	11.1
45–54	17.9	23.1	23.5	10.5	8.6	2.1	3.7
55–64	3.2	4.1	4.1	2.6	1.2	0.0	0.0
65 and older	0.4	0.6	0.4	0.3	0.0	0.0	0.0

<sup>1</sup>All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change.

<sup>2</sup>Total=All DAWN “major substances of abuse” including several not shown, such as alcohol only and amphetamine; thus Total is more than the sum of data for substances shown.

<sup>3</sup>NTA=Not tabulated above.

SOURCE: DAWN, OAS, SAMHSA; updated 5/16/2006



**Exhibit 3b. ED Reports for Selected Prescription-Type Drugs, by Type of Case, Gender, Age, and Percent (Unweighted<sup>1</sup>): 2005**

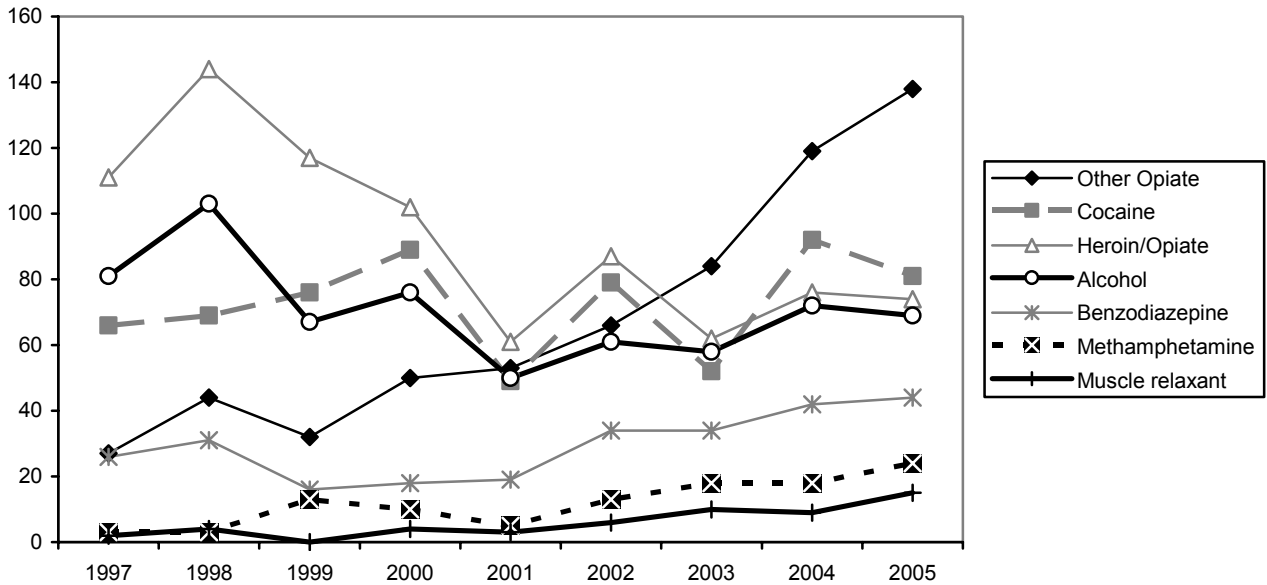
Drug	Benzodiazepine/ Sedative	Prescription Opiates	Subcategory of Prescription Opiates	
			Methadone	Oxycodone
<b>Total (N)</b>	<b>(2,112)</b>	<b>(3,201)</b>	<b>(739)</b>	<b>(849)</b>
Type of Case				
Suicide attempt	15.9	3.9	1.9	4.8
Seeking detox/treatment	9.3	13.4	8.7	22.5
Alcohol only (age < 21)	0.0	0.0	0.0	0.0
Adverse reaction	9.4	16.0	5.8	17.2
Overmedication	22.9	14.6	17.1	16.4
Malicious poisoning	0.1	0.1	0.0	0.0
Accidental ingestion	0.6	0.4	0.1	0.4
Drug abuse/other	41.7	51.7	66.4	38.8
Gender				
Male	44.6	48.0	53.3	48.3
Race				
White	39.4	42.6	31.5	52.2
Black	3.0	3.4	3.0	3.2
Hispanic	0.7	0.8	0.3	0.7
Race/ethnicity NTA <sup>2</sup>	1.4	2.3	1.6	2.8
Not documented	55.4	50.8	63.6	41.1
Age				
12–17	3.3	2.1	0.4	2.8
18–20	5.2	4.7	2.6	8.5
21–24	6.8	9.8	6.2	15.4
25–29	10.5	9.9	9.7	9.3
30–34	10.3	9.7	10.0	8.7
35–44	28.5	24.8	25.3	22.0
45–54	22.8	23.1	32.7	17.4
55–64	7.7	8.4	9.5	8.4
65 and older	4.0	6.8	3.4	7.1
Route of Administration				
Oral	34.8	29.4	18.7	44.9
Injected	0.6	2.0	1.2	0.7
Inhaled, sniffed, snorted	0.1	0.4	0.0	1.5
Smoked	0.1	0.3	0.1	0.9
Other	0.1	1.4	0.1	0.2
Not documented	64.3	66.4	79.8	51.7

<sup>1</sup>All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change.

<sup>2</sup>NTA=Not tabulated above.

SOURCE: DAWN, OAS, SAMHSA; updated 5/16/2006

**Exhibit 4. Number of Drug-Involved Deaths<sup>1</sup> in King County, Washington: 1997–2005**



Number of Times Drug Identified	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total by Drug
Other Opiate	27	44	32	50	53	66	84	119	138	613
Cocaine	66	69	76	89	49	79	52	92	81	653
Heroin/Opiate	111	144	117	102	61	87	62	76	74	834
Alcohol	81	103	67	76	50	61	58	72	69	637
Benzodiazepine	26	31	16	18	19	34	34	42	44	264
Methamphetamine	3	3	13	10	5	13	18	18	24	107
Muscle Relaxant	2	4	0	4	3	6	10	9	15	53
<b>Total Deaths</b>	<b>177</b>	<b>220</b>	<b>196</b>	<b>213</b>	<b>146</b>	<b>195</b>	<b>186</b>	<b>254</b>	<b>241</b>	<b>1,828</b>

<sup>1</sup>Data are duplicated, most deaths involve multiple drugs.  
SOURCE: Public Health-Seattle & King County, Medical Examiners Office

**Exhibit 5. Drug-Involved Deaths<sup>1</sup> in King County, by Demographics and Manner of Death: 1997–2005**

Demographic/ Manner of Death	All Drugs	Heroin/ Opiate	Cocaine	Alcohol	Prescription Opiate	Benzo- diazepine	Metham- phetamine	Muscle Relaxant
Number of Times Identified	1,828	834	653	637	613	264	107	53
Median Age	42.0	41.0	42.0	41.0	44.0	43.0	38.5	44.0
Female (%)	29.2	19.8	22.5	19.0	40.5	42.6	20.6	56.6
Race/Ethnicity (%)								
White	83.1	83.5	72.3	83.2	86.4	91.6	88.7	90.6
African-American	11.0	10.0	21.3	9.4	9.0	4.6	4.7	3.8
Asian/Pacific Islander	1.1	0.4	0.9	1.1	0.7	0.8	1.9	0.0
Native American	2.7	3.1	2.6	4.2	2.5	1.5	1.9	3.8
Hispanic	0.9	1.4	1.2	0.6	0.3	0.4	0.0	0.0
Other/mixed	1.3	1.6	1.7	1.4	1.1	1.1	2.8	1.9
Manner of Death (%)								
Accident	81.1	91.7	93.4	83.0	80.1	72.7	95.3	58.5
Suicide	10.8	2.6	2.0	9.7	10.6	16.3	0.9	22.6
Homicide	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Undetermined	8.0	5.5	4.4	7.2	9.3	11.0	3.8	18.9
Illegal Drug Present <sup>2</sup> (%)	65.5	...	...	66.1	36.1	50.0	...	34.0

<sup>1</sup>Most deaths involve multiple drugs, therefore data are duplicative.

<sup>2</sup>Illegal drugs=heroin/opiate, cocaine, methamphetamine.

SOURCE: Medical Examiner's Office, Public Health- Seattle & King County; analyzed by Alcohol and Drug Abuse Institute, University of Washington

**Exhibit 6. Drugs Mentioned in Calls by Adults and Youth to the Alcohol and Drug Help Line (Excluding Nicotine and Alcohol), by Percent: 2001–2005**

Name	Adult					Youth				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Rx (Prescription)	9.5	11.0	5.4	4.4	5.2	4.1	3.1	3.0	2.4	1.7
Methadone	2.0	2.0	3.2	3.9	4.2	0.5	0.0	0.4	0.0	0.6
Other	1.2	1.3	2.2	1.6	1.8	0.9	2.0	2.5	1.6	3.2
LSD	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.5	0.4
Marijuana	21.0	20.3	18.2	20.5	17.0	42.3	49.6	52.9	50.6	43.5
Inhalant	0.2	0.3	0.1	0.1	0.3	1.0	1.0	0.7	0.2	2.4
Unknown	9.1	11.2	2.5	2.1	4.9	11.3	11.0	3.7	3.8	2.6
Heroin	11.2	12.3	16.0	14.8	13.2	1.9	1.7	2.5	3.8	4.1
Cocaine	23.5	23.6	32.6	31.6	30.7	7.8	9.7	9.8	11.7	13.8
Ecstasy	2.5	1.4	1.0	1.2	1.2	8.7	4.9	3.3	4.4	8.2
Hallucinogens	0.6	0.6	0.6	0.8	0.3	3.8	1.0	2.5	1.6	2.6
PCP	0.1	0.1	0.1	0.3	0.1	0.0	0.0	0.4	0.5	0.0
Methamphetamine	18.2	15.6	17.9	18.4	20.9	17.0	15.5	17.3	17.7	16.2
OTC	0.4	0.2	0.3	0.2	0.3	0.6	0.6	1.2	0.9	0.4
<b>Total (N)</b>	<b>(4,639)</b>	<b>(4,760)</b>	<b>(3,508)</b>	<b>(3,978)</b>	<b>(3,567)</b>	<b>(1,162)</b>	<b>(711)</b>	<b>(571)</b>	<b>(547)</b>	<b>(464)</b>

SOURCE: Washington State Alcohol/Drug Help Line

**Exhibit 7. Local Law Enforcement Seizure Drug Test Results in Seattle and the State of Washington:  
FYs 2003–2005**

<b>Seattle-Area Lab</b>				<b>WA State Without Seattle-Area Lab</b>			
	<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>		<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>
Acetaminophen	0.3	0.2		Acetaminophen	0.2	0.1	
Alprazolam	0.3	0.1	0.2	Alprazolam	0.2	0.2	0.2
Amphetamine	0.3	0.2	0.2	Amphetamine	0.3	0.4	0.3
Buprenorphine			0.1	Buprenorphine			
Caffeine	0.3	0.2	0.0	Caffeine	0.2	0.2	
Cannabinol				Cannabinol	0.2		
<b>Cannabis</b>	<b>17.2</b>	<b>15.3</b>	<b>15.7</b>	<b>Cannabis</b>	<b>15.5</b>	<b>15.6</b>	<b>13.9</b>
Carisoprodol	0.3		0.1	Carisoprodol	0.2	0.1	0.1
Cathinone	0.3		0.1	Cathinone			
Clonazepam	0.5	0.3	0.5	Clonazepam	0.3	0.3	0.3
<b>Cocaine</b>	<b>40.5</b>	<b>40.4</b>	<b>38.3</b>	<b>Cocaine</b>	<b>20.6</b>	<b>18.2</b>	<b>19.8</b>
Codeine	0.2		0.2	Codeine	0.2	0.1	0.2
Diazepam	0.4	0.3	0.6	Diazepam	0.4	0.3	0.4
Dimethyl Sulfone			0.1	Dimethyl Sulfone			0.1
<b>Heroin</b>	<b>5.0</b>	<b>4.7</b>	<b>5.6</b>	<b>Heroin</b>	<b>6.5</b>	<b>4.8</b>	<b>5.2</b>
Hydrocodone	0.7	0.9	1.1	Hydrocodone	1.1	1.3	1.3
Hydromorphone		0.1	0.1	Hydromorphone			0.1
Ibuprofen				Ibuprofen		0.1	0.1
Ketamine	0.1			Ketamine			
Lorazepam		0.1	0.2	Lorazepam			0.2
MDA	0.3	0.3	0.1	MDA	0.1		
MDMA	1.4	1.0		MDMA	0.5	0.5	0.1
Methadone	0.4	0.7	1.2	Methadone	0.4	0.6	0.7
<b>Methamphetamine</b>	<b>27.2</b>	<b>29.4</b>	<b>31.4</b>	<b>Methamphetamine</b>	<b>47.8</b>	<b>51.7</b>	<b>53.2</b>
Methandrosthenolone (Methandienone)	0.1			Methandrosthenolone (Methandienone)			
Methylphenidate		0.3	0.2	Methylphenidate	0.1	0.1	0.1
Morphine	0.2	0.3	0.5	Morphine	0.3	0.4	0.4
Non-Controlled Non- Narcotic Drug	0.3	0.3		Non-Controlled Non- Narcotic Drug	0.5	0.7	
Oxycodone	0.9	1.4	1.8	Oxycodone	1.2	1.1	1.7
PCP	0.9	0.6	0.2	PCP			
Propoxyphene		0.1		Propoxyphene		0.1	0.1
Pseudoephedrine	0.7	0.4	0.5	Pseudoephedrine	0.8	0.7	0.5
Psilocin	0.7	0.6	0.3	Psilocin	0.5	0.7	0.5
Psilocybine		0.3	0.3	Psilocybine	0.3	0.2	0.2
Sodium Bicarbonate				Sodium Bicarbonate	0.2	0.2	
Temazepam			0.1	Temazepam			
Testosterone			0.1	Testosterone			
Zolpidem			0.1	Zolpidem			
<b>Total of Top 25 (No.)</b>	<b>99.25 (3,188)</b>	<b>98.83 (3,454)</b>	<b>100.0 (3,702)</b>	<b>Total of Top 25 (No.)</b>	<b>98.62 (12,162)</b>	<b>98.63 (11,926)</b>	<b>100.0 (12,309)</b>
<b>Sub-totals</b>				<b>Sub-totals</b>			
Other opiates	2.43	3.55	4.97	Other opiates	3.25	3.51	4.39
Benzodiazepines	1.18	0.93	1.48	Benzodiazepines	0.85	0.81	1.12

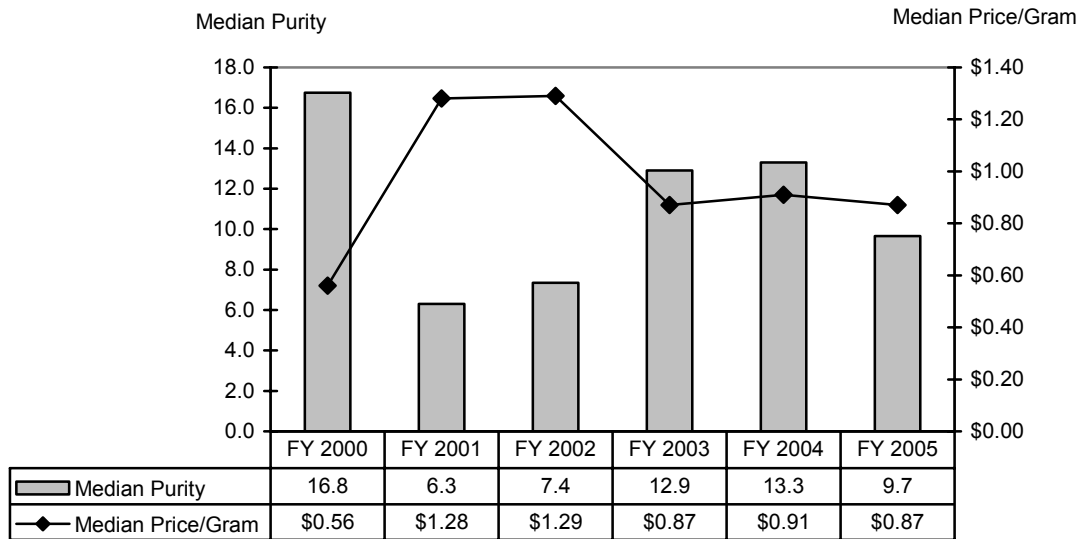
SOURCE: NFLIS, DEA

**Exhibit 8. Federal-Wide Drug Seizure System (FDSS) Data for Washington State: 2001–2005**

Drug	Units	2001	2002	2003	2004	2005
Marijuana	Kilograms	4,105	5,606	10,060	11,581	9,875
Cocaine	Kilograms	123	263	475	318	521
Heroin	Kilograms	15	82	15	36	8
Methamphetamine	Dosage Units	9,908	256	992	450	53,199
	Kilograms	47	41	206	83	76
MDMA	Dosage Units	30,711	79,751	6,641	510,374	1,745,096
	Kilograms	19	0	0	70	3

SOURCE: Northwest High Intensity Drug Trafficking Area

**Exhibit 9. Heroin Price and Purity for Seattle: FY 2000–FY 2005**



SOURCE: DMP, DEA

**Exhibit 10. Demographic Characteristics of King County Residents Diagnosed, by Date of HIV Diagnosis: 1981–2005**

	1981–1996		1997–1999		2000–2002		2003–2005 <sup>1</sup>		Trend <sup>2</sup>
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	1997–2005
<b>Total</b>	<b>6,765</b>	<b>(100)</b>	<b>1,048</b>	<b>(100)</b>	<b>1,188</b>	<b>(100)</b>	<b>986</b>	<b>(100)</b>	
<b>HIV Exposure Category</b>									
Men who have sex with men (MSM)	5,134	(76)	723	(69)	750	(63)	630	(64)	down
Injection drug user (IDU)	376	(6)	62	(6)	87	(7)	57	(6)	0
MSM-IDU	726	(11)	86	(8)	92	(8)	67	(7)	0
Heterosexual contact	227	(3)	68	(6)	149	(13)	89	(9)	up
Blood product exposure	90	(1)	5	(0)	7	(1)	5	(1)	0
Perinatal exposure	23	(0)	3	(0)	2	(0)	0	(0)	0
<i>SUBTOTAL- known risk</i>	<i>6,576</i>		<i>947</i>		<i>1,087</i>		<i>848</i>		
Undetermined/other <sup>3</sup>	189	(3)	101	(10)	101	(9)	138	(14)	up
<b>Sex &amp; Race/Ethnicity</b>									
<b>Male</b>	<i>6,404</i>	<i>(95)</i>	<i>940</i>	<i>(90)</i>	<i>1,040</i>	<i>(88)</i>	<i>878</i>	<i>(89)</i>	<i>0</i>
White male <sup>4</sup>	5,300	(78)	663	(63)	696	(59)	543	(55)	down
Black male <sup>4</sup>	577	(9)	126	(12)	172	(14)	157	(16)	up
Hispanic male	335	(5)	105	(10)	112	(9)	107	(11)	0
Other male <sup>4</sup>	192	(3)	46	(4)	60	(5)	71	(7)	up
<b>Female</b>	<i>361</i>	<i>(5)</i>	<i>108</i>	<i>(10)</i>	<i>148</i>	<i>(12)</i>	<i>108</i>	<i>(11)</i>	<i>0</i>
White female <sup>4</sup>	197	(3)	42	(4)	49	(4)	28	(3)	0
Black female <sup>4</sup>	110	(2)	55	(5)	70	(6)	63	(6)	0
Hispanic female	23	(0)	4	(0)	15	(1)	10	(1)	0
Other female <sup>4</sup>	31	(0)	7	(1)	14	(1)	7	(1)	0
<b>Race/Ethnicity</b>									
White <sup>4</sup>	5,497	(81)	705	(67)	745	(63)	571	(58)	down
Black <sup>4</sup>	687	(10)	181	(17)	242	(20)	220	(22)	up
Hispanic	358	(5)	109	(10)	127	(11)	117	(12)	0
Asian & Pacific Islander <sup>4</sup>	104	(2)	29	(3)	42	(4)	36	(4)	0
Native American or Alaskan Native <sup>4</sup>	95	(1)	17	(2)	17	(1)	15	(2)	0
Multiple Race <sup>4</sup>	22	(0)	2	(0)	11	(1)	15	(2)	up
Unknown Race <sup>4</sup>	2	(0)	5	(0)	4	(0)	12	(1)	up
<b>Place of Birth<sup>5</sup></b>									
Born in U.S. or Territories	6,256	(92)	831	(79)	917	(77)	740	(75)	0
Born outside U.S.	373	(6)	147	(14)	234	(20)	206	(21)	up
Birthplace unknown	136	(2)	70	(7)	37	(3)	40	(4)	down
<b>Age at diagnosis of HIV</b>									
0–19 years	125	(2)	20	(2)	18	(2)	8	(1)	0
20–24 years	549	(8)	66	(6)	96	(8)	80	(8)	0
25–29 years	1,369	(20)	181	(17)	168	(14)	127	(13)	down
30–34 years	1,618	(24)	260	(25)	263	(22)	176	(18)	down
35–39 years	1,375	(20)	233	(22)	279	(23)	232	(24)	0
40–44 years	829	(12)	143	(14)	183	(15)	175	(18)	up
45–49 years	472	(7)	74	(7)	90	(8)	104	(11)	up
50–54 years	215	(3)	43	(4)	58	(5)	46	(5)	0
55–59 years	131	(2)	16	(2)	18	(2)	23	(2)	0
60–64 years	47	(1)	4	(0)	9	(1)	7	(1)	0
65 + years	35	(1)	8	(1)	6	(1)	8	(1)	0
<b>Residence</b>									
Seattle residence	5,887	(87)	878	(84)	966	(81)	756	(77)	down
King Co. residence outside Seattle	878	(13)	170	(16)	222	(19)	230	(23)	up

<sup>1</sup>Due to delays in reporting, data from recent years are incomplete.

<sup>2</sup>Statistical trends (p<.05) were identified from the chi-square test for trend, calculated for the periods 1997–99, 2000–02, and 2003–05.

<sup>3</sup>Includes persons for whom exposure information is incomplete (due to death, refusal to be interviewed, or loss to follow-up), patients still under investigation, patients whose only risk was heterosexual contact and where the risk of the sexual partner

<sup>4</sup>And not Hispanic. The groups Asian, Native Hawaiian & other Pacific Islanders were grouped due to small cell sizes. All race and ethnicity categories are mutually exclusive.

<sup>5</sup>Among cases where country of birth is known  
SOURCE- Public Health- Seattle & King County

# Substance Abuse Trends in Texas

Jane Carlisle Maxwell, Ph.D.<sup>1</sup>

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## ABSTRACT

*Cocaine is the primary illicit drug for which Texans enter treatment, and it is a major problem on the border with Mexico. Indicators of cocaine use remain stable or are increasing slightly, although methamphetamine and ice are becoming more popular than cocaine in some areas. This has resulted in shifting cocaine marketing tactics. Crack cocaine admissions are more likely to be White or Hispanic. Heroin indicators are stable or dropping; addicts entering treatment are primarily injectors. Heroin purity is increasing, and 'Cheese,' a mixture of Tylenol PM and 1 percent heroin, has been reported in the Dallas schools. Hydrocodone is a larger problem than oxycodone or methadone, and fentanyl indicators fluctuate from year to year. Methadone indicators are increasing, and these users are predominately White. More adverse events appear to be due to methadone pain pills. Codeine cough syrup, 'Lean,' continues to be abused. Marijuana indicators are mixed, and treatment admissions with criminal justice problems are less impaired than those who are referred from other sources. Methamphetamine is a growing problem across the State, and smoking ice is now the major route of administration for persons entering treatment. Most of the ice and methamphetamine are made in Mexico, but local laboratories are using different ingredients to replace the pseudoephedrine that is becoming more limited in supply. Abuse of alprazolam (Xanax) and carisoprodol (Soma) is increasing. All indicators of ecstasy use are increasing as the drug spreads from the club scene to 'the street.' GHB and GBL remain problems, particularly in the Dallas/Fort Worth Metroplex area. PCP indicators are stable or rising, and dextromethorphan is abused by adolescents. Different types of inhalants are used by different users. HIV and AIDS cases are more likely to be persons of color, and the proportions of HIV and AIDS cases related to male-to-male sex are increasing. The heterosexual mode of transmission now exceeds injection drug use.*

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## INTRODUCTION

### Area Description

The population of Texas in 2006 was 23,464,827, with 49 percent White, 12 percent Black, 36 percent Hispanic, and 4 percent "Other." Illicit drugs continue to enter from Mexico through cities such as El Paso, Laredo, McAllen, and Brownsville, as well as through smaller towns along the border. The drugs then move northward for distribution through Dallas/Fort Worth and Houston. In addition, drugs move eastward from San Diego through Lubbock and from El Paso to Amarillo and Dallas/Fort Worth.

### Data Sources

*Substance Abuse Trends in Texas* is an ongoing series that is prepared every 6 months as a report for the Community Epidemiology Work Group meetings sponsored by the National Institute on Drug Abuse (NIDA). This report updates the January 2006 report. To compare the June 2006 report with earlier periods, please access <<http://www.utexas.edu/research/cswr/gcattc/drugtrends.html>>.

All data included in this report are reviewed for quality control. Based on this review, cases may be corrected, deleted, or added. Therefore, these data are subject to change. The information on each drug is discussed in the following order of sources:

- **Student substance use data** for 2004 came from the *Texas School Survey of Substance Abuse: Grades 7-12, 2004* and the *Texas School Survey of Substance Abuse: Grades 4-6, 2004*, which are published by the Department of State Health Services (DSHS), formerly the Texas Commission on Alcohol and Drug Abuse. For 2005, the data for high school students in grades 9–12 came from the Youth Risk Behavior Surveillance (YRBS)—United States, 2005, *MMWR Surveillance Summaries*, June 9, 2006/55(SS05); 1-108.
- **Use by Texans age 12 and older data** came from the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Surveys on Drug Use and Health (NSDUH). The State and metropolitan estimates of use of illicit drugs lifetime, past year, and past month for the population age 12 and older are based on the 2003–2004 surveys, and the regional estimates are based on the 1999–2001 surveys.
- **Poison control center data** came from the Texas Poison Center Network, DSHS, for 1998 through 2005. Analysis was provided by Mathias

Forrester, epidemiologist with the Texas Poison Center Network, and by the author. In addition, findings from five papers authored by Forrester were used in this report: “Carisoprodol Abuse in Texas, 1998-2003,” “Flunitrazepam Abuse and Malicious Use in Texas, 1998-2003,” “Oxycodone Abuse in Texas, 1998-2003,” “Methylphenidate Abuse in Texas, 1998-2004,” and “Alprazolam Abuse in Texas: 1998-2004,” *Journal of Toxicology and Environmental Health, Part A*, 69:237–243, 2006.

- **Emergency department (ED) data** for 2005 came from Drug Abuse Warning Network (DAWN) *Live!*, a restricted access online query system, administered by the Office of Applied Studies (OAS), SAMHSA. The data are preliminary and unweighted and, following quality control review, are subject to change. There are 40 eligible hospitals in the Houston area and 42 EDs that participate in DAWN (some hospitals have more than 1 ED). The data, however, are incomplete. Between 12 and 14 EDs reported each month during 2005 (exhibit 1). Data presented in this paper represent reports that were received by DAWN as of April 21, 2006. Drug reports exceed the number of ED visits since a patient may report use of multiple drugs (up to six plus alcohol). The 2005 DAWN *Live!* data are not estimates for the Houston area and cannot be used for comparison with future data. Only weighted estimates from SAMHSA can be used in trend analysis. A full description of the DAWN system can be found at <<http://dawn.info.samhsa.gov>>.
- **Treatment data** were provided by DSHS’s client data system on clients admitted to treatment in DSHS-funded facilities from January 1, 1987, through December 31, 2005. For most drugs, the characteristics of clients entering with a primary problem with the drug are discussed, but in the case of club drugs, information is provided on any client with a primary, secondary, or tertiary problem with that drug. Analysis was by the author. Data on substance use on the border was also drawn from Maxwell, J.C. et al., “Drug Use and Risk of HIV/AIDS on the Mexico-USA Border: A Comparison of Treatment Admissions in Both Countries,” *Drug and Alcohol Dependence*, 82 *Suppl.* 1, S85-S93. Analysis of driving while intoxicated (DWI) admissions to treatment is from Maxwell, J. C., Impaired Drivers at Admission to Substance Abuse Treatment, a poster presented at the 2006 meeting of the Research Society on Alcoholism.
- **Information on drug-involved deaths** through 2004 came from death certificates from the Bureau of Vital Statistics, DSHS; analysis was by the author. Because justices of the peace, who have no medical training, can sign death certificates, the actual drugs involved may not be reported, but instead a notation such as “drug abuse” is used. Deaths in which the actual substance is not reported are not included in the data in this paper, and the 2003 death cases appear to be underreported by DSHS. Findings are also presented from Maxwell, J.C., Pullum, T.W., and Tannert, K. “Deaths of Clients in Methadone Treatment in Texas: 1994-2002,” *Drug and Alcohol Dependence*, 78(1); 73-82, 2005.
- **Drug and alcohol arrest data** come from the Uniform Crime Reports of the Texas Department of Public Safety (DPS).
- **Information on drugs identified by laboratory tests** are from the Texas Department of Public Safety, which reported results from toxicological analyses of substances submitted in law enforcement operations for 1998 through December 2005, 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 April 16, 2006.
- **Information on forms of methadone** is from DEA’s Automation of Reports and Consolidated Orders System (ARCOS).
- **Price, purity, trafficking, distribution, and supply** information was provided by second quarter fiscal year (FY) 2006 reports on trends in trafficking from the Dallas, El Paso, and Houston Field Divisions of the DEA and from DEA’s 2005 Domestic Monitor Program (DMP).
- **Reports by users and street outreach workers** on drug trends for 2006 were reported to DSHS by workers at local human immunodeficiency virus (HIV) counseling and testing programs across the State.
- **Sexually transmitted disease (STD), HIV, and acquired immunodeficiency syndrome (AIDS) data** were provided by DSHS for annual periods through December 2005, and the HIV cases exclude any which later seroconverted to AIDS. Data also come from Maxwell, J.C., and Spence, R.T. (2006), An exploratory study of inhalers and injectors who used black tar heroin, *Journal of Maintenance in the Addictions*, 3(1), 61–81.



## DRUG ABUSE PATTERNS AND TRENDS

**Cocaine/Crack**

The *Texas School Survey of Substance Abuse: Grades 7-12, 2004* reported that lifetime use of powder and crack cocaine had dropped from a high of 9 percent in 1998 to 8 percent in 2004, while past-month use dropped from 4 percent in 1998 to 3 percent in 2004. Some 7.0 percent of students in nonborder counties had ever used powder or crack cocaine, and 2.5 percent had used it in the past month. In comparison, students in schools on the Texas border reported higher levels of cocaine use (exhibit 2): 13 percent lifetime and 6 percent past-month use. The 2005 YRBS reported that 12 percent of Texas high school students (grades 9–12) had ever used cocaine, and 6 percent had used in the past month.

The 2003–2004 NSDUH estimated that 2.4 percent of Texans age 12 and older had used any form of cocaine in the past year, and 0.4 percent had used crack cocaine. The past-year proportions for the Dallas-Fort Worth metropolitan statistical area were 1.9 percent for all forms of cocaine and 0.5 percent for crack cocaine, while in the Houston metropolitan area, the proportions were 1.9 percent for cocaine and 0.2 percent for crack cocaine. The past-year use in the regions, based on the 1999, 2000, and 2001 NSDUH, was highest at 2.4 percent in the Central Texas, West Central Texas, Permian Basin, and Nortex regions and lowest in the East Texas region at 1.7 percent.

Texas Poison Control Center calls involving the use of cocaine increased from 497 in 1998 to 1,275 in 2005 (exhibit 3). Some 65 percent of the cases in 2005 were male, and the average age was 30.5.

Cocaine is the major illicit drug in terms of unweighted DAWN ED reports. It represented 54 percent of the illicit drug reports in Houston, with 65 percent of the patients being male, 30 percent White, 47 percent Black, and 20 percent Hispanic. Nineteen percent were younger than 25, 25 percent were 25–34, and 55 percent were 35 or older.

Cocaine (crack and powder together) represented 26 percent of all admissions to DSHS-funded treatment programs in 2005, down from 32 percent in 1995 (exhibit 3). Abusers of powder cocaine made up 11 percent of all admissions to treatment. Among all cocaine admissions, cocaine inhalers were the youngest and most likely to be Hispanic and involved in the criminal justice or legal systems (exhibit 4). Cocaine injectors were older than

inhalers but younger than crack smokers; they were most likely to be White (exhibit 3).

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 average 9 years between first regular use and entrance to treatment, while injectors average 16 years of use before they enter treatment.

Between 1987 and 2005, the percentage of Hispanic treatment admissions using powder cocaine increased from 23 to 52 percent, while for Whites and Blacks, it dropped from 48 to 32 percent, and from 28 to 14 percent, respectively. Exhibit 5 shows these changes by route of administration. It also shows the proportion of Black crack cocaine admissions fell from 75 percent in 1993 to 47 percent in 2005, while the proportion of Whites increased from 20 percent in 1993 to 35 percent in 2005. Hispanic admissions rose from 5 to 17 percent in the same time period.

Cocaine is a problem on the border. Twenty-six percent of all admissions to programs on the Texas side and 22 percent of all admissions on the Mexico side in 2003 were for powder or crack cocaine. Some 34 percent of the Texas cocaine admissions and 26 percent of the Mexican cocaine admissions smoked crack cocaine (Maxwell et al. 2006).

The number of deaths statewide in which cocaine was mentioned increased from 223 in 1992 to 699 in 2004 (exhibit 6). The average age of the decedents in 2004 was 40; 43 percent were White, 25 percent were Hispanic, and 32 percent were Black. Seventy-seven percent were male.

Exhibit 3 shows that the proportion of substances identified as cocaine by the DPS labs is decreasing. In 1998, cocaine accounted for 40 percent of all items examined, compared with 32 percent in 2005.

The purity of cocaine examined in all the NFLIS labs in Texas increased from 69.9 percent in 2004 to 71.1 percent in 2005. In the Dallas DEA Field Division, the purity of seized cocaine increased from 60.9 percent in the first quarter of FY 2006 to 70.6 percent in the second quarter, and the DEA reports there is an abundance of powder and base cocaine in ounce, gram, and kilogram quantities. In Tyler, cocaine is being sold in smaller quantities, and organizations are now willing to “front” cocaine to street dealers. This may be due to dealers attempting to increase sales of cocaine. Currently, methamphetamine is the drug of choice in Tyler, and cocaine dealers have to compete to move their product. Crack

organizations are also reported to be moving away from distributing crack and selling the more profitable methamphetamine and ice. Crack continues to be popular in South Dallas and Oak Cliff.

According to the El Paso DEA Field Division, cocaine is trafficked to the Chicago/Northwest Indiana area. It is also smuggled into the United States through Presidio from Ojinaga, Mexico, and either sold locally or transported to the Midland/Odessa area.

The Houston DEA reports a slight decrease in the price of cocaine. It is readily available throughout the Houston DEA Field Division area, and crack cocaine is manufactured throughout the area, except in the Laredo district. Crack is distributed by single individuals or loose-knit organizations.

Cocaine continued to be readily available, and the price range expanded in the second half of 2005 (exhibit 7). A gram of powder cocaine costs \$50–\$80 in Dallas, \$50–\$60 in El Paso, and \$100 in Amarillo and Lubbock. An ounce costs \$400–\$600 in McAllen, \$400–\$650 in Houston, \$500–\$600 in Austin, \$400–\$700 in Midland, \$550 in El Paso, \$400–\$650 in Houston, \$500–\$700 in San Antonio, \$400–\$500 in Laredo, \$600–\$950 in Dallas, \$500–\$900 in Waco, \$650–\$850 in Amarillo, \$500–\$850 in Lubbock, \$700–\$1,000 in Tyler, and \$600–\$750 in Fort Worth.

Across the State, a rock of crack costs \$10–\$50, with \$10–\$20 being the most common price. An ounce of crack cocaine costs \$325–\$550 in Houston, \$500 in Galveston, \$400–\$600 in San Antonio, \$400–\$600 in Austin, \$550 in Waco, \$700–\$1,100 in Dallas, \$450–\$550 in Tyler, \$750 in Beaumont, \$450–\$1,000 in Amarillo and Lubbock, \$500 in El Paso, \$800 in Midland, \$500 in McAllen, and \$650–\$750 in Fort Worth.

In Austin, crack cocaine is reported as plentiful in East Austin but not of good quality, since it is being cut and recut with baking soda. Users report they are not getting “high” and are unsure of what they are buying. Something referred to as “Raid” crack is also being sold, and when it is smoked, it is reported to be making people “angry.” In the Gulf Coast area, crack users are now reported to be injecting crack.

### **Alcohol**

Alcohol is the primary drug of abuse in Texas. In 2004, 68 percent of Texas secondary school students (grades 7–12) had ever used alcohol, and 33 percent had drunk alcohol in the last month. Of particular

concern is heavy consumption of alcohol, or binge drinking, which is defined as drinking five or more drinks at one time. In 2004, 15 percent of all secondary students said that when they drank, they usually drank five or more beers at one time, and 13 percent reported binge drinking of liquor. Binge drinking increased with grade level. Among seniors, 27 percent binged on beer and 21 percent binged on liquor. While the percentage of binge drinking of beer has fallen over the years, the level of binge drinking of hard liquor has remained relatively stable since 1994 (exhibit 8).

Among students in grades 4–6 in 2004, 25.5 percent had ever drunk alcohol, and 16.1 percent had drunk alcohol in the past school year. Use increased with grade level, as 11.6 percent of 4th graders had used alcohol in the school year, compared with 22.2 percent of 6th graders.

The 2005 YRBS reported 80 percent of Texas high school students in grades 9–12 had ever drunk alcohol, 47 percent had drunk in the past month, and 30 percent had drunk five or more drinks in a row in the last month. Some 33 percent of boys and 26 percent of girls reported this binge drinking behavior.

The 2003–2004 NSDUH estimated that 46.8 percent of Texans age 12 and older had drunk alcohol in the past month, and 23.6 percent had drunk five or more drinks on at least 1 day (binge drinking) in the past month. Past-month alcohol use was highest in the Central Texas region at 49.2 percent and lowest in the South Texas and Lower Rio Grande region at 35.3 percent; binge drinking was highest in the Central Texas region at 26.1 percent and lowest in the Dallas-Fort Worth region at 19.9 percent.

Of the unweighted Houston DAWN ED reports in 2005, 544 reports involved use/abuse of alcohol alone or alcohol-in-combination by patients younger than 21. Of the reports involving minors, 44 percent were younger than 18.

In 2005, 24 percent of all clients admitted to publicly funded treatment programs had a primary problem with alcohol (exhibit 35). The characteristics of alcohol admissions have changed over the years. In 1988, 82 percent of the clients were male, compared with 66 percent in 2005. The proportion of White clients declined from 63 percent in 1988 to 57 percent in 2005, and the proportion of Hispanic clients barely increased from 28 to 29 percent. During the same period, the proportion of Black clients increased from 7 to 12 percent. The average age increased from 35 to 37. The proportion of

alcohol clients reporting no secondary drug problem dropped from 67 to 53 percent, but the proportion with a problem with cocaine (powder or crack) increased from 7 to 23 percent. Consuming cocaine and alcohol at the same time produces cocaethylene, which intensifies cocaine's euphoric effects.

The alcohol clients were among the oldest (average age of 37), and they more likely to be male than other admissions. Of the 13,374 alcohol admissions in 2005, 998 (7 percent) were younger than 21. Of these minors, the average age was 17 and the average age of first use was 13.5. Sixty-nine percent of the minors admitted for a primary problem with alcohol were referred to treatment by the criminal justice or legal system; 65 percent were male; 57 percent were Hispanic; 34 percent were White; and 6 percent were Black. Minors entering programs for alcohol treatment were more likely to report problematic use of other substances: 64 percent reported a second drug of abuse. Among adults, 45 percent reported a second problem. Marijuana was a second problem for 48 percent of minors and 12 percent of adults; powder cocaine was a problem for 11 percent of minors and 12 percent of adults; and crack cocaine was a problem for 1 percent of minors and 12 percent of adults.

A study of more than 44,000 adult Texans who entered treatment as a result of a past-year DWI arrest or DWI probation between 1996 and 2005 found the proportion of DWI admissions with a primary problem with alcohol had decreased from 75 percent in 1996 to 66 percent in 2005 (Maxwell 2006). Some 63 percent of those with a primary problem with alcohol reported no second drug problem, compared with only 23 percent of those with a primary problem with drugs. Some 48 percent of all the DWI admissions were first admissions, and 25 percent had a history of injection drug use. The average age was 35.7; 73 percent were male; and 60 percent were White.

Seventy percent of the clients completed treatment. Of those who did, 91 percent were abstinent in their last 30 days of treatment, compared with 57 percent of those who did not complete treatment. Those who completed treatment stayed in treatment longer (62 vs. 56 days), had significantly fewer DWI arrests at followup 90 days after leaving treatment (0.02 v 0.04 arrests), and reported fewer days of use of their problem substance at followup (1.4 days vs. 3.5 days). Those entering treatment after their first DWI arrest were less impaired at admission than those with more than one arrest, and their levels of substance use were lower. At discharge, those with more than two arrests were less likely to complete

treatment. The levels of severity on the Addiction Severity Index (ASI) and days used decreased for all patients.

More Texans are arrested for public intoxication (PI) than for any other substance abuse offense, although the arrest rate for PI per 100,000 population is decreasing (exhibit 9).

### Heroin

The proportion of Texas secondary students reporting lifetime use of heroin dropped from 2.4 percent in 1998 to 1.6 percent in 2004. Past-month use dropped from 0.7 percent in 1998 to 0.5 percent in 2004. The 2005 YRBS found 3 percent of Texas high school students had ever used heroin.

The 2002–2004 NSDUH reported 0.1 percent of Texans age 12 and older had used heroin in the past year. In the Dallas/Fort Worth metropolitan area, 0.2 percent reported past-year use, while in the Houston metropolitan area, 0.0 percent reported past-year use.

Calls to Texas Poison Control Centers involving confirmed exposures to heroin ranged from 181 in 1998 to a high of 296 in 2000; calls dropped to 179 in 2005 (exhibit 10). Nine percent of the 2005 heroin exposures involved inhalation (snorting or smoking).

Heroin represented 2.5 percent of the unweighted DAWN ED illicit drug reports in Houston in 2005 (157 cases). Some 73 percent were male; 13 percent were younger than 25; 29 percent were age 25–34; and 57 percent were 35 and older.

Heroin is the primary drug of abuse for 9 percent of clients admitted to treatment. The characteristics of these addicts vary by route of administration, as exhibit 11 illustrates. Most heroin addicts entering treatment inject heroin. While the number of individuals who inhale heroin is small, note that the lag period between first use and seeking treatment for this group is 8 years, compared with 16 years for injectors. This shorter lag period means that, contrary to the street rumors that “sniffing or inhaling is not addictive,” inhalers can become addicted. They will either enter treatment sooner while still inhaling, or they will shift to injecting, thus increasing their risk of hepatitis C and HIV infection, becoming more impaired, and entering treatment later.

Exhibit 12 shows that the proportion of treatment clients who are Hispanic has increased since 1996. Since then, more than one-half of the admissions have been Hispanic.

In 2004, there were 415 deaths in Texas in which the death certificate included a mention of heroin, narcotics, opiates, or morphine (terms used by justices of the peace were not always as specific as desired). Some 62 percent were White, 30 percent were Hispanic, and 8 percent were Black; 75 percent were male. The average age was 39 (exhibit 13).

Exhibit 10 shows that the proportion of items identified as heroin by DPS labs has remained low at 1–2 percent over the years.

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. Exhibit 14 shows the decline in price over the years. Depending on the location, black tar heroin sells on the street for \$10–\$20 per capsule, \$100–\$300 per gram, \$1,000–\$4,500 per ounce, and \$25,000–\$40,000 per kilogram. An ounce of Black Tar costs \$1,000–\$1,500 in Dallas, \$1,200–\$1,700 in Fort Worth, \$1,000 in El Paso, \$3,600–\$4,000 in Midland, \$3,500–\$4,500 in Lubbock, \$2,300–\$2,500 in Houston, \$2,000–\$2,600 in Galveston, \$1,300 in Laredo, \$700–\$1,400 in McAllen, \$1,400–\$1,600 in Austin, and \$1,200–\$1,600 in San Antonio.

Mexican brown heroin, which is black tar that has been cut with lactose or another substance and then turned into a powder to inject or snort, costs \$10 per cap and \$80–\$300 per gram. An ounce costs \$500–\$800 in San Antonio, \$800 in McAllen, \$800–\$1,600 in Dallas, \$1,200–\$1,500 in Houston, \$1,400–\$1,600 in Austin, and \$3,400–\$4,000 in Lubbock.

Colombian heroin sells for \$10 per cap, \$2,000 per ounce, and \$65,000–\$80,000 per kilogram in Dallas, \$45,000 in McAllen, and \$60,000 in Houston. Asian heroin costs \$200–\$350 per gram, \$2,000–\$4,000 per ounce, and \$70,000 per kilogram in Dallas.

Over time, the purity of Mexican heroin in Texas has increased and the price has decreased. Exhibit 15 shows the purity and price of heroin purchased by DEA in four Texas cities under the DMP. Heroin is much purer at the border in El Paso and decreases in purity as it moves north, since it is “cut” with other products as it passes through the chain of dealers. Although not shown in exhibit 15, there were two buys of South American heroin in Houston, with a purity of 84.1 percent and a price per milligram pure of \$0.45.

In the Dallas area, black tar is readily available, according to the DEA Field Division, and the purity rose from 26.4 percent in FY 2005 to 38.5 percent in the second quarter of FY 2006. A new drug mixture,

“Cheese,” has been found folded inside torn pieces of paper in the Dallas school district. Laboratory analysis shows “Cheese” contains approximately 94.5–95.0 percent acetaminophen, 4.5–5.0 percent diphenhydramine HCL, and 0.5–1.0 percent heroin. Acetaminophen and diphenhydramine HCL are the two active ingredients in Tylenol PM. It sells for \$5 for 0.25 gram and \$10 for 0.5 gram. As of June, reports of “Cheese” appear to have decreased.

In El Paso in 2006, black tar heroin was reported by the DEA as being the predominant type available. Limited amounts of brown heroin have been seized at the border, and there have been no reports of South American, Southeast Asian, or Southwest Asian heroin.

The DEA Houston Field Division reported the supply of brown and black tar heroin was stable. Colombian heroin is transported through Houston to the Northeastern United States. There have been seizures of white heroin during the second quarter of 2006, but the origin of the heroin has not been specified.

In Austin, shooting galleries in the Montopolis area are reported to have disappeared, and the “old timers” have either died, are in prison, or have moved out of the area to avoid harassment from the police. Heroin is plentiful in the Montopolis area, and three to four balloons of good quality heroin sell for \$25 or less.

### Other Opiates

This group excludes heroin but includes opiates such as methadone, codeine, hydrocodone (Vicodin, Tussionex), oxycodone (OxyContin, Percodan, Percocet-5, Tylox), d-propoxyphene (Darvon), hydromorphone (Dilaudid), morphine, meperidine (Demerol), and opium.

The 2004 Texas secondary school survey found that 8.3 percent reported ever having drunk codeine cough syrup to get high, and 3.3 percent drank it in the past month. Some 9 percent of Black and White students reported lifetime use, as did 9 percent of Native American students and 5 percent of Hispanic students. There was no difference by gender, but lifetime use increased with grade level from 3 percent of 7th graders to 11 percent of 12th graders.

The 2003–2004 NSDUH results reported that 4.6 percent of Texans aged 12 and older had used pain relievers, and 0.3 percent had ever used OxyContin for nonmedical purposes in the past year. In the Dallas-Fort Worth metropolitan area, 5.0 percent had

used pain relievers and 0.6 percent had used OxyContin nonmedically. In the Houston metropolitan area, 4.1 percent had used pain relievers, and 0.2 percent had used OxyContin nonmedically in the past year.

Hydrocodone is a larger problem in Texas than is oxycodone, but use of oxycodone is growing, as exhibit 16 shows. A study of oxycodone cases reported through the Texas Poison Center Network found that the proportion of calls that involved abuse of the drug more than doubled from 1998 to 2003. Oxycodone abuse cases involved males, adolescents, exposures at other residences and public areas, referral by the poison center to a health care facility, and some sort of clinical effect; one-half involved no other substance (Forrester 2004).

Poison control cases involving methadone are increasing. Methadone overdoses could be occurring among new patients in narcotic treatment programs, or they could be due to liquid methadone, which has been diverted from treatment, or pain pills diverted from pain patients, or overdoses by pain patients who took too many of the pills or took other drugs in combination with the methadone pills. Methadone is used in liquid and 40-milligram diskette forms in narcotic treatment programs, and the 40-milligram diskettes are also used in pain management. In addition, 5- and 10-milligram tablets are used for pain management. DEA's Automation of Reports and Consolidated Orders System (ARCOS) reported that between 2000 and 2005 in Texas, the number of 5–10 gram methadone tablets distributed increased from 270 grams per 100,000 population to 941 per 100,000. Eighty-eight percent of these tablets were distributed through pharmacies, and 12 percent were distributed through hospitals. The amount of 40-milligram diskettes increased from 276 grams per 100,000 in 2000 to 622 per 100,000 in 2005, and 65 percent of the diskettes were distributed through narcotic treatment programs. Thirty-five percent were distributed through pharmacies to pain patients. The amount of methadone liquid distributed went from 573 grams per 100,000 population in 2000 to 782 grams per 100,000 in 2004 and then dropped to 466 grams per 100,000 in 2005. Some 97 percent of the liquid methadone was distributed to narcotic treatment programs.

Between 1998 and 2004, the number of calls to the poison control centers to identify substances or to seek advice or report abuse or misuse cases that involved methadone pills went from 38 to 433, while the number involving high liquid doses as used in narcotic treatment programs remained level at about

1 to 3 per year. Calls for unknown formulations went from 51 to 97, and forms used in pain or in some narcotic treatment programs went from 4 to 9.

Of the unweighted hydrocodone, oxycodone, and methadone ED reports in 2005 in Houston, the patients reporting hydrocodone were the least likely to be male and least likely to be White, those reporting oxycodone were the youngest, and the methadone patients were the oldest and most likely to be White. The oxycodone cases were the youngest of the patients reporting use of any of these drugs. There were 679 unweighted hydrocodone and hydrocodone/combination reports in Houston. Of these patients, 46 percent were male, 63 percent were White, 13 percent were Black, and 11 percent were Hispanic. Seventeen percent were younger than 25, 28 percent were 25–34, and 55 percent were 35 or older. In comparison, there were 49 unweighted oxycodone and oxycodone/combination reports in Houston. Of the oxycodone patients, 49 percent were male, 67 percent were White, 4 percent were Black, and 18 percent were Hispanic. Some 24 percent were younger than 25, 18 percent were 25–34, and 57 percent were 35 or older. There were also 144 unweighted reports of methadone in Houston. Of the methadone patients, 55 percent were male, 72 percent were White, 7 percent were Black, and 10 percent were Hispanic. Twelve percent were younger than 25, 26 percent were 25–34, and 63 percent were 35 or older.

Nearly 5 percent of all clients who entered publicly funded treatment during 2005 used opiates other than heroin. Of these, 70 used illegal methadone and 2,712 used other opiate drugs (exhibit 16). Those who reported a primary problem with illegal methadone or other opiates were different from those who reported a problem with heroin. They were much more likely to be female, to be White, to have recently visited an ED, and to report more health and psychological or emotional problems in the month prior to entering treatment.

Of the 201 deaths with a mention of hydrocodone statewide in 2004 (exhibit 16), 56 percent were male, 86 percent were White, 7 percent were Black, 6 percent were Hispanic, and the average age was 40. Of the 66 deaths with a mention of oxycodone, 67 percent were male, 88 percent were White, 6 percent were Black, 6 percent were Hispanic, and the average age was 36—younger than the hydrocodone decedents. Of the 164 deaths with a mention of methadone, 60 percent were male, 87 percent were White, 4 percent were Black, 9 percent were Hispanic, and the average age was 38. There were 32 deaths with a mention of fentanyl in 2004. Of these,

53 percent were male, 88 percent were White, 3 percent were Black, 9 percent were Hispanic, and the average age was 37.

Narcotic treatment programs are required to report the deaths of their clients. Between 1994 and 2002, 776 deaths were reported. Twenty percent died of liver disease, 18 percent died of cardiovascular disease, and 14 percent died of drug overdose. Compared with the standardized Texas population, narcotic treatment patients were 4.6 times more likely to die of a drug overdose, 3.4 times more likely to die of liver disease, 1.7 times more likely to die of a respiratory disease, 1.5 times more likely to die of a homicide, and 1.4 times more likely to die of AIDS (Maxwell et al. 2005).

In the Dallas DEA Field Division, there has been an increase in seizures of codeine cough syrup, and in Tyler, adolescents are reported to be using it and then needing to move on to other opiates as their dependence increases. Dilaudid sells for \$20–\$80 per tablet, and hydrocodone (Vicodin) sells for \$5–\$6 per tablet. OxyContin sells for \$1 per milligram in Fort Worth and \$8–\$20 per 20 milligrams in Tyler. Methadone sells for \$10 per 10-milligram tablet. Codeine cough syrup is mixed with Sprite or 7-Up and drunk in a soda bottle to avoid police attention. Promethazine syrup with codeine (“lean”) sells for \$200–\$225 per pint in Dallas and Fort Worth. In the Houston Field Division, hydrocodone, promethazine with codeine, and other codeine cough syrups are the most commonly abused pharmaceutical drugs.

In Houston, promethazine or phenergan cough syrup with codeine sells for \$250 per pint, while an ounce sells for \$40 in Waco and \$20 in San Antonio. Hydrocodone sells for \$2–\$8 per pill and OxyContin costs \$1 per milligram; one OxyContin pill costs \$25 in McAllen. Dilaudid sells for \$10–\$15 per dose in McAllen. In the El Paso Field Division, morphine, Demerol, darvocet, codeine, Vicodin cough syrup, and fentanyl are the major diverted pharmaceutical drugs.

DPS labs report increases in the number of exhibits of hydrocodone and methadone each year from 1998 through 2005, while the number of fentanyl exhibits has varied over the years (exhibit 16).

A liquid form of methadone is being sold on the streets for \$0.50 to \$1.00 per milliliter, and 100 milliliters of methadone sell for \$30. It is unknown whether the methadone is being diluted with water. OxyContin is very available in Bastrop County, which adjoins Travis County (Austin). Twenty milligrams of OxyContin sell for \$5–\$10 per pill, 40

milligrams sell for \$10–\$20, and 80 milligrams cost \$10–\$40. In the Houston area, use of OxyContin and hydrocodone is increasing, with more demand for detoxification and methadone treatment as a result. In the Dallas area, there is an increase in the use of Xanax and Valium among methadone clients.

## Marijuana

Among Texas students in 2004 in grades 4–6, 2.5 percent had ever used marijuana, with 1.7 percent reporting use in the past school year. Among Texas secondary students (grades 7–12), 29.8 percent had ever tried marijuana, and 12.6 percent had used in the past month, levels lower than in 2000 (exhibit 17). In 2005, the YRBS reported that 42 percent of Texas high school students in grades 9–12 had ever smoked marijuana, and 22 percent had used in the past month.

The 2003–2004 National Survey on Drug Use and Health estimated that 8.5 percent of Texans age 12 and older had used marijuana in the past year, with 4.7 percent using in the past month. Past-month use was 4.5 percent in the Dallas/Fort Worth metropolitan area and 4.4 percent in the Houston area. The regional estimates from the 1999–2001 surveys showed past-month use was highest in the Central Texas region (5.6 percent) and lowest in the South Texas-Lower Rio Grande region (2.6 percent).

The Texas Poison Control Centers reported there were 135 calls confirming exposure to marijuana in 1998, compared with 502 in 2004 and 492 in 2005 (exhibit 18).

Marijuana represented 29 percent of all unweighted DAWN ED illicit drug reports in Houston. Most of these patients (65 percent) were male; 32 percent were White, 42 percent were Black, and 19 percent were Hispanic. Some 44 percent were younger than 25, 25 percent were 25–34, and 29 percent were 35 or older.

Marijuana was the primary problem for 21 percent of admissions to treatment programs in 2005 (exhibit 35). The average age was 21. Some 43 percent were Hispanic, 32 percent were White, and 23 percent were Black. Seventy-six percent had legal problems or had been referred from the criminal justice system, and these clients were less frequent users of marijuana than those who came to treatment for other reasons. The criminal justice-referred clients reported using marijuana on 5.9 days in the month prior to admission, compared with 9.8 days for the non-criminal justice referrals. The same differences were reported for number of days in the past month

that a second problem drug was used (2.6 vs. 4.9 days) and the number of days a third problem drug was used (2.3 vs. 4.2 days). Criminal justice referrals were more likely to report no second problem drug (43 vs. 39 percent for non-criminal justice referrals); 28 percent of both the criminal justice and non-criminal justice referrals reported a second problem with alcohol; 1.2 percent of criminal justice and 4.8 percent of non-criminal justice referrals had a second problem with crack cocaine; and 12 percent of criminal justice and 12 percent of non-criminal justice referrals had a second problem with powder cocaine.

The ASI scores were lower for justice referrals: 31 percent of the criminal justice referrals reported employment problems versus 47 percent of non-criminal justice referred clients; for sickness or health problems, 13 versus 19 percent; for family problems, 26 versus 49 percent; for social problems with peers, 20 versus 33 percent; for emotional problems, 19 versus 36 percent; and for substance abuse problems, 38 versus 58 percent. These differences indicate that marijuana users who are referred to treatment by the criminal justice system may be more appropriate for short-term intervention, with the more impaired voluntary marijuana admissions in need of more intensive treatment.

Cannabis was identified in 35 percent of all the exhibits analyzed by DPS laboratories in 2000 but in only 24 percent in 2005 (exhibit 18).

Exhibit 19 shows the decline in the price of a pound of marijuana since 1992 and the increase between 2003 and 2006.

The Houston DEA Field Division reports hydroponic marijuana is available, especially in Asian communities. In the Dallas-Fort Worth area, Mexican marijuana is readily available, but there are continuing seizures of domestically grown marijuana (both indoor and outdoor grown).

High quality sinsemilla sells for \$900–\$1,200 per pound in the Dallas/Fort Worth area, \$800 per pound in Lubbock, and \$600 per pound in Houston. Canadian BC Bud sells for \$3,300 in Houston and \$2,900–\$3,100 in Dallas. Hydroponic sells for \$3,500 per pound in Houston, \$4,600 in McAllen, \$3,000–\$4,000 in Austin, and \$3,800 in Dallas. The average price for a pound of commercial grade marijuana is \$140–\$160 in Laredo, \$215 in McAllen, \$350–\$450 in San Antonio and Austin, \$350–\$425 in Houston, \$200 in El Paso, \$375–\$600 in Midland, \$350–\$800 in the Dallas-Fort Worth area, \$500–\$600 in Lubbock, and \$300–\$500 in Tyler.

## Stimulants

Amphetamine-type substances come in different forms and with different names. “Speed” (“meth,” “crank,”) is a powdered methamphetamine of relatively low purity and is sold in grams or ounces. It can be snorted or injected. “Pills” can be pharmaceutical grade stimulants such as dextro-amphetamine, Dexedrine, Adderall, or Ritalin (methylphenidate), or they can be methamphetamine powder that has been pressed into tablets and sold as amphetamines or ecstasy. Pills can be taken orally, crushed for inhalation, or dissolved in water for injection. There is also a damp, sticky powder of higher purity than “Speed” that is known as “Base” in Australia and “Peanut Butter” in parts of the United States. “Ice,” also known as “Crystal” or “Tina,” is methamphetamine that has been “washed” in a solvent to remove impurities; it has longer-lasting physical effects and purity levels above 80 percent. Ice can be smoked in a glass pipe, “chased” on aluminum foil, mixed with marijuana and smoked through a bong, or injected.

The Texas secondary school survey reported that lifetime use of uppers was 6.0 percent, and past-month use was 2.5 percent in 2004. The 2005 YRBS reported lifetime use of methamphetamine by Texas high school students was 8 percent.

The 2002–2004 NSDUH reported that past-year use of stimulants (which included amphetamines, methamphetamine, methylphenidate, and prescription diet pills) in Texas was 1.4 percent, and past-year use of methamphetamine was 0.7 percent. Past-year use of stimulants in the Dallas/Fort Worth metropolitan area was 1.1 percent, and use of methamphetamine was 0.7 percent, while in the Houston area, 1.3 percent had used stimulants and 0.5 percent had used methamphetamines.

There were 144 calls to Texas poison control centers involving exposure to methamphetamines in 1998 and 490 in 2005 (exhibit 20). Of the 2005 calls, there were 123 mentions of ice or crystal. There were also 177 calls involving abuse or misuse of amphetamine pills, phentermine, or Adderall, and another 114 calls involving abuse or misuse of Ritalin. Forrester’s study of all calls involving Ritalin to poison control centers in Texas between 1998 and 2004 found that 8.5 percent involved misuse and abuse. Of these Ritalin abuse/misuse calls, 62 percent involved males, 20 percent were younger than 13, 55 percent were age 13–19, and 25 percent were older than 19. Ninety-three percent had swallowed the drug, 7 percent had inhaled it, and 67 percent of these abuse/misuse calls also had used other substances.

Compared with non-abuse calls, abusers were significantly more likely to be older, to have misused the drug while at school, and to suffer minor, moderate, or major effects from using the drug.

In the unweighted Houston DAWN ED illicit drug reports, methamphetamine represented 3 percent of all reports and amphetamine represented 5 percent. Patients who reported use of methamphetamine were more likely to be male (67 percent), White (73 percent), and between ages 25 and 34. Five percent were Black; 9 percent were Hispanic; 43 percent were younger than 25; 37 percent were 25–34; and 20 percent were 35 and older. Among amphetamine cases, 61 percent were male, 52 percent were White, 27 percent were Black, and 15 percent were Hispanic. Amphetamine users were less likely to be in the 25–34 age group: 46 percent were younger than 25, 28 percent were 25–34, and 23 percent were 35 or older.

Methamphetamine/amphetamine admissions to treatment programs increased from 5 percent of all admissions in 2000 to 14 percent in 2005 (exhibit 20), and the average age of clients admitted for a primary problem with stimulants increased. In 1985, the average age was 26; in 2005, it was 29. The proportion of White clients rose from 80 percent in 1985 to 86 percent in 2005, while the proportion of Hispanics dropped from 11 to 10 percent, and the proportion of Blacks dropped from 9 to 1 percent. Unlike the other drug categories, more than one-half of these clients entering treatment were women (exhibit 35).

More clients now smoke ice than inject speed. The proportion smoking ice also increased from less than 1 percent in 1988 to 46 percent in 2005. The percentage of clients injecting the drug dropped from 84 percent in 1988 to 39 percent in 2005 (exhibit 21).

Users of amphetamines or methamphetamine tend to differ depending on their route of administration, as exhibit 22 shows. Methamphetamine injectors were more likely to have been in treatment before (59 percent readmissions) than amphetamine pill takers (40 percent), ice smokers (43 percent), or inhalers (41 percent).

Statewide, there were 17 deaths in which amphetamines or methamphetamines were mentioned in 1997, compared with 99 in 2004 (exhibit 20). Of the decedents in 2004, 75 percent were male, 89 percent were White, 4 percent were Black, 7 percent were Hispanic, and the average age was 38.

To make methamphetamine, local labs are using the “Nazi method,” which includes ephedrine or pseudoephedrine, lithium, and anhydrous ammonia, and the “cold method,” which uses ephedrine, red phosphorus, and iodine crystals. The “Nazi method” is the most common method used in North Texas. Before these methods became common, most illicit labs used the “P2P method,” which is based on 1-phenyl-2-propanone. The most commonly diverted chemicals are 60-milligram pseudoephedrine tablets, such as Xtreme Relief, Mini-Thins, Zolzina, Two-Way, and Ephedrine Release.

Methamphetamine and amphetamine together represented 16 percent of all items examined by DPS laboratories in 2000, but the percentage increased to 25 percent in 2005 (exhibit 20). Twenty-four percent of the exhibits were methamphetamine, and less than 1 percent were amphetamine.

Methamphetamine is more of a problem in the northern half of the State, as exhibit 23 shows. Labs in the northern part of the State were also more likely to report analyzing substances that turned out to be ammonia or pseudoephedrine, chemicals used in the manufacture of methamphetamine. However, the proportions of methamphetamine exhibits elsewhere in the State are increasing each year, as shown by the changes between 2001 and 2005. In the Harris, Smith, and Midland DPS lab districts, the proportion of exhibits that were methamphetamine doubled.

The Houston Field Division reports that the availability of both Mexican and locally produced methamphetamine is increasing. Most of the methamphetamine comes from Mexico, and ice is being shipped via parcel service from California. It is also being smuggled directly into Houston from Mexico. It is becoming more popular in Beaumont and is the drug of choice in Galveston. Transporters are being paid \$500 per kilogram to transport “cocaine,” which is actually ice.

The Dallas DEA Field Division reports that the availability of methamphetamine, especially ice, is steady or rising at the retail level. Ice is the most abundant form of methamphetamine seen in the division, and pound quantities are increasing in Fort Worth. Mexican methamphetamine and ice come from Michoacán and Nuevo Leon. Methamphetamine continues to be produced in local laboratories, and cooks are reported to be using pseudoephedrine from a product called “Breathing Blocks,” which may be an alias for “Tri-Hist Granules.” These granules come in 20-ounce bottles and contain 600 milligrams of pseudoephedrine per ounce. It is a



soluble, edible corn-meal base utilized by veterinarians. Other locally produced methamphetamine is more often being cut with methylsulfonylmethane. One dealer is selling methylsulfonylmethane instead of methamphetamine. In addition, methamphetamine tablets manufactured in Colombia have been seized in Texas.

The El Paso Field Division reports methamphetamine traffickers operate out of California, Arizona, and Texas, with sources of supply being Mexico and California. Local street gangs distribute methamphetamine, and local production continues.

Statewide, the purity of methamphetamine has increased from 46 percent in 2004 to 48 percent in 2005, and the purity for 1–10 grams has risen from 46 percent pure in the Dallas area in 2000 to 65 percent pure in 2004, according to NFLIS data. A pound of domestic methamphetamine sells for \$10,500 in Dallas, and a pound of Mexican methamphetamine sells for \$7,500–\$9,000. A pound sells for \$6,000–\$8,000 in San Antonio, \$4,500–\$10,000 in Fort Worth, \$6,000–\$7,000 in Tyler, and \$7,000–\$8,000 in Lubbock. An ounce of domestic methamphetamine sells for \$600–\$800 in Dallas, while an ounce of Mexican sells for \$400. An ounce of methamphetamine sells for \$600 in Fort Worth, \$250–\$800 in Tyler, \$500–\$700 in Lubbock, \$500–\$850 in Houston, and \$700–\$1,000 in San Antonio.

The price of ice continues to drop, from \$13,000–\$17,000 per kilogram in 2004 to \$8,000–\$15,000 in 2005 in Houston. A kilogram costs \$22,000 in El Paso. An ounce of ice sells for \$1,400 in Dallas, \$800–\$1,000 in Fort Worth, \$1,200 in Lubbock, \$950–\$1,250 in Tyler, \$700–\$1,200 in Houston, \$500–\$1,000 in Austin, \$900 in McAllen, and \$1,000–\$1,500 in San Antonio.

Ice is the most popular drug with both adults and adolescents in the Amarillo area. The methamphetamine in the Austin area is reported to be coming in from Bastrop, Caldwell, and Hays Counties, which are more rural counties adjoining Travis County. It is being sold for \$90 per gram, and methamphetamine users are reported to be centered in Williamson County and North Austin in the Rundburg area. Buyers are reported to be Anglos and wealthier housewives. Methamphetamine is not only seen in the gay community in Houston, but also in the rural areas surrounding the city, with increasing criminal activities being reported as a result. Crystal methamphetamine is also being reported in the Black community in Houston, and former cocaine injectors report that methamphetamine is easy to obtain, less expensive, and the “high” lasts longer than cocaine.

In other areas on the Gulf Coast, street outreach workers are also reporting increases in methamphetamine use. In the Fort Worth area, methamphetamine use is increasing in the population age 18–25, and use is reported up in the rural areas of McKinney in Collin County and in the rural areas of Denton County. In the Amarillo area, smoking ice is increasing.

### Depressants

This “downer” category includes three groups of drugs: barbiturates, such as phenobarbital and secobarbital (Seconal); nonbarbiturate sedatives, such as methaqualone, over-the-counter sleeping aids, chloral hydrate, and tranquilizers; and benzodiazepines, such as diazepam (Valium), alprazolam (Xanax), flunitrazepam (Rohypnol), clonazepam (Klonopin or Rivotril), flurazepam (Dalmane), lorazepam (Ativan), and chlordiazepoxide (Librium and Librax). Rohypnol is discussed separately in the Club Drugs section of this report.

The 2004 Texas secondary school survey reported lifetime use of downers was 5.9 percent, and past-month use was 2.6 percent.

The 2002–2004 NSDUH reported 0.2 percent of Texans age 12 and older had used sedatives in the past year, with 0.2 percent reporting past-year use in the Dallas/Fort Worth metropolitan area and 0.1 percent in the Houston region.

A study of patterns of alprazolam abuse and drug identification (ID) calls received by several poison control centers between 1998 and 2004 found that of 25,954 alprazolam calls received, 42 percent were drug identification calls and 51 percent were human exposure calls, of which 18 percent were abuse calls. The number of drug ID calls and the number of abuse calls both increased during the 7-year period. Male patients accounted for 54 percent of abuse calls and females for 66 percent of nonabuse calls. Adolescent patients represented 43 percent of abuse calls but only 12 percent of nonabuse calls. Although the majority of both types of human exposures occurred at the patient’s own residence, abuse exposures were more likely than other exposures to occur at school (9 vs. 1 percent) and public areas (6 vs. 1 percent) (Forrester 2006).

About 1 percent of the clients entering treatment in 2005 had a primary problem with barbiturates, sedatives, or tranquilizers. These clients were the most likely to be female and highly impaired, based on their ASI scores (see exhibit 35).

Alprazolam, clonazepam, and diazepam are among the 15 most commonly identified substances according to DPS lab reports, although none of them represent more than 3 percent of all items examined in a year. Alprazolam (Xanax) cases outnumbered other benzodiazepine cases (exhibit 24).

Alprazolam sells for \$5 per pill in Dallas, \$3–\$5 in Fort Worth, \$5 in San Antonio, \$2–\$4 in Houston, \$20 in McAllen, and \$3–\$10 in Tyler. Depending on the dosage unit, diazepam sells for \$1–\$10 in Dallas, Fort Worth, and Tyler.

### Club Drugs and Hallucinogens

Exhibit 25 shows the demographic characteristics of clients entering DSHS-funded treatment programs statewide with a problem with a club drug. The row “Primary Drug” shows the percentage of clients citing a primary problem with the club drug shown at the top of the column. The rows under the heading “Other Primary Drug” show the percentage of clients who had a primary problem with another drug, such as marijuana, but who had a secondary or tertiary problem with one of the club drugs shown at the top of the table. Note that the treatment data uses a broader category, “Hallucinogens,” that includes lysergic acid diethylamide (LSD), dimethyl-tryptamine (DMT), STP, mescaline, psilocybin, and peyote.

Exhibit 25 shows that hallucinogen admissions are more likely to be male, gamma hydroxybutyrate (GHB) clients are the most likely to be White, phencyclidine (PCP) clients are the most likely to be Black, Rohypnol clients are the youngest, and GHB clients are the oldest. While users of PCP are the most likely to have a primary problem with PCP (49 percent), users of Rohypnol, ecstasy, and hallucinogens are more likely to have primary problems with marijuana. Users of GHB tend to have a primary problem with methamphetamine (58 percent).

#### *Dextromethorphan*

The most popular dextromethorphan (DXM) products are Robitussin-DM, Tussin, and Coricidin Cough and Cold Tablets HBP, which can be purchased over the counter and can produce hallucinogenic effects if taken in large quantities. Coricidin HBP pills are known as “Triple C’s” or “Skittles.”

The 2004 Texas school survey reported that 4.3 percent of secondary students indicated they had used DXM. Use increased from 2.5 percent in 7th

grade to 5.8 percent in 12th grade. There was no difference by gender, but Whites reported higher lifetime use (6.1 percent) than Native Americans (5.8 percent), Hispanics (3.6 percent), or Blacks (2.4 percent).

Poison control centers reported the number of abuse and misuse cases involving DXM rose from 99 in 1998 to 189 in 2005. The average age was 22.7. The number of cases involving abuse or misuse of Coricidin HBP was 7 in 1998 and 234 in 2005. The average age in 2005 was 15.9, which shows that youth can easily access and misuse this substance.

There was one death in 2004 in which dextromethorphan was one of the substances mentioned on the death certificate.

DPS labs examined 2 substances in 1998 that were DXM, compared with 13 in 1999, 36 in 2000, 18 in 2001, 42 in 2002, 10 in 2003, 15 in 2004, and 10 in 2005.

#### *Ecstasy (Methylenedioxymethamphetamine or MDMA)*

The 2004 Texas secondary school survey reported that lifetime ecstasy use dropped from a high of 8.6 percent in 2002 to 5.5 percent in 2004, while past-year use dropped from 3.1 to 1.8 percent. The 2005 YRBS reported that 8 percent of Texas high school students had ever used ecstasy.

The 2002–2004 NSDUH survey reported 1.1 percent of Texans had used ecstasy in the past year, with 1.3 percent using in the Dallas/Fort Worth and Houston areas.

Texas Poison Control Centers reported 23 calls involving misuse or abuse of ecstasy in 1998, compared with 46 in 1999, 119 in 2000, 155 in 2001, 172 in 2002, 284 in 2003, 302 in 2004, and 343 in 2005 (exhibit 26). In 2005, the average age was 21.

There were 138 unweighted reports in Houston in which ecstasy was one of the substances mentioned at admission to EDs reporting to DAWN in 2005. Some 57 percent of the ecstasy patients were male, 21 percent were White, 43 percent were Black, and 24 percent were Hispanic. Sixty-one percent were younger than 25, 31 percent were between 25 and 34, and 7 percent were 35 or older.

There were 63 admissions to treatment for a primary, secondary, or tertiary problem with ecstasy in 1998, compared with 114 in 1999, 199 in 2000, 349 in

2001, 521 in 2002, 502 in 2003, 561 in 2004, and 640 in 2005 (exhibit 26). Exhibit 27 shows that ecstasy has spread outside the White club scene and into the Hispanic and Black communities, as evidenced by the declining proportion of White treatment clients.

In 1999, there were two death certificates that mentioned ecstasy or MDMA in Texas. There was one death in 2000, compared with five in 2001, five in 2002, two in 2003, and nine in 2004 (exhibit 26). Of the 2004 cases, 66 percent were male, all were White, and the average age was 28.

Exhibit 26 shows the substances identified by DPS labs. The labs identified MDMA in 5 exhibits in 1998, 107 exhibits in 1999, 387 in 2000, 817 in 2001, 632 in 2002, 490 in 2003, 737 in 2004, and 821 in 2005. Methylenedioxyamphetamine (MDA) was identified in no exhibits in 1998, 31 in 1999, 27 in 2000, 60 in 2001, 106 in 2002, 94 in 2003, 67 in 2004, and 85 in 2005.

According to the Houston DEA Field Division, ecstasy is readily available at clubs, raves, and gyms, and use is stable among Galveston and Beaumont college students. While most tablets contain MDMA, some have high concentrations of caffeine or methamphetamine, with traces of ketamine in some tablets. Ecstasy is available in downtown Austin nightclubs, and use is stable. The primary source is Canada, but ecstasy also comes into South Texas from Mexico. Asian gangs in Houston control distribution.

The Dallas DEA Field Division reports that ecstasy comes from Houston, Los Angeles, Las Vegas, Michigan, or directly from Europe. Asian groups continue to be heavily involved in the sale and distribution of ecstasy.

Single dosage units of ecstasy sell for \$12–\$20 in Dallas, \$5–\$12.50 in Fort Worth, \$12–\$25 in Tyler, \$5–\$10 in Houston, \$25 in McAllen, \$20 in Laredo and \$6.50–\$7 in Galveston.

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

The number of cases of misuse or abuse of GHB or its precursors reported to Texas Poison Control Centers was 110 in 1998, 150 in 1999, 120 in 2000, 119 in 2001, 100 in 2002, 66 in 2003, 84 in 2004, and 62 in 2005. The average age of the abusers in 2005 was 27.6, and of the callers whose gender was known, 57 percent were male.

The unweighted DAWN ED data show there were six GHB reports in Houston in 2005.

Adults and adolescents with a primary, secondary, or tertiary problem with GHB, GBL, or 1,4 BD are seen in treatment. In 1998, 2 were admitted, compared with 17 in 1999, 12 in 2000, 19 in 2001, 35 in 2002, 31 in 2003, 45 in 2004, and 48 in 2005. In 2005, clients who used GHB tended to be the oldest of all the club drug users (average age 29) and were the most likely to be White (98 percent). GHB users were more likely to have used the so-called “hard-core” drugs; 44 percent had a history of injection drug use and 58 percent had a primary problem with amphetamines or methamphetamine. Because of the sleep-inducing properties of GHB, users will also use methamphetamine so they can stay awake while they are “high” on GHB, or they use GHB to “come down” from their use of methamphetamine (exhibit 25).

There were three deaths that involved GHB in 1999, five in 2000, three in 2001, two in 2002, two in 2003, and three in 2004. In 2004, 100 percent were male, 66 percent were White, and the average age was 33.

There were 18 items identified by DPS labs as being GHB in 1998, 112 in 1999, 45 in 2000, 34 in 2001, 110 in 2002, 150 in 2003, 99 in 2004, and 92 in 2005. There were no items identified as GBL in 1998, compared with four in 1999, seven in 2000, seven in 2001, nine in 2002, five in 2003, two in 2004, and one in 2005. There were no items identified as 1,4 BD in 1988, 4 in 1989, 4 in 2000, 19 in 2001, 5 in 2002, and none in 2003, 2004, and 2005. In 2005, 98 percent of the GHB and GBL items were identified in the DPS lab in the Dallas area, which shows use of GHB is centered in this area of the State.

In Dallas, the price of GHB has increased from \$100–\$200 per gallon in 2005 to \$500–\$1,600 per gallon in 2006. A dose of GHB costs \$20 in Dallas and \$5–\$10 in Lubbock and San Antonio. The DEA Field Division in Dallas reports that GHB is being manufactured in home laboratories, where GBL ordered over the Internet is mixed with other chemicals and water to produce GHB.

#### *Ketamine*

Eight cases of misuse or abuse of ketamine were reported to Texas Poison Control Centers in 1998, compared with 7 in 1999, 15 in 2000, 14 in 2001, 10 in 2002, 17 in 2003, 7 in 2004, and 5 in 2005.

There were no reports of ketamine in the unweighted Houston DAWN ED data, and one client was admitted to a DSHS-funded treatment program in 2005 for a problem with ketamine.

There were two deaths in 1999 that involved use of ketamine, followed by none in 2000, one in 2001, one in 2002, none in 2003, and two in 2004.

In 1998, two substances were identified as ketamine by DPS labs. There were 26 in 1999, 49 in 2000, 120 in 2001, 116 in 2002, 85 in 2003, 79 in 2004, and 19 in 2005.

Ketamine costs \$2,200–\$2,500 per liter in Fort Worth and \$65 per vial in Tyler, with a dose selling for \$20 per pill or gram.

#### *LSD and Other Hallucinogens*

The Texas secondary school survey shows that use of hallucinogens (defined as LSD, PCP, mushrooms, etc.) continues to decrease. Lifetime use peaked at 7.4 percent in 1996 and dropped to 4.8 percent by 2004. Past-month use dropped from a peak of 2.5 percent in 1998 to 1.6 percent in 2004.

The 2002–2004 NSDUH reported past-year use by Texans age 12 and older at 0.3 percent, with use at 0.3 percent in both the Dallas/Fort Worth and Houston areas.

Texas Poison Control Centers reported 82 mentions of abuse or misuse of LSD in 1998, 113 in 1999, 97 in 2000, 70 in 2001, 129 in 2002, 20 in 2003, 22 in 2004, and 38 in 2005. There were also 98 cases of intentional misuse or abuse of hallucinogenic mushrooms reported in 1998, 73 in 1999, 110 in 2000, 94 in 2001, 151 in 2002, 130 in 2003, 172 in 2004, and 82 in 2005. The average age in 2005 was 20.4 for the LSD cases and 21.6 for the mushroom cases.

There were nine unweighted reports of LSD and five unweighted reports of miscellaneous hallucinogens in the Houston DAWN EDs in 2005.

The number of adults and youths with a primary, secondary, or tertiary problem with hallucinogens entering treatment is decreasing. There were 636 in 2000, 486 in 2001, 436 in 2002, 319 in 2003, 266 in 2004, and 223 in 2005. Of the admissions in 2005, the average age was 23; 72 percent were male; 59 percent were White; 23 percent were Hispanic; and 18 percent were Black. Sixty-four percent were referred from the criminal justice or legal system, and 27 percent had a history of injection drug use (exhibit 25).

Statewide, there were two deaths in 1999 with a mention of LSD. No deaths with a mention of LSD have been reported since.

DPS labs identified 69 substances as LSD in 1998, compared with 406 in 1999, 234 in 2000, 122 in 2001, 11 in 2002, 10 in 2003, 25 in 2004, and 14 in 2005.

A dosage unit of LSD sells for \$1–\$10 in Dallas, \$5–\$10 in Tyler, \$6–\$10 in Fort Worth, \$5–\$7 in Austin, and \$8–\$12 in San Antonio.

#### *PCP*

The 2002–2004 NSDUH reported past-year use of PCP in Texas at 0.1 percent. Past-year use in the Dallas/Fort Worth metropolitan area was 0.1 percent, and it was 0.2 percent in Houston.

Texas Poison Control Centers reported cases of “Fry,” “Amp,” “Water,” “Wack,” or “PCP.” Often, marijuana joints are dipped in formaldehyde that contains PCP, or PCP is sprinkled on the joint or cigarette. The number of cases involving PCP increased from 102 in 1998 to 189 in 2005 (exhibit 28). Of these, 18 cases involved misuse or abuse of formaldehyde or formalin in 2003, compared with 55 in 2004 and 56 in 2005.

There were 212 unweighted reports of PCP in Houston DAWN EDs in 2005. Of these patients, 69 percent were male, 79 percent were Black, 13 percent were White, and 8 percent were Hispanic. Forty-two percent were younger than 25, 42 percent were between 25 and 34, and 13 percent were 35 or older.

Adolescent and adult admissions to treatment with a primary, secondary, or tertiary problem with PCP have varied over time (exhibit 28), rising from 164 in 1998 to 417 in 2003 and then dropping to 223 in 2005. Of these clients in 2005, 82 percent were Black; 42 percent were male; and 56 percent were involved in the criminal justice system. While 49 percent reported a primary problem with PCP, another 16 percent reported a primary problem with marijuana, which demonstrates the link between these two drugs as “Fry,” “Amp,” or “Water” (exhibit 25).

There were 3 death certificates in 1999 and 14 in 2004 that mentioned PCP (exhibit 28). In 2004, 86 percent were male, 86 percent were Black, and the average age was 32.

DPS labs identified 10 substances as PCP in 1998 and 121 in 2005 (exhibit 28).

According to DEA, PCP costs \$30 per dosage unit in McAllen. In Dallas, it costs \$375–\$450 per ounce, \$25 per cigarette, and \$10 for a piece of a "sherm" stick. It costs \$26,000–\$28,000 per gallon in Fort Worth and \$700–\$1,200 per gallon in San Antonio. An ounce in San Antonio costs \$45–\$80, and a dosage unit costs \$30 in McAllen.

### *Rohypnol*

Rohypnol (flunitrazepam) is a benzodiazepine 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. It continues to be a problem along the Texas-Mexico border. As shown in exhibit 29, the 2004 secondary school survey found that students from the border area were about three times more likely to report Rohypnol use than those living elsewhere in the State (9.1 vs. 2.5 percent lifetime, and 3.5 vs. 2.5 percent current use). Use in both the border and nonborder areas has declined since its peak in 1998.

The number of confirmed exposures to Rohypnol reported to the Texas Poison Control Centers peaked at 102 in 1998; 22 cases were reported in 2005. The average age in 2004 was 17; 43 percent were male; and 62 percent lived in counties on the border. A study of all the exposure calls between 1998 and 2003 found that a significantly higher proportion of flunitrazepam abuse and malicious use calls occurred in border counties. The majority of the abuse calls involved males, while the majority of malicious use calls involved females. Most abuse calls involved adolescents, while the majority of the malicious calls involved adults. Abuse cases occurred most frequently at the patient's own residence or at school, while malicious use occurred most often in public areas, with the patient's own residence ranking second (Forrester 2004). This analysis provides evidence of two patterns of Rohypnol use: (1) recreational use and abuse by adolescent males and (2) use of the drug with criminal intent on adult women.

The number of youths and adults admitted into treatment with a primary, secondary, or tertiary problem with Rohypnol has varied: 247 in 1998, 364 in 1999, 324 in 2000, 397 in 2001, 368 in 2002, 331 in 2003, 221 in 2004, and 198 in 2005. In 2005, clients abusing Rohypnol were among the youngest of the club drug patients (age 16), and they were Hispanic (98 percent), which reflects the availability and use of this drug along the border (exhibit 25).

Some 78 percent were involved with the criminal justice or legal system. While 12 percent of these clients said that Rohypnol was their primary problem drug, 53 percent reported a primary problem with marijuana.

DPS lab exhibits for Rohypnol numbered 43 in 1988, 56 in 1999, 32 in 2000, 35 in 2001, 26 in 2002, 17 in 2003, 17 in 2004, and 10 in 2005. This decline in the number of Rohypnol seizures parallels the declines seen in other indicators.

Although Roche is reported to no longer be making the 2-milligram Rohypnol tablet (a favorite with abusers), generic versions are still produced, and the blue dye added to the Rohypnol tablet to warn potential victims is not in the generic version. Unfortunately, the dye is not proving effective, since people intent on committing sexual assault may employ blue tropical drinks and blue punches into which Rohypnol can be slipped.

Rohypnol was selling for \$2–\$4 per pill in San Antonio.

### **Other Abused Substances**

#### *Inhalants*

The 2004 elementary school survey found that 10.5 percent of students in grades 4–6 had ever used inhalants, and 7.6 percent had used in the school year. The 2004 secondary school survey found that 17 percent of students in grades 7–12 had ever used inhalants, and 6.7 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 (exhibit 30). This decrease in inhalant use as students age may be partially related to the fact that inhalant users drop out of school early and hence are not in school in later grades to respond to school-based surveys. In addition, the Texas school surveys have consistently found that 8th graders reported use of more different kinds of inhalants than any other grade, and this may be a factor that exacerbates the damaging effects of inhalants and leads to dropping out.

The 2005 YRBS reported that 13 percent of Texas high school students had ever used inhalants. Unlike other drugs, where the 2005 YRBS reported higher prevalence for students in grades 9–12 than the 2004 Texas secondary school survey for grades 7–12, for inhalants, the prevalence of inhalant use is lower in grades 9–12 than for those in grades 7–12. This is

another indication of the drop-out factor with inhalant abuse.

The 2002–2004 NSDUH estimate was that 0.7 percent of Texas age 12 and older had used inhalants in the past year, with 0.7 percent in Dallas and 0.6 percent in Houston.

The poison control center data for 2005 show that automotive products such as carburetor cleaner, transmission fluid, and gasoline were the inhalants abused or misused the most often, with 45 calls; the average age for these callers was 21. There were 26 calls for misuse of air fresheners, dusting sprays, or body deodorants (average age of 15), 25 calls of abuse or misuse of paint or toluene (average age 27), and 8 calls of misuse of Freon (average age 21).

There were 35 unweighted ED reports of inhalants in 2005 in Houston. Some 80 percent were male; 57 percent were Hispanic; 25 percent were White; 16 percent were Black; 50 percent were younger than 25; 31 percent were 25–34; and 28 percent were 35 or older.

Inhalant abusers represented 0.2 percent of the admissions to treatment programs in 2005. The clients tended to be male (63 percent) and Hispanic (79 percent). The overrepresentation of Hispanics is related to the fact that DSHS developed and funded treatment programs targeted specifically to this group. The average age of the clients was 20. Sixty-nine percent were involved with the criminal justice system; the average education was 8.9 years; 10 percent were homeless; and 14 percent had a history of injection drug use.

In 2000, there were 12 deaths involving misuse of inhalants, compared with 15 in 2001, 8 in 2002, 13 in 2003, and 11 in 2004. The categorization of inhalant deaths is difficult and leads to underreporting. However, of those reported in 2004, the average age was 30; 73 percent were male; 45 percent were White; and 55 percent were Hispanic.

### *Steroids*

The Texas school survey reported that 2 percent of all secondary students surveyed in 2004 had ever used steroids and that less than 1 percent had used steroids during the month before the survey. Although steroids can be bought across the border, the survey found lifetime usage lower among border students (1.4 percent) than among nonborder students (2.1 percent). The 2005 YRBS found 4 percent of Texas high school students had used steroids.

There were 24 persons admitted to DSHS-funded treatment in 2005 with a primary, secondary, or tertiary problem with steroids. Sixty-three percent were male, 71 percent were White, and 25 percent were Hispanic; the average age was 32. Some 75 percent were involved with the criminal justice or legal system; 46 percent had a primary problem with steroids; 21 percent had a primary problem with marijuana; and 13 percent had a primary problem with crack.

The NFLIS data for Texas reported testosterone was the steroid most likely to be seized and submitted for forensic testing, although it only constituted 0.18 percent of all the items tested in 2005. Most of the steroid seizures were tested in DPS laboratories located on the border.

Anabolic steroids cost \$1–\$3 per tablet and \$5–\$10 per milliliter in Houston and \$5–\$10 per tablet in Fort Worth.

### *Carisoprodol (Soma)*

Poison control centers confirmed that exposure cases of intentional misuse or abuse of the muscle relaxant carisoprodol (Soma) increased from 83 in 1998 to 373 in 2005. Between 1998 and 2003, 51 percent of these poison control center cases involved males, and 83 percent involved persons older than 19. Carisoprodol is a substance that tends to be abused in combination with other substances. Only 39 percent of the cases involved that one drug; all the others involved combinations of drugs (Forrester 2004).

The unweighted Houston DAWN ED data in 2005 showed 432 carisoprodol reports. Of these patients, 43 percent were male, 66 percent were White, 12 percent were Black, and 6 percent were Hispanic. Nineteen percent were younger than 25, 30 percent were 25–34, and 50 percent were 35 or older.

In 2004, carisoprodol was mentioned on 87 death certificates, up from 51 in 2003. Only three of the deaths involved just carisoprodol. Hydrocodone and alprazolam were substances most often mentioned along with carisoprodol on the other death certificates. Of the 2004 deaths, 60 percent were male, 93 percent were White, and the average age was 41.

DPS lab exhibits of carisoprodol reported to NFLIS increased from 13 in 1998 to 90 in 1999, 153 in 2000, 202 in 2001, 232 in 2002, 277 in 2003, 253 in 2004, and 356 in 2005.

According to the Dallas DEA Field Division, Soma sells for \$4 per tablet, and Soma with codeine sells for \$2–\$5.

**INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

Forty-eight percent of the 200 clients in Texas narcotic treatment programs said they were positive for hepatitis C, and 54 percent said a doctor had told them they had liver problems (Maxwell and Spence 2006).

*HIV and AIDS Cases*

The proportion of HIV cases among men having sex with men has increased from 46 percent in 1999 to 63 percent in 2005 (exhibit 31), and the proportion of AIDS cases among men having sex with men has increased from 50 percent in 1999 to 54 percent in 2005 (exhibit 32). Of the HIV cases in 2005, 20 percent were heterosexual mode of exposure and 12 percent were injection drug users (IDUs). Of the 2005 AIDS cases, 21 percent were heterosexual and

17 percent were IDUs. HIV cases that later seroconverted to AIDS are excluded from the HIV exhibits.

Persons infected with HIV or AIDS are more likely to be persons of color. Among HIV cases in 2005, 39 percent were Black, 34 percent were White, and 26 percent were Hispanic (exhibit 33). Among AIDS cases in 2005, 39 percent were Black, 31 percent were White, and 30 percent were Hispanic (exhibit 34).

The proportion of adult needle users entering DSHS-funded treatment programs decreased from 32 percent in 1988 to 18 percent for 2005. Heroin injectors were most likely to be older, and nearly two-thirds were people of color, while injectors of stimulants and cocaine were far more likely to be White.

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**Exhibit 1. Houston DAWN ED Sample and Reporting Information: 2005**

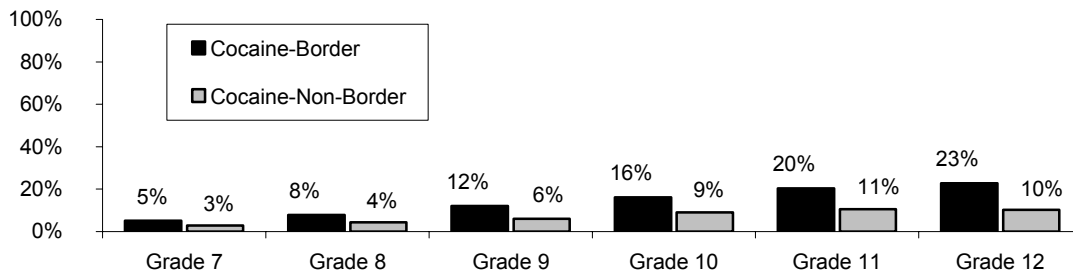
Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting per Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
40	40	42	11–14	0–1	0–1	28–30

<sup>1</sup>Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup>Some hospitals have more than one emergency department. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change.

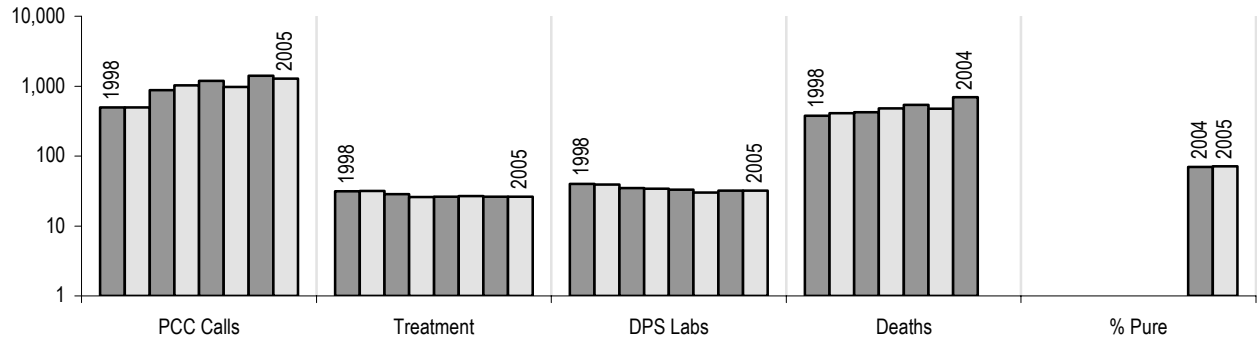
SOURCE: DAWN Live!, OAS, SAMHSA, updated 4/21, 2006

**Exhibit 2. Percentage of Border and Nonborder Texas Secondary Students Who Had Ever Used Powder or Crack Cocaine, by Grade: 2004**



SOURCE: Department of State Health Services

**Exhibit 3. Texas Poison Control, Treatment Admissions, Lab Exhibits, Deaths, and Purity for Cocaine: 1998–2005**



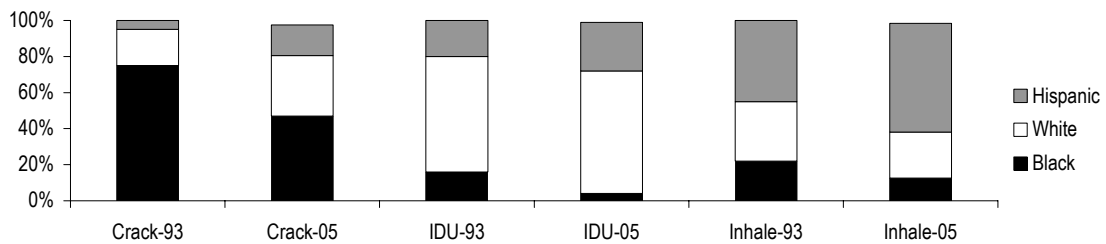
SOURCES Department of State Health Services and NFLIS, DEA

**Exhibit 4. Characteristics of Clients Admitted to TDSHS-Funded Treatment with a Primary Problem with Cocaine by Route of Administration: 2005**

Characteristic	Crack Cocaine Smoke	Powder Cocaine Inject	Powder Cocaine Inhale	Cocaine All <sup>1</sup>
Number of Admissions	9,115	890	4,343	14,838
% Cocaine Admissions	64	6	30	100
Lag-1st Use to Treatment (Years)	12	16	9	11
Average Age (Years)	37	35	29	35
% Male	51	60	48	50
% Black	47	4	13	33
% White	34	68	26	34
% Hispanic	17	27	60	31
% CJ Involved	36	44	49	41
% Employed	14	14	34	20
% Homeless	16	12	4	12

<sup>1</sup>Total includes clients with "other" routes of administration.  
SOURCE: Department of State Health Services

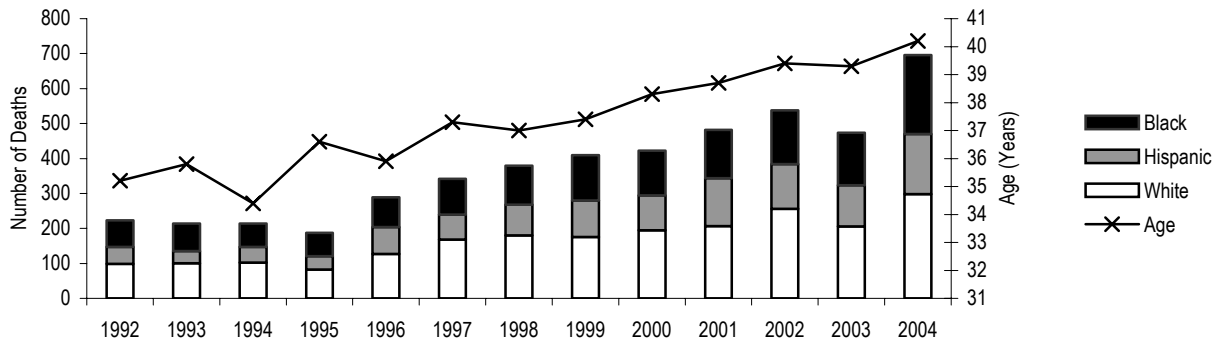
**Exhibit 5. Routes of Administration of Cocaine by Race/Ethnicity from DSHS Treatment Admissions: 1993–1995**



SOURCE: Department of State Health Services



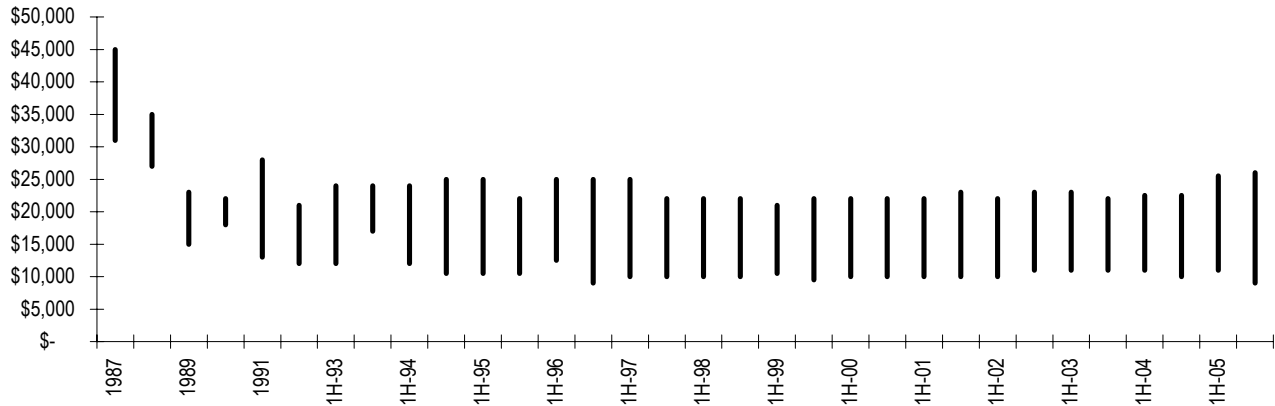
**Exhibit 6. Age and Race/Ethnicity of Persons Dying with a Mention of Cocaine in Texas: 1992–2004**



SOURCE: Department of State Health Services

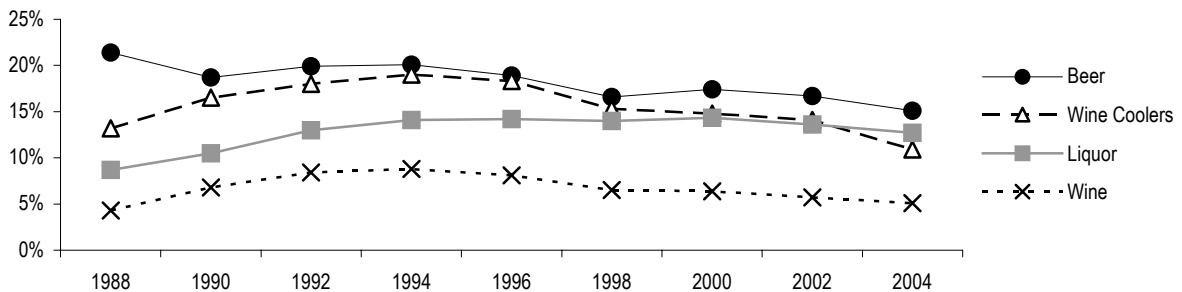
**Exhibit 7. Price of a Kilogram of Cocaine in Texas as Reported by the DEA: 1987–2006**

(Prices reported by half year since 1993.)



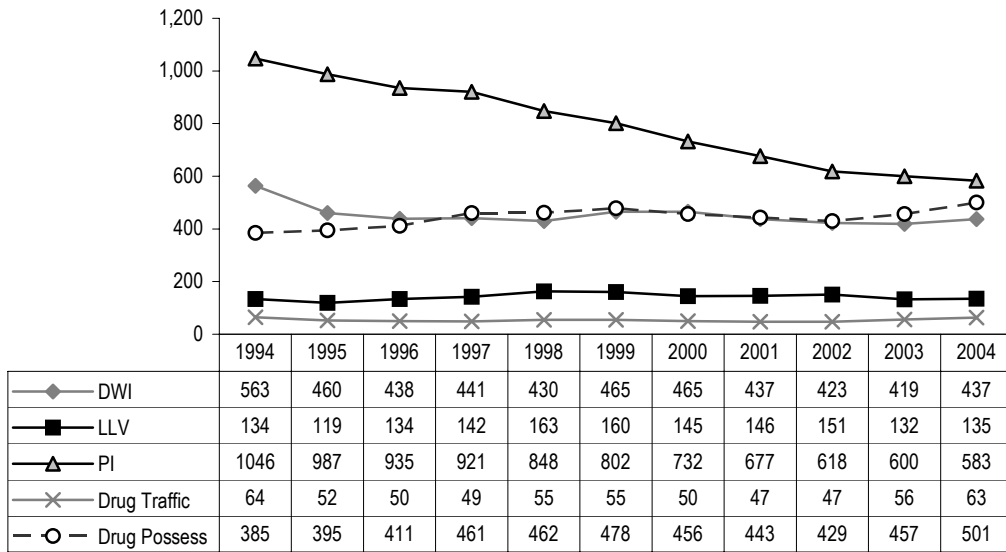
SOURCE: DEA

**Exhibit 8. Percentage of Texas Secondary Students Who Reported They Normally Consumed Five or More Drinks at One Time, by Specific Alcoholic Beverage: 1988–2004**



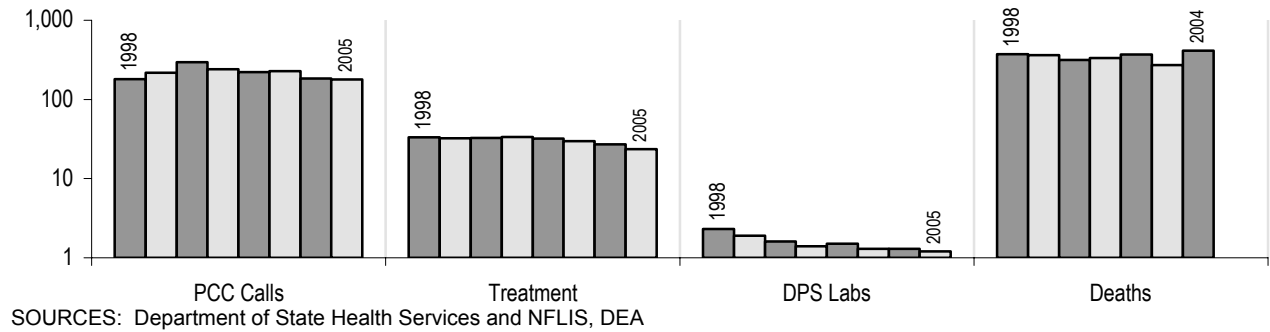
SOURCE: Department of State Health Services

**Exhibit 9. Texas Substance Abuse Arrests Per 100,000 Population in Texas: 1994–2004**



SOURCE: Texas Department of Public Safety

**Exhibit 10. Texas Poison Control Calls, Treatment Admissions, DPS Lab Exhibits, Deaths, and Purity for Heroin: 1998–2005**

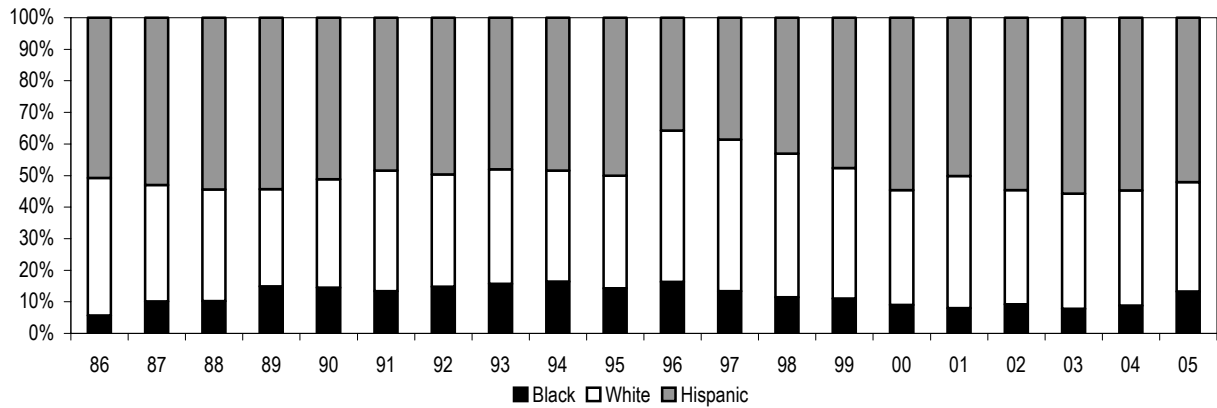


**Exhibit 11. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary Problem with Heroin by Route of Administration: 2005**

Characteristic	Inject	Inhale	Smoke	All <sup>1</sup>
Number of Admissions	4,162	651	43	4,856
% of Heroin Admissions	86	13	1	100
Lag-1st Use to Treatment (Years)	16	8	10	15
Average Age (Years)	36	30	31	36
% Male	66	51	65	64
% Black	10	31	5	13
% White	36	16	58	34
% Hispanic	52	50	33	51
% CJ Involved	28	36	26	29
% Employed	13	17	7	14
% Homeless	11	8	5	10

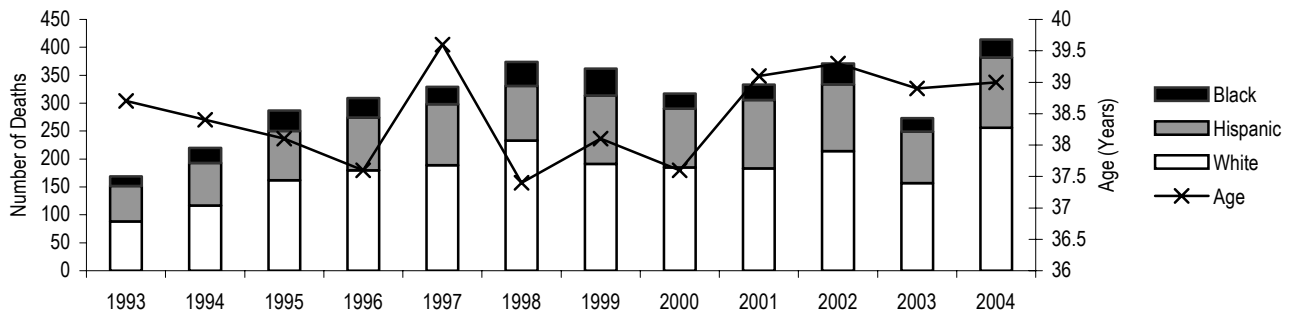
<sup>1</sup>Total includes clients with "other" routes of administration.  
SOURCE: Department of State Health Services

**Exhibit 12. Heroin Admissions to DSHS-Funded Treatment by Race/Ethnicity: 1986–2005**



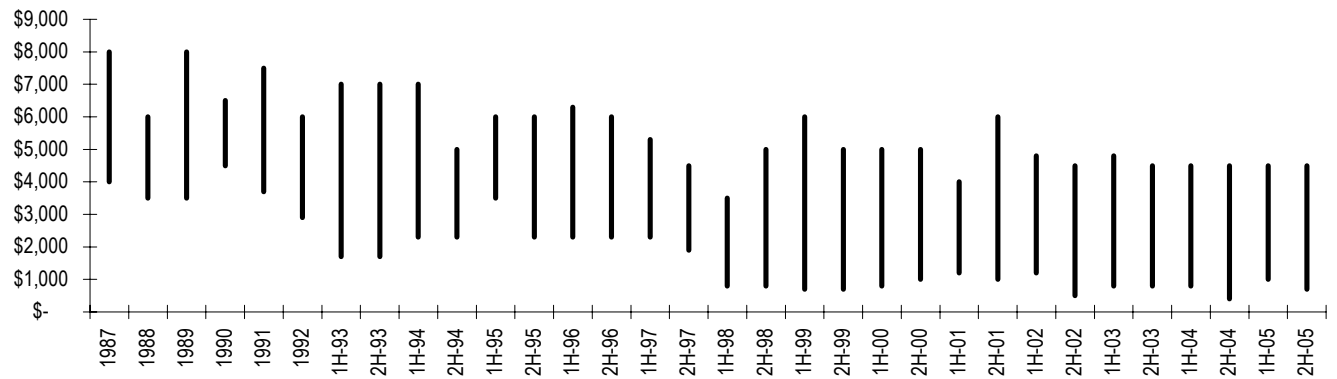
SOURCE: Department of State Health Services

**Exhibit 13. Age and Race/Ethnicity of Persons Dying with a Mention of Heroin in Texas: 1992–2004**



SOURCE: Department of State Health Services

**Exhibit 14. Price of an Ounce of Mexican Black Tar Heroin in Texas as Reported by the DEA: 1987–2005**



SOURCE: DEA

**Exhibit 15. Purity and Price per Milligram Pure of Heroin Purchased in Dallas, El Paso, Houston, and San Antonio by the DEA: 1995–2005**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Dallas</b>											
Purity (%)	6.8	3.5	7.0	11.8	14.0	16.0	13.4	17.2	13.3	16.3	11.6
Price	\$2.34	\$6.66	\$4.16	\$1.06	\$1.01	\$0.69	\$1.36	\$0.75	\$0.98	\$0.90	\$1.11
<b>El Paso</b>											
Purity (%)					56.7	50.8	41.8	40.3	44.7	50.5	44.7
Price					\$0.49	\$0.34	\$0.44	\$0.27	\$0.40	\$0.27	\$0.40
<b>Houston</b>											
Purity (%)	16.0	26.1	16.3	34.8	17.4	18.2	11.3	28.2	27.4	24.8	24.4
Price	\$1.36	\$2.15	\$2.20	\$2.43	\$1.24	\$1.14	\$1.51	\$0.64	\$0.45	\$0.44	\$1.11
<b>San Antonio</b>											
Purity (%)									8.2	6.4	11.2
Price									\$1.97	\$2.24	\$0.56

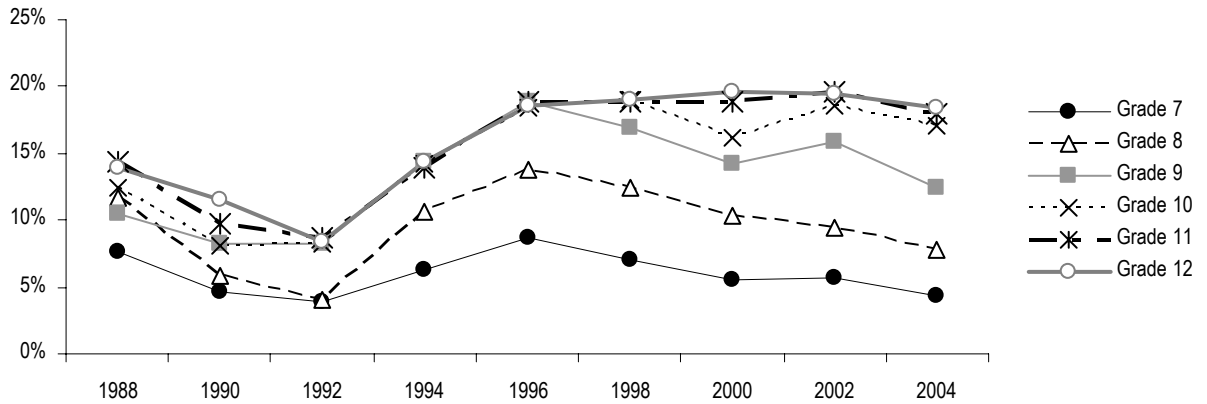
SOURCE: DEA

**Exhibit 16. Hydrocodone, Oxycodone, Methadone, and Fentanyl Indicators in Texas: 1998–2005**

Indicator	1998	1999	2000	2001	2002	2003	2004	2005
<b>Poison Control Center Cases of Abuse and Misuse</b>								
Fentanyl			9	2	3	11	17	10
Hydrocodone	192	264	286	339	429	414	516	505
Methadone	16	19	21	26	50	41	106	71
Oxycodone	12	26	22	34	68	64	77	50
<b>DSHS Treatment Admissions</b>								
Methadone	53	68	44	50	63	66	55	70
"Other Opiates**"	542	802	879	1,336	1,752	2,227	1,344	2,712
<b>Deaths with Mention of Substance (DSHS)</b>								
Fentanyl	8	5	4	7	22	10	32	
Hydrocodone	5	25	52	107	168	140	201	
Methadone	30	32	62	90	134	122	164	
Oxycodone	1	8	20	40	56	60	66	
<b>Drug Exhibits Identified by DPS Laboratories</b>								
Fentanyl	0	3	1	7	4	2	14	7
Hydrocodone	52	479	629	771	747	1,212	1,598	1,789
Methadone	1	19	22	42	58	70	130	133
Oxycodone	10	36	72	115	106	174	270	237

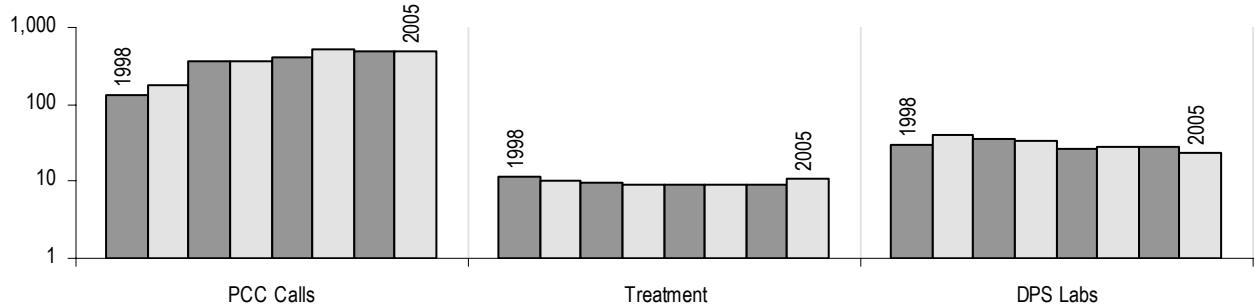
SOURCES: Department of State Health Services and NFLIS, DEA

**Exhibit 17. Percentage of Texas Secondary Students Who Had Used Marijuana in the Past Month, by Grade: 1988–2004**



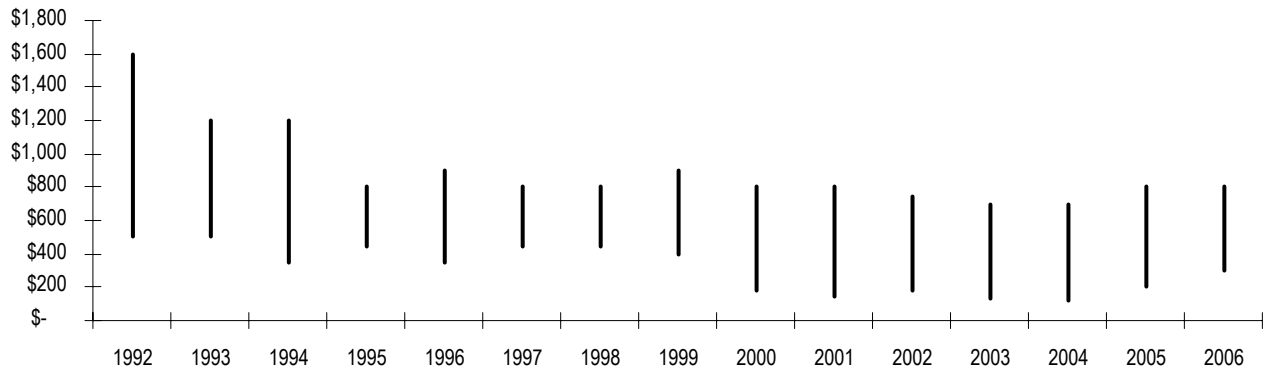
SOURCE: Department of State Health Services

**Exhibit 18. Texas Poison Control Calls, Treatment Admissions, and DPS Lab Exhibits for Cannabis: 1998–2005**



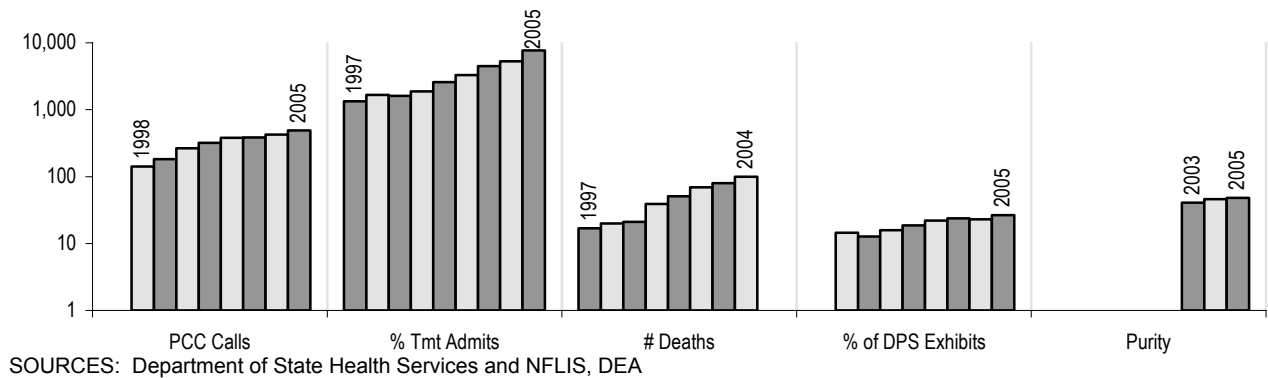
SOURCES: Department of State Health Services and NFLIS, DEA

**Exhibit 19. Price of a Pound of Commercial Grade Marijuana in Texas as Reported by the DEA: 1992–2006**

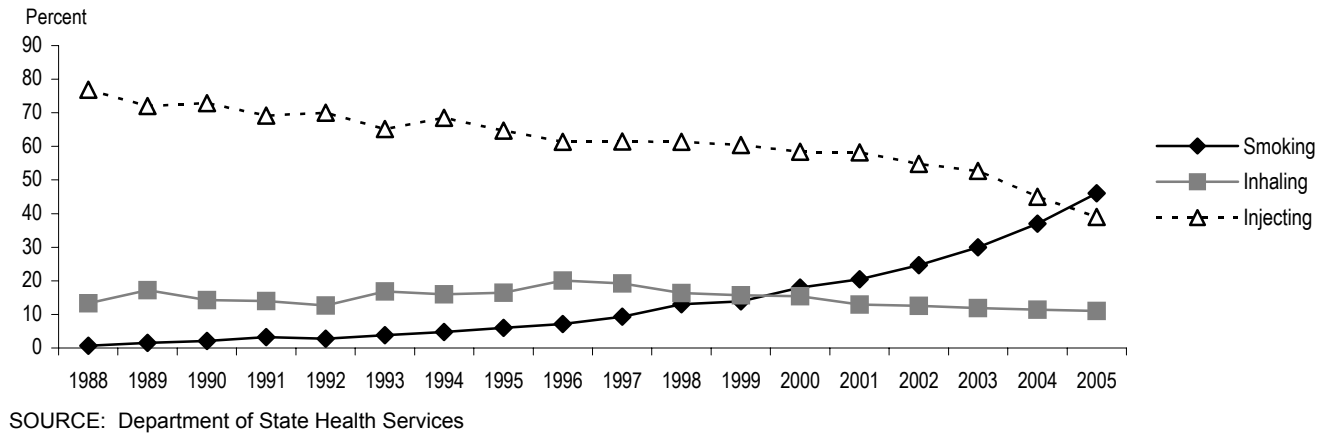


SOURCE: DEA

**Exhibit 20. Poison Control Calls, Treatment Admissions, Deaths, Lab Exhibits, and Purity of Methamphetamine: 1997–2005**



**Exhibit 21. Route of Administration of Methamphetamine by Clients Admitted to DSHS-Funded Programs: 1988–2005**



**Exhibit 22. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary Problem of Amphetamines or Methamphetamines by Route of Administration: 2005**

Characteristic	Smoke	Inject	Inhale	Oral	All <sup>1</sup>
Number of Admissions	3,466	2,972	796	343	7,714
% of Stimulant Admissions	46	39	11	5	100
Lag-1st Use to Treatment (Years)	8	13	9	10	10
Average Age (Years)	28	31	30	31	29
% Male	44	49	43	40	46
% Black	2	0	2	2	1
% White	82	93	82	83	86
% Hispanic	14	5	15	11	10
% CJ Involved	51	53	51	46	52
% Employed	26	17	31	28	23
% Homeless	9	11	7	8	9

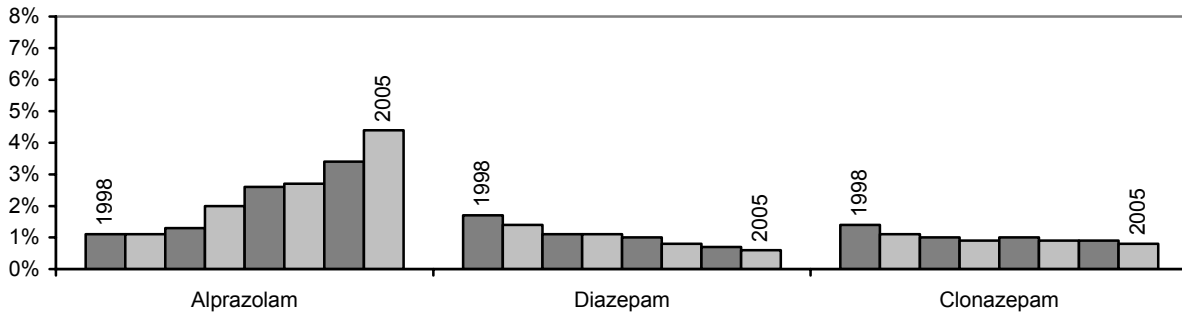
SOURCE: Department of State Health Services

**Exhibit 23. Percent of Items Analyzed by Texas DPS Laboratories as Methamphetamine, by County and City: 2001 and 2005**

Laboratory	2001	2005
Hidalgo (McAllen)	0%	1%
Webb (Laredo)	1%	2%
El Paso (El Paso)	4%	4%
Nueces (Corpus Christi)	9%	16%
Harris (Houston)	6%	12%
Travis (Austin)	17%	28%
McLennan (Waco)	19%	32%
Smith (Tyler)	16%	34%
Dallas (Dallas)	32%	38%
Midland (Odessa)	12%	25%
Taylor (Abilene)	41%	55%
Lubbock (Lubbock)	23%	28%
Potter (Amarillo)	41%	43%

SOURCE: NFLIS, DEA

**Exhibit 24. Benzodiazepines Identified by DPS Labs in Texas: 1998–2005**



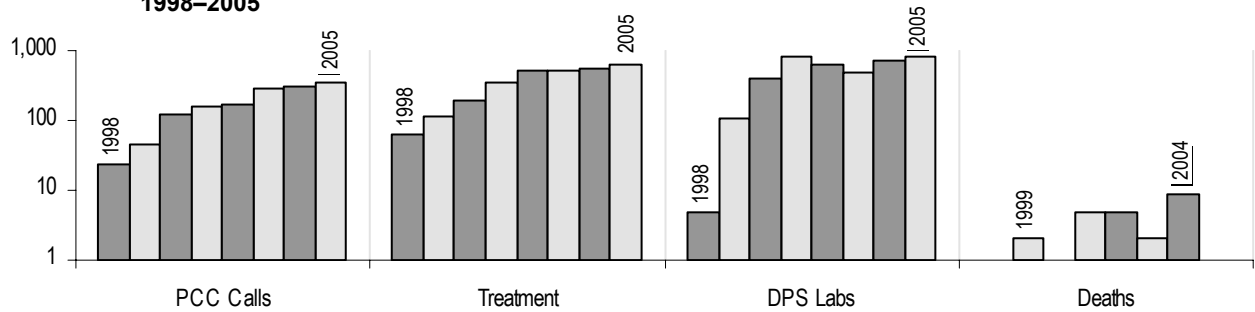
SOURCE: NFLIS, DEA

**Exhibit 25. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary, Secondary, or Tertiary Problem with Club Drugs: 2005**

Characteristic	GHB	Hallucinogens	Ecstasy	PCP	Rohypnol
# Admissions	48	223	640	223	198
% Male	48	72	53	42	69
% White	98	59	48	12	1
% Hispanic	2	23	24	5	98
% Black	0	18	26	82	1
Average Age (Years)	30	23	22	26	16
% Criminal Justice Involved	63	64	68	56	78
% History Needle Use	44	27	14	5	7
% Primary Drug=Club Drug	23	26	18	49	12
Other Primary Drug					
% Marijuana	2	34	34	17	53
% Alcohol	4	9	8	3	10
% Methamphetamine/Amphetamines	58	11	15	2	0
% Powder Cocaine	0	6	13	13	18
% Crack Cocaine	2	5	5	10	2
% Heroin	0	3	1	0	7
% Other Opiates	8	3	1	2	0

SOURCE: Department of State Health Services

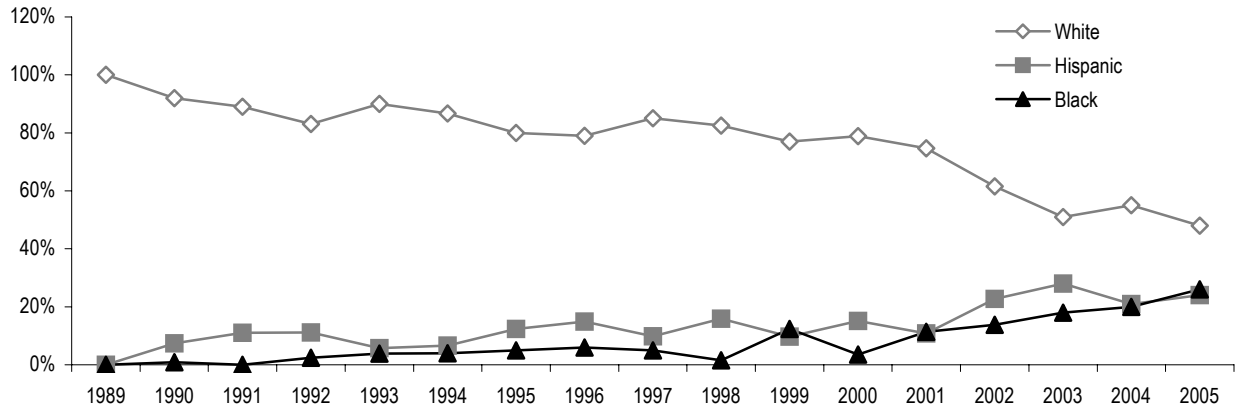
**Exhibit 26. Texas Poison Control Calls, Treatment Admissions, Lab Exhibits, and Deaths for Ecstasy: 1998–2005**



SOURCES: Department of State Health Services and NFLIS, DEA

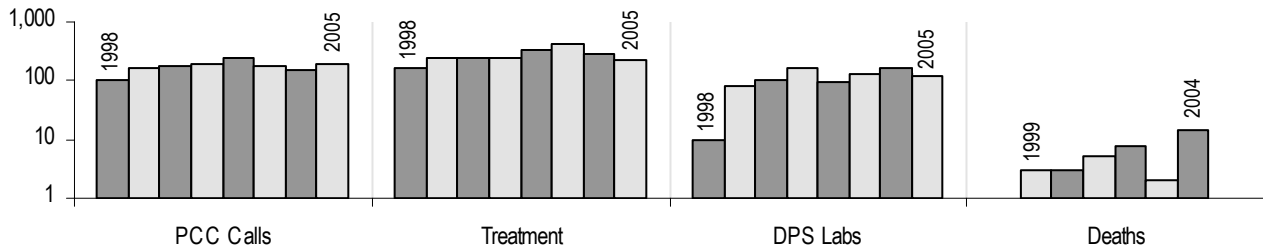


**Exhibit 27. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Problem with Ecstasy: 1989–2005**



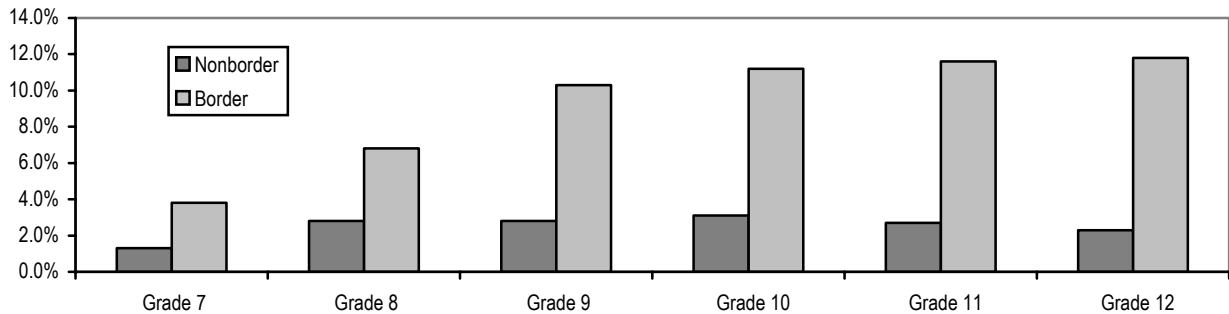
SOURCE: Department of State Health Services

**Exhibit 28. Texas Poison Control Calls, Treatment Admissions, Lab Exhibits, and Deaths for PCP: 1998–2005**



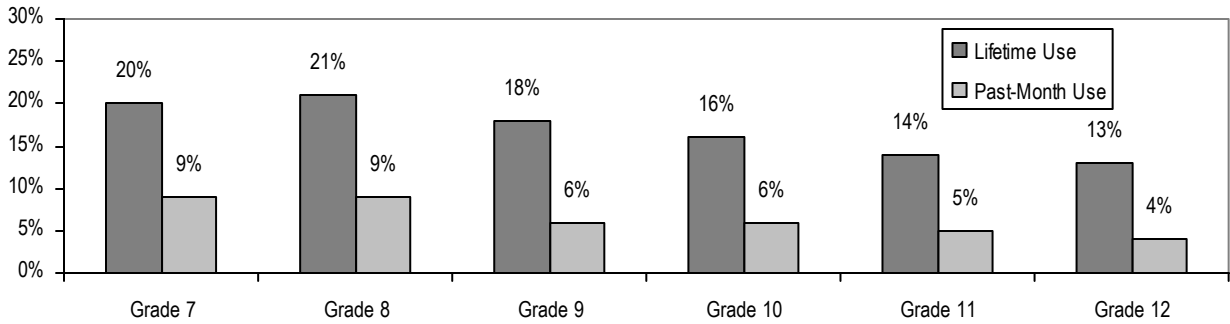
SOURCES: Department of State Health Services and NFLIS, DEA

**Exhibit 29. Percentage of Border and Nonborder Texas Secondary Students Who Had Ever Used Rohypnol, by Grade: 2004**



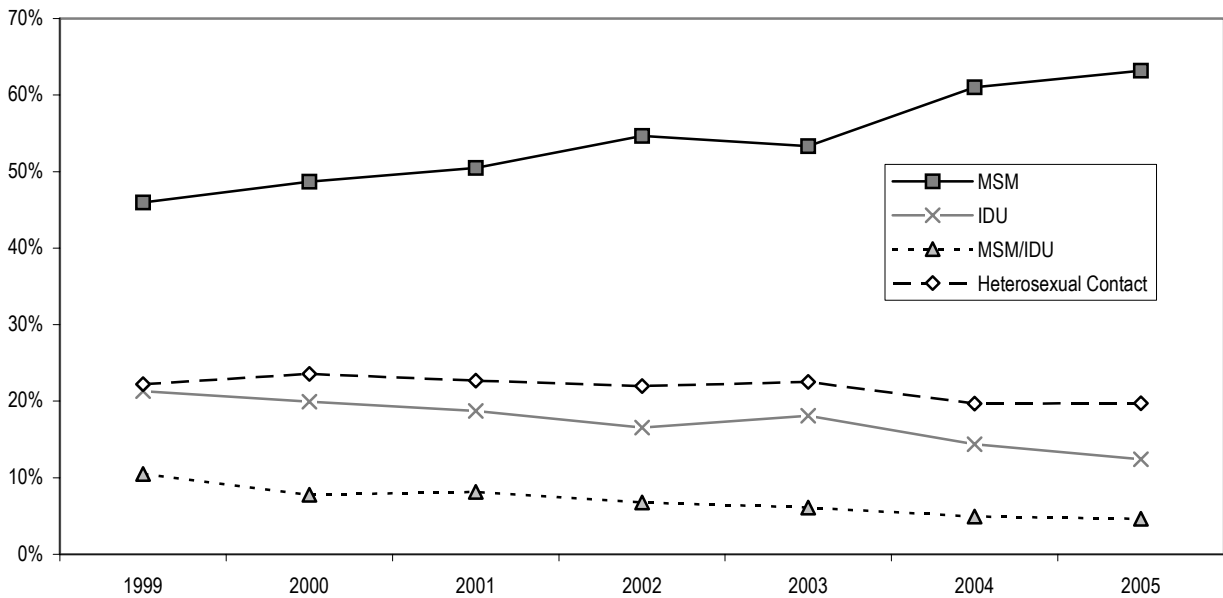
SOURCE: Department of State Health Services

**Exhibit 30. Percentage of Texas Secondary Students Who Had Used Inhalants Ever or in the Past Month, by Grade: 2004**



SOURCE: Department of State Health Services

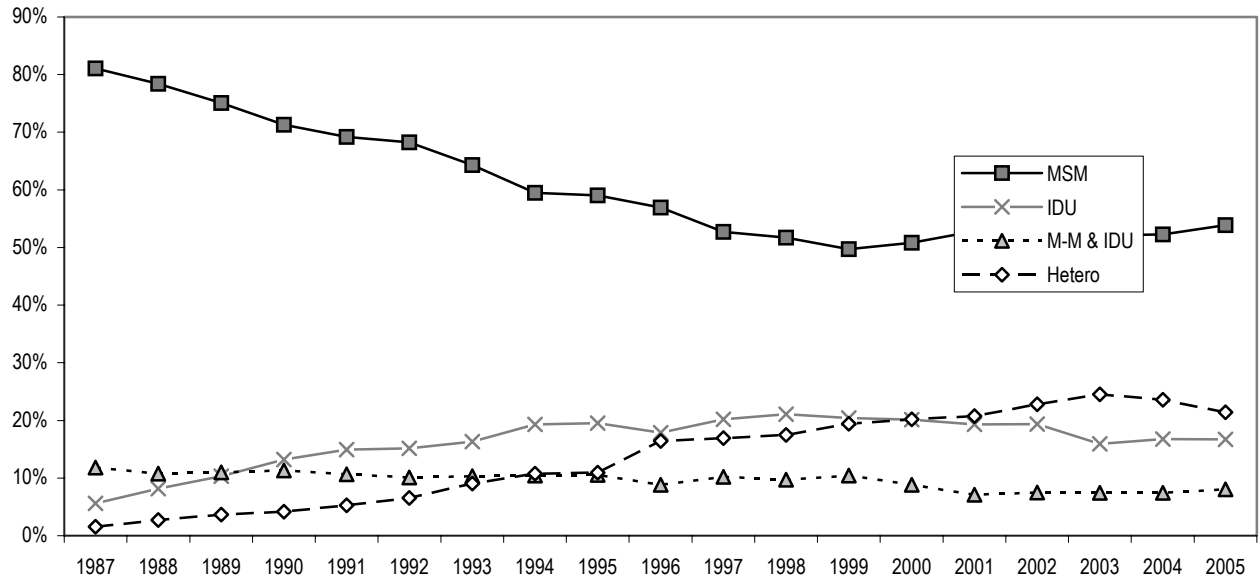
**Exhibit 31. HIV Cases<sup>1</sup> in Texas by Selected Modes of Exposure and Percent: 1999–2005**



<sup>1</sup>Cases with risk not classified excluded.

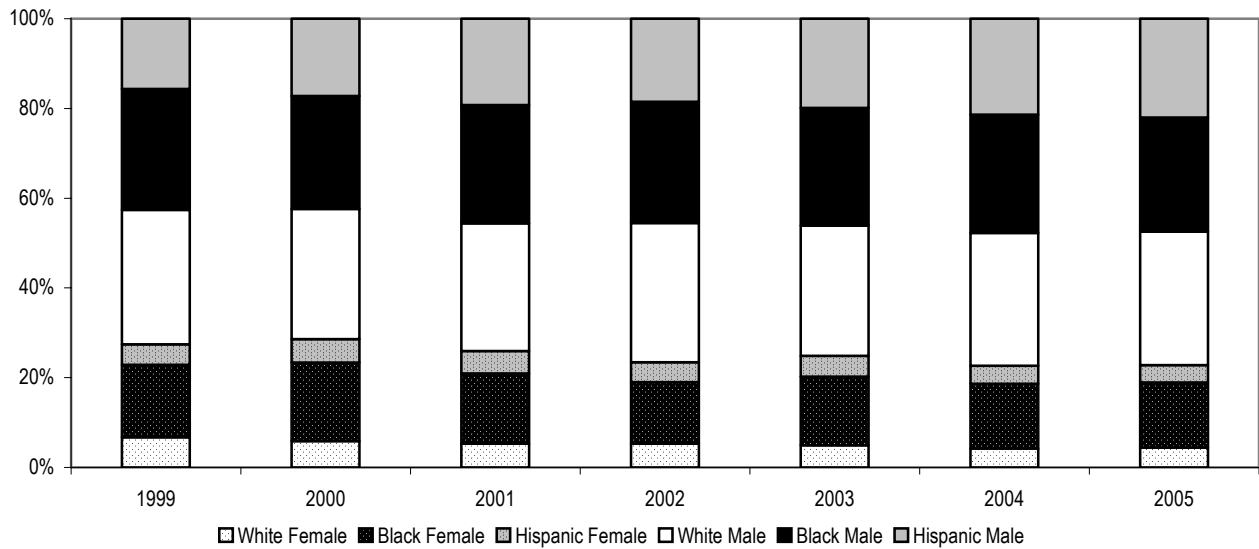
SOURCE: Department of State Health Services

**Exhibit 32. AIDS Cases<sup>1</sup> in Texas by Modes of Exposure and Percent: 1987–2005**



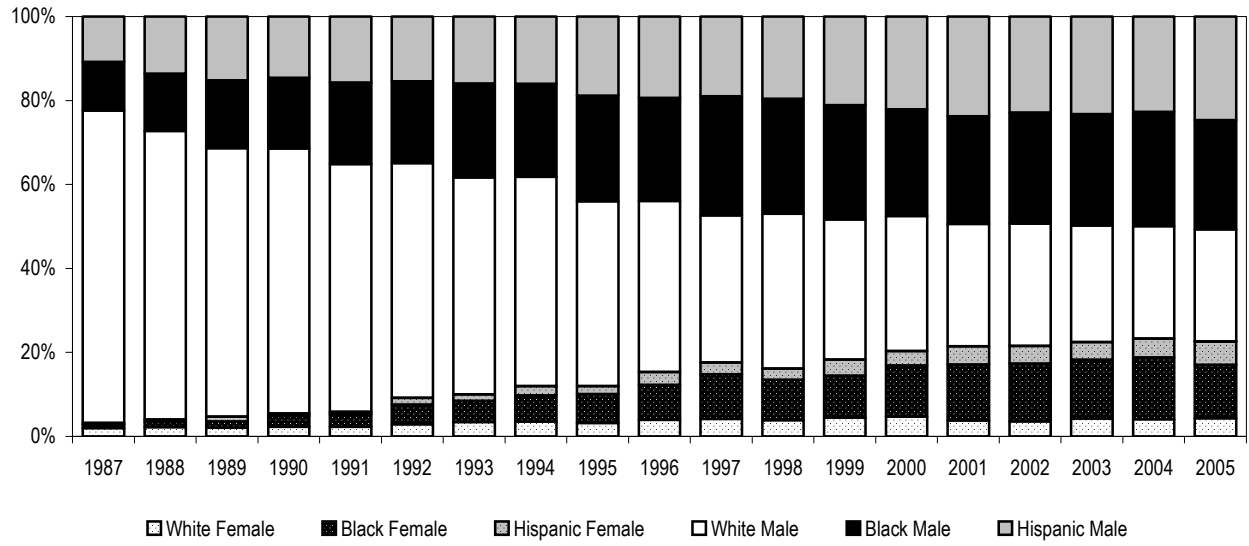
<sup>1</sup>Cases with risk not classified excluded.  
SOURCE: Department of State Health Services

**Exhibit 33. Texas Male and Female HIV Cases by Race/Ethnicity: 1999-2005**



SOURCE: Department of State Health Services

**Exhibit 34. Texas Male and Female AIDS Cases by Race/Ethnicity: 1987-2005**



SOURCE: Department of State Health Services

**Exhibit 35. Adult and Youth Admissions to DSHS-Funded Treatment Programs: January–December 2005**

Primary Substance	Total Admissions	% of All Admissions	Avg. Age	Avg. Age 1 <sup>st</sup> Use	Avg. Lag 1 <sup>st</sup> Use to Admission	% No Prior Treatment	% Male	% Using Needles	% History IV Drug
Total	56,858	100.0	31.6	19.1	13	45.9	58.3	17.5	30.1
Heroin	5,040	8.9	35.6	21.3	15	23.9	63.6	82.7	86.5
Non Rx Methadone	70	0.1	32.3	25.5	7	28.6	45.7	32.9	62.9
Other Opiates	2,712	4.8	35.0	25.3	10	35.5	45.8	16.3	39.0
Alcohol	13,374	23.5	37.0	15.7	22	42.0	66.2	4.8	21.0
Depressants	804	1.4	28.6	21.6	8	46.1	34.6	6.0	20.5
Amphetamines	7,721	13.6	29.4	19.9	10	50.3	45.6	39.1	51.7
Cocaine	6,084	10.7	30.5	20.9	10	49.8	49.9	14.4	23.4
Marijuana	11,789	20.7	21.3	13.9	8	67.6	70.5	1.7	5.4
Hallucinogens	168	0.3	24.7	18.4	7	54.2	47.0	7.1	11.9
Other Drugs	342	0.6	25.0	19.0	7	57.9	52.9	6.4	16.1
Crack	8,754	15.4	37.3	25.6	12	31.7	50.5	5.4	29.3

Primary Substance	% Black	% White	% Hispanic	% Employed	% Involved CJ/Legal System	Avg. Education	% Homeless	Avg. Income	Pregnant at Admission
Total	18.3	48.9	30.6	22.4	49.5	11.3	9.7	\$5,753	1,291
Heroin	12.6	33.9	51.4	13.2	29.0	11.3	10.0	\$3,490	124
Non Rx Methadone	2.9	88.6	8.6	10.3	25.7	12.0	8.6	\$3,269	2
Other Opiates	7.3	82.9	8.5	13.2	29.6	12.2	5.6	\$8,018	36
Alcohol	12.2	57.0	28.5	26.6	46.4	11.8	11.4	\$7,267	88
Depressants	8.7	71.4	18.0	21.0	45.3	11.5	5.2	\$4,136	31
Amphetamines	1.2	86.3	10.4	20.6	51.6	11.5	9.0	\$5,169	237
Cocaine	14.0	32.3	51.7	25.8	47.7	11.2	6.2	\$5,581	226
Marijuana	22.5	31.8	42.8	38.3	75.5	9.9	6.9	\$6,338	278
Hallucinogens	72.6	14.9	12.5	18.6	56.5	10.8	6.5	\$2,526	8
Other Drugs	17.5	43.6	35.7	36.8	64.6	10.5	7.6	\$5,775	3
Crack	46.8	34.5	17.1	16.4	36.2	11.7	15.9	\$4,508	258

Primary Substance	% on Medication	% w/ Emerg. Rm. Visit	% Sickness or Health Problems	% Employment Problems	% Family or Marital Problems	% Social or Peer Problems	% Psych./ Emotional Problems	% Drug/ Alcohol Problems
Total	21.0	31.8	25.1	54.1	52.3	42.5	45.0	67.5
Heroin	36.6	30.8	24.1	68.4	62.2	56.3	44.1	85.9
Non Rx Methadone	36.7	61.8	48.5	72.1	67.6	64.7	73.5	91.2
Other Opiates	32.8	50.0	40.2	70.2	71.2	61.2	68.0	86.7
Alcohol	22.1	35.7	27.3	55.2	52.3	45.0	48.7	69.0
Depressants	31.1	46.5	34.7	60.0	62.8	50.0	59.2	75.6
Amphetamines	17.6	38.1	27.5	60.0	60.4	46.8	53.6	73.6
Cocaine	17.3	32.2	22.0	48.9	50.1	36.2	41.9	63.6
Marijuana	12.2	13.9	14.5	35.1	31.9	23.3	22.9	42.9
Hallucinogens	16.1	31.0	18.5	42.3	38.1	36.3	36.3	61.3
Other Drugs	27.5	22.5	22.8	43.3	41.2	33.0	38.6	52.9
Crack	23.1	37.9	31.4	63.6	62.6	51.1	56.3	78.9

SOURCE: Department of State Health Services

# Patterns and Trends of Drug Abuse in Washington, DC

Erin Artigiani, M.A.; Margaret Hsu, M.H.S.; Cheryl Rinehart, B.A.; and Eric Wish, Ph.D.<sup>1</sup>

## ABSTRACT

*Cocaine/crack, marijuana, and heroin continued to be the main illicit drug problems in Washington, DC, in 2005 and early 2006. The use and availability of PCP declined in 2004 and remained about the same in 2005. Cocaine continued to be one of the most serious drugs of abuse in the District, as evidenced by the fact that more adult arrestees tested positive for cocaine than for any other drug in 2005. More seized items tested positive for cocaine than for any other drug in 2005. Drug-related deaths, however, were more likely to be related to opiates than to cocaine in 2004. Pretrial Services test results indicate that PCP positives increased slightly in 2005 for both adults and juveniles. In early 2006, however, PCP positives for juveniles began to decline. Juvenile arrestees were more likely to test positive for marijuana than for any other drug. Arrest data from the Metropolitan Police Department show slight increases in arrests related to cocaine/crack and PCP in 2005. While other parts of the country have seen shifts in the use of methamphetamine, use remains low and confined to isolated communities in DC. Research is currently under way to better understand the use of methamphetamine in these communities.*

## INTRODUCTION

### Area Description

The Nation's Capital is home to approximately 570,898 people residing in 8 wards that remain largely distinguishable by race and economic status (U.S. Bureau of the Census, 2001 update). The northwest part of the city tends to be home to residents who are wealthy and White, while the northeast and southeast tend to be home to residents who are poor and African-American. Slightly more females than males live in DC, and the majority of the District's population continues to be African-American (60 percent). Nearly one-third of the population are White (31 percent), and the remainder are primarily Hispanic or Asian (U.S. Bureau of the Census, 2000

Census). The population of the District is slightly older than the Nation's general population. One in five residents is younger than 18, and slightly more than 12 percent are age 65 and older. More than one-third (39.1 percent) of adults age 25 or older have at least a bachelor's degree (Pach et al. 2002).

Data from the 2000 census reveal several key demographic changes since 1990. The total population decreased by 5.7 percent during the 1990s, from 606,900 in 1990 to 572,059 in 2000. The number of African-Americans decreased by 14.1 percent, the number of Asians increased by 38.6 percent, and the number of Hispanic residents grew by 37.4 percent. The White population also increased by a more modest 2 percent during this time period (Pach et al. 2002).

Alcohol abuse costs the District approximately \$700 million per year, and illicit drug use costs about \$500 million per year. In fiscal year (FY) 2005, the city spent approximately \$360 million to address the problem. Nearly 1 in 10 residents (approximately 60,000) are addicted to illegal drugs and/or alcohol. At least one-half (26,000–42,000) of these individuals have co-occurring substance abuse and mental health disorders. The DC Household Survey indicates that first-time drug use occurs at a younger age in the District than in the rest of the Nation (Citywide Comprehensive Substance Abuse Strategy for the District of Columbia 2003).

Reports involving substantiated substance abuse allegations were filed on nearly 400 families in FY 2005 (exhibit 1). These reports involved nearly 600 children. The number of children in families with substance abuse problems has stayed about the same since FY 2003, but the number of newborns testing positive or born addicted has nearly doubled from 80 in FY 2003 to 151 in FY 2005. This increase, however, may be more a product of changes in agency policies, thus making staff better able to identify these children, than an actual increase in newborns exposed to substance abuse.

Homicides in the District decreased sharply from 248 in 2003 to 198 in 2004 and continued to decline in 2005 to 195. In 2004, drugs were listed as one of the four most common motives behind these homicides, along with arguments, retaliation, and robberies. The total number of index crimes reported citywide in 2004 decreased 18 percent from 40,546 in 2003 to 33,252 in 2004.

The Washington/Baltimore HIDTA has identified 42 drug trafficking organizations operating in Washington, DC (*Washington/Baltimore HIDTA 2007 Threat As-*

<sup>1</sup>The authors are affiliated with the Center for Substance Abuse Research, College Park, Maryland. Some background material was taken from prior CEWG reports.

essment). The major drug problems in the District continue to be cocaine/crack, marijuana, and heroin. The use and availability of phencyclidine (PCP) remained steady in 2005 after decreasing in 2004. The use of club drugs like methylenedioxymethamphetamine (MDMA) also appears to be continuing to decrease.

Information from the Department of Justice's National Drug Intelligence Center (NDIC) suggests that the District has a wide variety of drug transportation options, including an extensive highway system, three major airports, and rail and bus systems. While both NDIC and ethnographic information suggest that traffickers extensively use all of these options, Washington appears to be a secondary drug distribution center; most drugs intended for distribution in DC are distributed first to larger cities, such as New York and Miami (Pach et al. 2002). The street-level dealing in DC was described as less organized and more free-flowing than the organized networks in these larger cities.

#### Data Sources

A number of sources were used to obtain comprehensive information regarding the drug use trends and patterns in Washington, DC. Data for this report were obtained from the sources shown below. In addition, interviews were conducted with a sample of substance abuse professionals in the fields of criminal justice, public health, and recovery.

- **Drug-related death data** for 2004 were obtained from the District's Chief Medical Examiner on December 15, 2005. Exhibit 2 shows the gender and ages of drug-related decedents in the city for 2004.
- **Student survey data** were adapted by the Center for Substance Abuse Research (CESAR) from the 2005 DC Public Schools Youth Risk Behavior Survey (YRBS).
- **Arrest, crime, and law enforcement action data** were derived from the Metropolitan Police Department (MPD) Web site, <www.mpdc.dc.gov>, which shows crime statistics and press releases pertaining to law enforcement action through December 2005, and a special data run.
- **Arrestee urinalysis data** were derived from the District of Columbia Pretrial Services Agency for adult and juvenile arrestees from 2000 through March 2006.

- **Drug prices and trafficking trends** were obtained from the NDIC *Narcotics Digest Weekly Special Issue: Illicit Drug Prices January 2004–June 2004*, the Washington-Baltimore High Intensity Drug Trafficking Area (HIDTA) "Washington/Baltimore Threat Assessment" reports released in 2003 and 2004, and the Drug Enforcement Administration (DEA) for the third quarter of 2005.
- **Test results on drug items analyzed** by local crime labs were obtained from the National Forensic Laboratory Information System (NFLIS) for FY 2005.
- **Regional counts on methamphetamine labs seized** were obtained from the El Paso Intelligence Center (EPIC), National Clandestine Laboratory Seizure Database, and the Washington/Baltimore HIDTA.
- **Other information on drug use, including prescription drug use among college students and urinalysis data on probationers/parolees**, was derived from CESAR research studies and Drug Early Warning System county indicators, including *DEWS Investigates* reports and *CESAR Briefings*, available at <www.dewsonline.org> and <www.cesar.umd.edu>, respectively.
- **Census data** for the District of Columbia were derived from the "Council of the District of Columbia; Subcommittee on Labor, Voting Rights, and Redistricting; Testimony of the Office of Planning/State Data Center on Bill 14-137, The Ward Redistricting Amendment Act of 2002."
- **Additional information**, including data on acquired immunodeficiency syndrome (AIDS) and the human immunodeficiency virus (HIV), was provided by the Child and Family Services Agency, the HIV/AIDS Administration, and other members of the DC Epidemiology Workgroup.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

Cocaine, particularly in the form of crack, remains the most serious drug of abuse in the District, accounting for more adult arrestee positive drug tests than any other drug and more deaths than any drug besides opiates other than heroin. Only heroin accounted for a higher percentage of treatment admissions in 2003. Cocaine/crack continues to be sold at

open-air markets in the poorer parts of the city and has changed little in price. The DEA reported that powder cocaine sold for \$23,000–\$27,000 per kilogram wholesale and \$800–\$1,200 per ounce midlevel during 2005. Crack also sold for \$800–\$1,200 per ounce midlevel and \$1–\$20 per rock retail. NFLIS data for 2005 show that nearly one-half (44.4 percent) of analyzed drug items tested positive for cocaine, more than for any other drug.

Cocaine-involved deaths totaled 62 in 2004 (exhibit 3).

Reports from the Pretrial Services Agency for 2005 indicate that the percentage of adult arrestees testing positive for cocaine remained about the same as in 2000 (exhibits 4a and 4b). In 2005, 37 percent of adult arrestees in Pretrial Services tested positive for cocaine. The percentage testing positive during the first 3 months of 2006 increased slightly to 38.6 percent. Nearly 4 percent of juvenile arrestees tested positive for cocaine in 2005 (exhibits 5a and 5b). This percentage remained about the same in 2006.

According to data from the MPD, drug-related arrests related to cocaine and crack increased substantially in 2004 and continued to increase in 2005. For the first time in 5 years, cocaine/crack-related arrests outnumber marijuana-related arrests (exhibit 6). The majority of these arrests involved adults and the sale or manufacture of these drugs. The arrests of juveniles for the sale or manufacture of cocaine and crack increased slightly (data not shown) in 2004 but decreased again in 2005. According to the Washington/Baltimore HIDTA, 60 percent of cocaine seizures were less than 5 pounds in 2005.

The results of the 2005 YRBS indicate that the percentage of public school students in grades 9–12 reporting lifetime use of any form of cocaine decreased from 6.2 percent in 2003 to 2.1 percent in 2005 (exhibit 7a).

### Heroin

Heroin represents one of the three leading drug problems in the District, along with cocaine and marijuana. The MPD describes crack as a weekend drug, but heroin as having a more steady ongoing market. The DEA reported that heroin sold for \$70,000–\$100,000 per kilogram in the Baltimore area and for \$3,700–\$4,000 per ounce midlevel and \$10 per bag retail in the DC area during 2005. NFLIS data for 2005 show that approximately 11 percent of analyzed drug items tested positive for heroin, making it the third most frequently found drug.

Seventy-three deaths involving opiates/opioids were reported by the medical examiner in 2004 (exhibit 3).

As with cocaine, reports from the Pretrial Services Agency indicate that the percentage of adult arrestees testing positive for opiates remained about the same from 2001 through the first 3 months of 2006 (exhibits 4a and 4b). From January through March 2006, 8.9 percent of adult arrestees tested positive for opiates. Juvenile arrestees were not tested for opiates during this time period.

According to the MPD, drug arrests in DC related to heroin were third in frequency after those for marijuana and cocaine (exhibit 6). Heroin arrests involving adults increased steadily from 2002 to 2004 (20 percent) but decreased slightly in 2005. More than one-half (53 percent) of these arrests involved the sale or manufacture of heroin, and nearly all involved adults. The number of arrests of juveniles for the sale or manufacture of heroin decreased from 14 in 2003 to 5 in 2004. There were seven such arrests in 2005.

### Other Opiates/Narcotics

Seventy-three deaths involving opiates/opioids were reported in 2004 (exhibit 3); 14 substances were specified as methadone, and 62 were listed as other opiates.

Oxycodone and methadone combined accounted for less than 1 percent of analyzed drug items reported to NFLIS in 2005. According to the DEA, the price per dosage unit ranged from \$4.50 for Percodan/Percocet, to \$5.00 for generic hydrocodone, to \$35.00 for OxyContin during the third quarter of 2005.

A new trend in other opiates being monitored by the CEWG is the mixing of fentanyl with low potency heroin or cocaine. Several areas experienced a surge in overdoses and deaths resulting from this mix starting in April 2006. In mid-April, Maryland State Police and the Maryland Poison Center reported on a cluster of six overdoses and one fatality in counties on the Eastern Shore. Paraphernalia from the scenes revealed traces of fentanyl, procaine, and heroin. The fatality tested positive for fentanyl and diltiazem.

Since the original cluster, the Maryland Office of the Chief Medical Examiner has reported four additional fatalities and three fatalities suspected of involving fentanyl. The four confirmed fatalities tested positive for a combination of fentanyl, cocaine, and morphine/heroin. The fentanyl from at least one of the cases described above is suspected to have come from a clandestine laboratory.



## Marijuana

Marijuana is widely used in the District, as it is in many other jurisdictions. Commercial-grade and high-grade marijuana are available for wide-ranging, but relatively stable prices. Most of the marijuana is transported into the District via either shipping companies or large cardboard barrels in trucks and hidden compartments in vehicles, according to the Washington/Baltimore HIDTA. The DEA reports that high quality marijuana is imported from Canada by Vietnamese groups. There are an increasing number of indoor grows as well. In fact, 233 plants (with an estimated street value of \$660,000), several weapons, and thousands of dollars worth of equipment were seized in an indoor grow bust in northeast DC in January 2006, according to HIDTA. Nearly all (87 percent) seizures in 2005, however, were fewer than 25 pounds (*Washington/Baltimore HIDTA 2007 Threat Assessment*).

The DEA reported that marijuana sold for \$125–\$150 per ounce and \$1,200–\$1,600 per pound for commercial grade during 2005. Hydroponic sold for more than twice as much during this time. NFLIS data for 2005 show that approximately 36 percent of analyzed drug items tested positive for marijuana, which made marijuana the second most frequently found drug.

No marijuana-involved deaths were reported in 2004.

The Pretrial Services Agency does not test adult arrestees for marijuana; however, more than one-half of juveniles tested positive for marijuana each year between 2000 and 2003. From 2004 through the first 3 months of 2006, approximately one-half of juveniles tested positive for marijuana (exhibits 5a and 5b). The percentage of juveniles testing positive for marijuana has decreased slowly since 1999.

According to data from the MPD, marijuana-related arrests accounted for 37 percent of all drug-related arrests in 2005 and more than one-half of possession arrests. These arrests increased substantially from 2002 to 2004 (30 percent) (exhibit 6). Nearly all of the 2005 arrests involved adults, and two-thirds (67 percent) involved the possession of marijuana. The arrests of juveniles for the possession and sale or manufacture of marijuana increased from 2003 to 2004 and decreased slightly in 2005.

The results of the 2005 YRBS also show a decrease in marijuana use by youth. The percentage of public school students in grades 9–12 reporting lifetime and past-month use decreased, respectively, from 41.7 and 23.5 percent in 2003 to 27.2 and 14.5 percent in 2005 (exhibits 7a and 7b).

## Phencyclidine

According to the MPD, the number of adult arrests related to PCP more than doubled from 2001 to 2003 (from 106 to 259) (exhibit 6). PCP was rapidly becoming the drug of choice at raves and nightclubs during this time, sometimes used in combination with marijuana and/or MDMA (ecstasy). In 2004, however, PCP use began to decline, and it continues to be well behind the use of crack and marijuana. PCP-related arrests declined 41 percent from 2003 to 2004, but they increased 16 percent in 2005, largely because of a 33-percent increase in possession arrests.

According to the *Washington/Baltimore HIDTA 2007 Threat Assessment*, no major labs manufacturing PCP have been found in the Baltimore/Washington region since 2002. In 2005, the Washington/Baltimore HIDTA identified a New York-based drug trafficking organization that transported PCP from Los Angeles to DC. As a result of this investigation, 14 people were convicted, and more than 6 gallons of PCP were seized. The DEA Washington field office reported that PCP can be sold alone or in combination with other drugs, most often marijuana.

NFLIS data for 2005 show that 2 percent of analyzed drug items tested positive for PCP, making it the fourth most frequently found drug after cocaine, marijuana, and heroin.

There were two PCP-related deaths in the metropolitan area in 2004 (exhibit 3).

Data from the Pretrial Services Agency show a rise in PCP use among adult arrestees, from the low single digits in the late 1990s to the mid-teens in 2002 and 2003 (exhibits 4a and 4b). Positive tests for PCP use among adults declined, however, in 2004 to 6.2 percent, but they increased slightly to 7.5 percent in 2005 and to 9.0 percent in the first 3 months of 2006. Trend data from 1987 to the present indicate that PCP use among the juvenile arrestee population mirrored that in the adult arrestee population (exhibits 5a and 5b), with spikes in the late 1980s, mid-1990s, and again in the current decade. The proportion of juveniles testing positive for PCP decreased from 13.4 percent in 2002 to 1.9 percent in 2004 but increased in 2005 to 3.4 percent. Only 2 percent of juveniles tested positive during the first 3 months of 2006.

## Amphetamines/Methamphetamine

Abuse of amphetamines and methamphetamine does not appear to be a major problem in the District. There were no deaths related to either methamphetamine or amphetamine in 2004.

The Washington/Baltimore HIDTA and other members of the DC Epidemiological Workgroup report that methamphetamine use is established in the homosexual community. Detectives from the MPD reported in 2004 that both tablet and powder methamphetamine were visible in the Washington, DC, club scene. The Washington/Baltimore HIDTA indicates that, currently, crank, a less expensive and less pure form of methamphetamine, is the most common form available in the Washington/Baltimore region. Methamphetamine is trafficked from California through Atlanta to DC. There was one methamphetamine lab in the District in 2005, one residential search, and four parcel interdictions, according to HIDTA.

NFLIS data for 2005 show that approximately 1 percent of analyzed drug items tested positive for methamphetamine, making it the fifth most frequently found drug. The DEA reported that powder methamphetamine sold for \$100–\$150 per gram retail during the third quarter of 2005. The Pretrial Services Agency does not regularly test for methamphetamine; however, a special study testing for amphetamines found that approximately 2 percent of all specimens tested in April and May 2006 were positive for amphetamine. The majority of these tests confirmed for MDMA or methylenedioxyamphetamine (MDA).

Amphetamine-related arrests ranged from 4 to 10 each year from 2001 to 2004 (exhibit 6). All arrests during this time involved adults. In 2004, 6 of the 10 arrests involved the sale or manufacture of amphetamines, and 4 involved possession. There were 18 arrests recorded in 2005. However, this category now also contains barbiturates.

The results of the 2005 YRBS also indicate a very low level of methamphetamine use in DC. The percentage of public school students in grades 9–12 reporting lifetime use decreased from 5.7 percent in 2003 to 2.0 percent in 2005 (exhibit 7a).

### Prescription Stimulants

Drug Early Warning System (DEWS) staff at CESAR launched the Student Drug Research (SDR) survey in the spring of 2005 as a new tool for monitoring drug trends among college students. The SDR survey provides a unique opportunity to collect useful and timely information about emerging drugs and patterns of use among college students at one university in the DC metropolitan area. Beginning with the 2005 survey in the fall, the panel of student reporters, which had been comprised exclusively of 26 student reporters (SRs) believed to be at high-risk for exposure to drug use, was expanded to be more reflective of

the general student population by including an additional 21 SRs believed to be at low to moderate risk for exposure to drug use. The SRs have now participated in up to five surveys focused on their perceptions of drug availability and use by their peers during the spring and fall of 2005. The response rate has ranged from 62 to 88 percent.

Alcohol, marijuana, and Adderall continued to be the most frequently mentioned drugs. All were rated as easy or very easy to get around campus by the majority of SRs. Fifty percent or more of both the high risk and low risk students felt alcohol, marijuana, Adderall, Ritalin, and Percocet were very easy or easy to get around campus. Fifty percent of the high risk students also thought powder cocaine was very easy or easy to obtain. Fifty percent or more of low risk students also thought Vicodin, steroids, and OxyContin were very easy or easy to obtain.

Nonmedical use of prescription stimulants was perceived to be widespread. Respondents estimated approximately one-third or more of students has used Adderall and Ritalin some time during college and that approximately one-fifth to one-quarter use those drugs occasionally. Psychedelic mushrooms, powder cocaine, Concerta, Percocet, Vicodin, and ecstasy were all perceived to have been used by approximately one-quarter of students some time during college.

Both high risk and low risk students reported that the most common use for prescription stimulants was to aid in cramming for an exam, followed by other uses related to academics, including studying in general and taking prior to an exam to help focus. Student reporters rated the use of prescription stimulants for studying to be much less harmful than using them to party or mix with alcohol or other drugs. Other common reasons reported for using prescription stimulants include getting “up” for a party, increasing the effects of alcohol, and staying awake longer. Students using prescription stimulants to study tend to take the pills orally with some type of caffeine/energy drink, while those using them to party tend to use lower strength pills that they crush and snort.

A *DEWS Investigates* report on the results of the two initial surveys is available on the CESAR Web site at <[www.cesar.umd.edu](http://www.cesar.umd.edu)>.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The diagnosis of AIDS cases increased rapidly from 1981 to 1993, when cases peaked at 1,342. The number of cases decreased 49.0 percent from 1993 to 2001 but increased 37.5 percent in 2002. As of De-

ember 31, 2004, 16,130 cases had been identified in the District. More than one-half of these cases (51 percent) involved men having sex with men (exhibit 8). Two-thirds of the AIDS cases were Black, and 17 percent were White (exhibit 8). More than 40 percent were age 30–39, and nearly one-third were 40–49. Nearly one-third (31 percent; 4,106 cases) of the cases were caused by intravenous drug use. Nearly two-thirds of these cases (64 percent) were adult males (exhibit 8). The rate of AIDS deaths per 100,000 population decreased from 47 in 1998 to 25 in 2003, according to the *HIV/AIDS Epidemiologic Profile for the District of Columbia 2004*.

DEWS INVESTIGATES: WHO IS ENTERING TREATMENT FOR NARCOTIC PAIN RELIEVERS IN MARYLAND?

Trends in drug treatment admissions in DC tend to mirror the admissions in Maryland. This section highlights the results of a special analysis of admissions involving other opiates in Maryland.

Maryland treatment admissions for the misuse of other opiates (i.e., OxyContin, codeine, Demerol, and morphine) nearly tripled from FY 1999 to FY 2003 ( $n=3,655$ ). Little is known about people seeking treatment for problems with these drugs or the reasons for increases in these admissions. This study was conducted as a followup to the June 2004 *DEWS Investigates* report featuring case studies of five adults seeking private treatment for OxyContin abuse. They all had extensive histories of other drug use. To determine whether polydrug use is typical of those seeking treatment for other opiate use in Maryland and whether other opiate only treatment seekers exist at all, CESAR staff analyzed all treatment admissions for other opiate use in FY 2004.

Several possible explanations for the increase in treatment admissions involving other opiates have been identified. First, the increase coincided with the introduction of OxyContin, a more potent form of oxycodone than previously available. Second, people may have developed problems after legitimate prescription use and have no prior history of misusing other drugs. Third, there has been an increasing willingness among doctors to prescribe drugs for pain management, as evidenced by a rise in the number of prescriptions filled.

In FY 2004, there were 4,620 treatment admissions in Maryland for other opiate abuse, an increase of 26 percent from FY 2003. This is 6 percent of the total admissions. It is important to note that the number of admissions is greater than the number of people who sought treatment, since a person may have multiple

treatment admissions. Compared with admissions for other drugs, admissions for other opiates were more likely to be White, female, better educated, employed full-time, have private health insurance, and reside in suburban Baltimore (not Baltimore City) than admissions for other drugs. More than three-quarters (80 percent) of people who sought treatment for other opiates in FY 2004 also sought treatment for other drugs at least once between FY 2002 and FY 2004. A small but significant minority, however, showed no evidence of receiving treatment in Maryland for drugs other than other opiates during this time. People who sought treatment only for other opiate abuse were older at first use and at admission to treatment, better educated, more likely to be employed full-time, and more likely to have private health insurance than people who sought treatment for a combination of other opiates and street drugs (e.g., heroin, cocaine, marijuana, PCP).

CESAR staff believe that more research is needed to determine whether the people who only sought treatment for the abuse of other opiates developed their problems with these drugs after receiving legitimate prescriptions or after using illicit drugs. The full report is available on the CESAR Web site at <[www.cesar.umd.edu](http://www.cesar.umd.edu)>.

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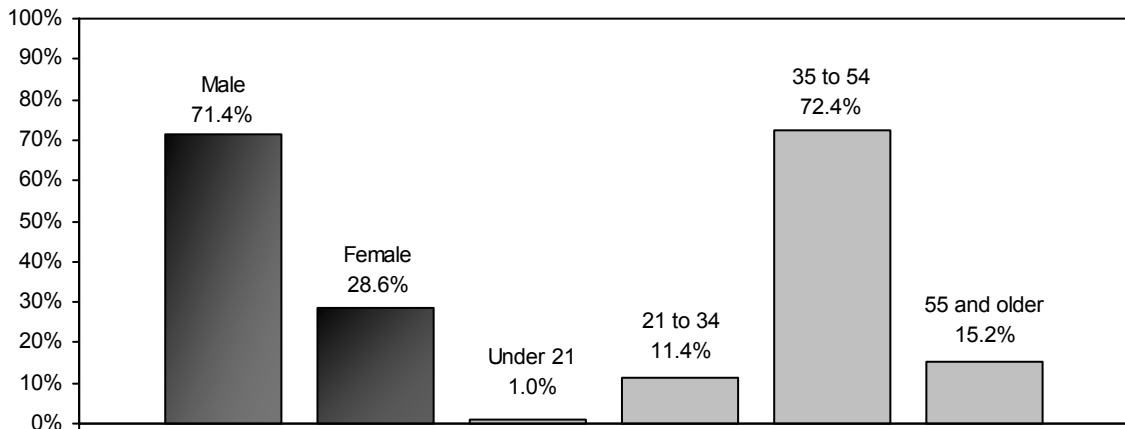
*For inquiries concerning this report, please contact Erin Artigiani, M.A., Deputy Director for Policy, Center for Substance Abuse Research, University of Maryland, 4321 Hartwick Road, Suite 501, College Park, MD 20740, Phone: 301-405-9770, Fax: 301-403-8342, E-mail: <erin@cesar.umd.edu>.*

**Exhibit 1. Number of Substantiated Substance Abuse Allegations and Children Affected: FY 2003–FY 2005**

Year	Number of Reports (Families)	Total Number of Children in Affected Families	Number of Children Exposed to Substance Abuse <sup>1</sup>
FY 2003 (10/1/02–9/30/03)	328	594	80
FY 2004 (10/1/03–9/30/04)	382	603	99
FY 2005 (10/1/04–9/30/05)	380	592	151

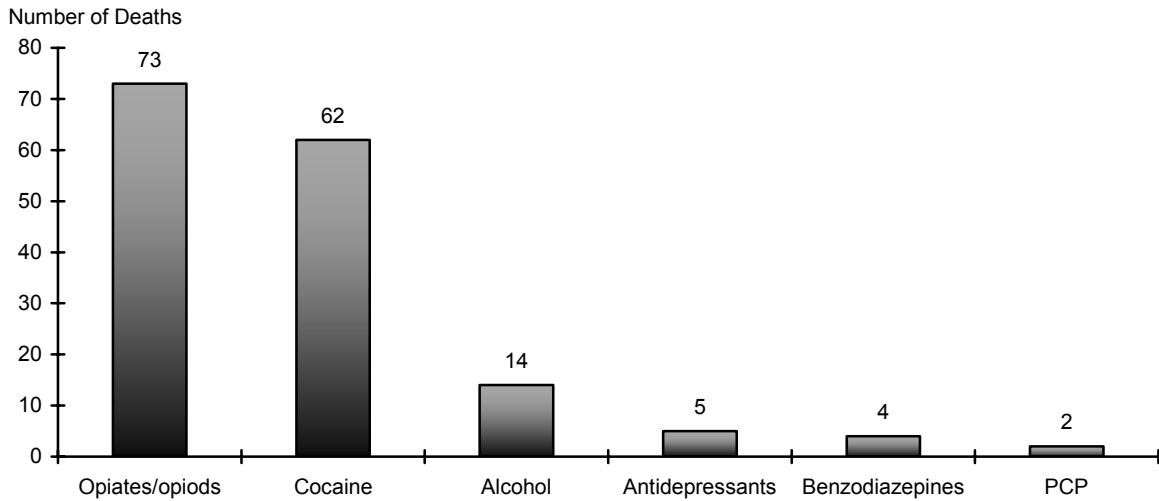
<sup>1</sup>A child is considered to have exposure to substance abuse if "Newborn w/ Positive Tox SW" or "Newborn w/ Addiction/Dependency SW" has been checked, or if "Newborn w/Positive Tox" or Newborn w/ Addiction or Dependency" is the maltreatment type.  
SOURCE: Child and Family Services Agency FACES Report

**Exhibit 2. Washington, DC, Drug-Related Deaths, by Gender, Age, and Percent: 2004<sup>1</sup>**



<sup>1</sup>N=107 deaths. (The two deaths of persons younger than 5 were excluded from this analysis).  
SOURCE: Office of the Chief Medical Examiner, Washington, DC 12/15/05

**Exhibit 3. Number of Drug-Related Deaths in Washington, DC, by Drug: 2004**



SOURCE: Adapted by CESAR from data from the Office of the Chief Medical Examiner, Washington, DC

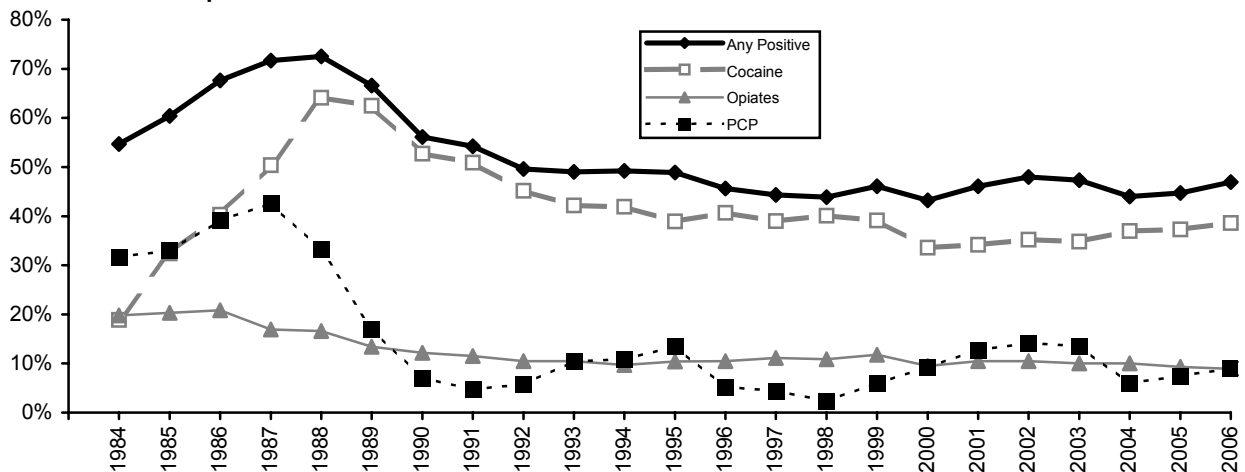
**Exhibit 4a. Percentages of Adult Arrestees in Washington, DC, Testing Positive for Selected Drugs: 2000–2006<sup>1</sup>**

Drug	2000	2001	2002	2003	2004	2005	2006
(N=)	(15,630)	(17,350)	(17,952)	(17,742)	(19,531)	(19,867)	(5,192)
Cocaine	33.6	34.2	35.2	34.8	36.6	37.3	38.6
PCP	9.3	12.7	14.2	13.5	6.2	7.5	9.0
Opiates	9.5	10.5	10.5	10.0	9.8	9.3	8.9
Any Drug	43.2	46.1	48.0	47.3	43.5	44.7	46.9

<sup>1</sup>2006 data are for January–March only.

SOURCE: District of Columbia Pretrial Services Agency

**Exhibit 4b. Percentages of Washington, DC, Adult Arrestees Testing Positive for Any Drug, Cocaine, PCP, and Opiates: 1984–2006<sup>1</sup>**



<sup>1</sup>2006 data are for January–March only.

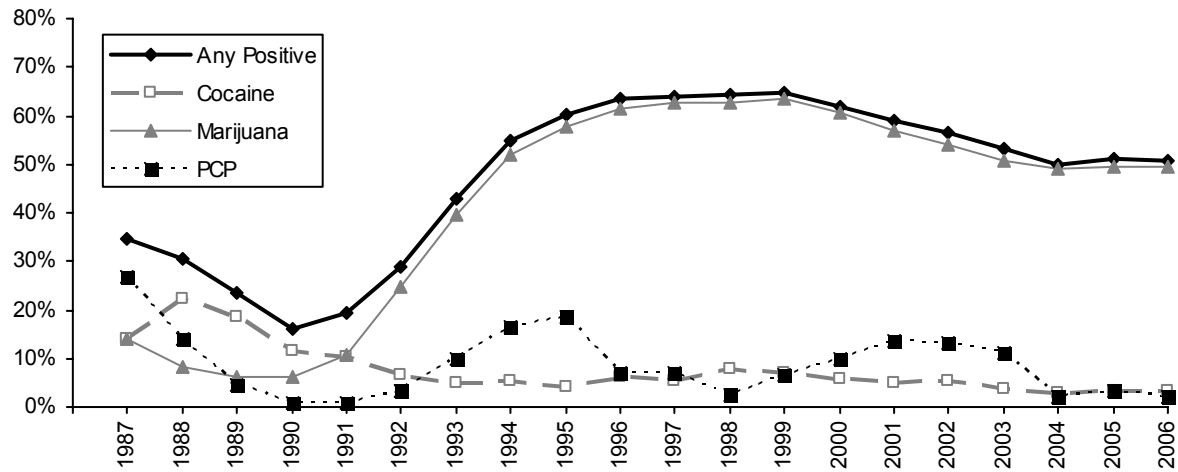
SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency

**Exhibit 5a. Percentages of Juvenile Arrestees in Washington, DC, Testing Positive for Selected Drugs: 2000—2006<sup>1</sup>**

Drug	2000	2001	2002	2003	2004	2005	2006
(N=)	(2,162)	(2,165)	(1,896)	(1,899)	(2,001)	(2,319)	(211)
Marijuana	60.7	56.9	54.2	50.8	49	49.8	49.3
Cocaine	5.7	4.8	5.5	3.7	3.3	3.5	3.3
PCP	9.8	13.5	13.4	11.1	1.9	3.4	2.0
Any Drug	62.0	59.1	56.4	53.1	49.6	51.0	50.7

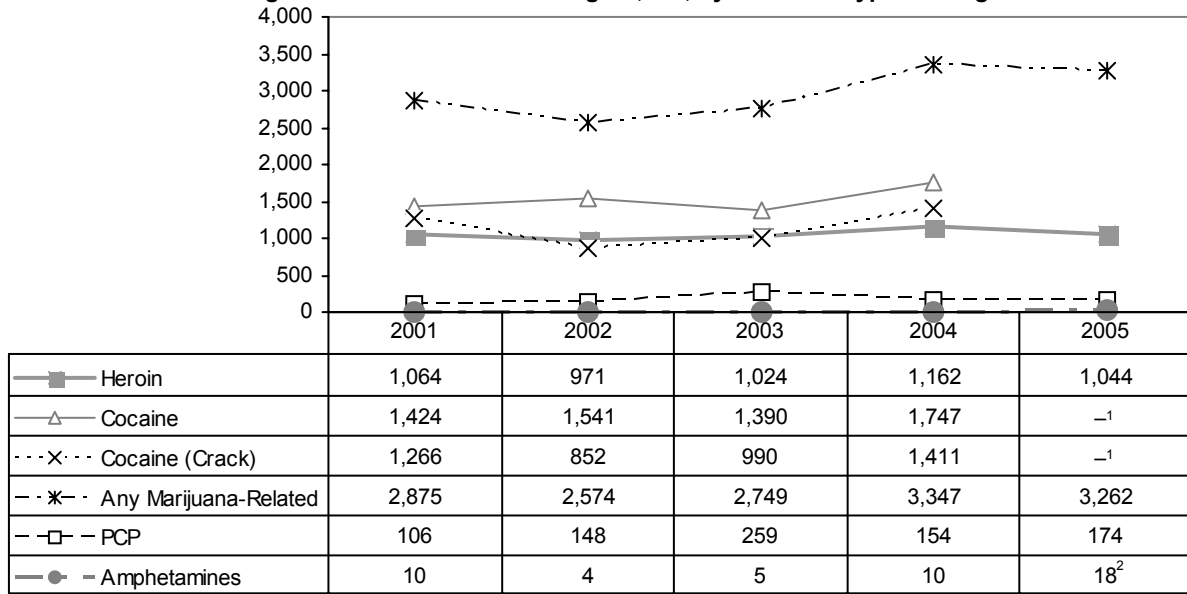
<sup>1</sup>2006 data are for January–March only.  
SOURCE: District of Columbia Pretrial Services Agency

**Exhibit 5b. Percentages of Washington, DC, Juvenile Arrestees Testing Positive for Any Drug,<sup>1</sup> Cocaine, PCP, and Marijuana: 1987–2005<sup>2</sup>**



<sup>1</sup>Any Positive includes opiates from 1987 through mid 1994 (< 1%).  
<sup>2</sup>2005 data are for January–October only; 2006 data are for January–March.  
SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency

**Exhibit 6. Number of Drug-Related Arrests in Washington, DC, by Year and Type of Drug: 2001–2005**



<sup>1</sup>In 2005, cocaine and crack were combined. The combined count is 3,433.

<sup>2</sup>In 2005, the amphetamines count also includes barbituates.

SOURCE: Adapted by CESAR from data from the Metropolitan Police Department 2005, June 2006

**Exhibit 7a. Lifetime Use of Tobacco and Other Drugs Among DC Public School Students in Grades 9–12, by Percent: 2003 and 2005**

Lifetime Use of Tobacco and Other Drugs	2003	2005
Cigarette Smoking	55.5	35.8
Marijuana	41.7	27.2
Any Form of Cocaine	6.2	2.1
Methamphetamine	5.7	2.0

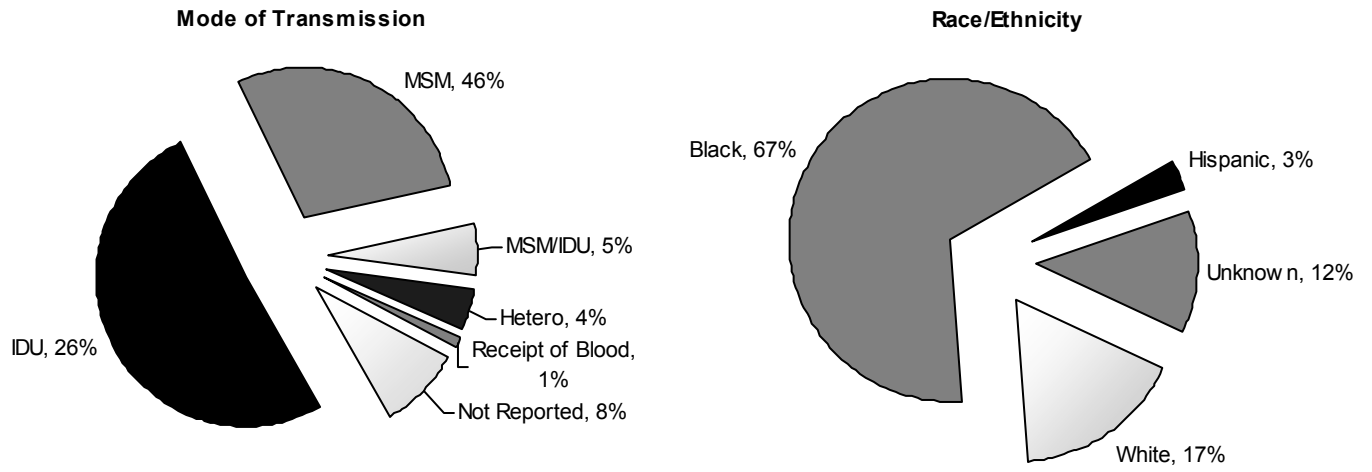
SOURCE: Adapted by CESAR from data from D.C. Public Schools 2005 YRBS

**Exhibit 7b. Past-30-Day Tobacco, Alcohol, and Other Drug Use Among DC Public School Students in Grades 9–12, by Percent: 2003 and 2005**

Past-30-Day Use of Tobacco, Alcohol, and Other Drugs	2003	2005
Cigarette Smoking	13.2	9.2
Alcohol Use	33.8	23.1
Marijuana Use	23.5	14.5
Binge Drinking	10.3	9.2
Offered, Sold, or Given an Illegal Drug on School Property	30.2	20.3

SOURCE: Adapted by CESAR from data from D.C. Public Schools 2005 YRBS

**Exhibit 8. District of Columbia Diagnosed AIDS Cases, by Race/Ethnicity, Mode of Transmission, and Percent: 1981–2004**



SOURCE: District of Columbia Department of Health, Division of Epidemiology, Administration for HIV/AIDS





SPECIAL  
PAPER:

CINCINNATI,  
OHIO



# Drug Abuse Patterns and Trends in Cincinnati, Ohio

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## ABSTRACT

*Drug abuse indicators showed that cocaine/crack cocaine and marijuana were the primary drugs of abuse in Cincinnati in 2005, with the drugs dominant among publicly funded treatment admissions, seizures from Cincinnati law enforcement, the Drug Enforcement Administration (DEA), and seized items analyzed by the National Forensic Laboratory Information System (NFLIS). Treatment admissions for cocaine/crack cocaine, excluding alcohol, accounted for more than 41 percent of total admissions during FY 2005. Cincinnati Police Department seizures of powder and crack cocaine increased 31–35 percent over seizures in 2001, and cocaine constituted 47 percent of NFLIS lab submissions in 2005. A twofold increase in Whites versus African-Americans admitted to treatment for primary crack cocaine use occurred between FYs 2001 and 2005. Indicators for marijuana remained relatively stable, with the drug accounting for 32 percent of treatment admissions for illicit drugs and 40 percent of NFLIS lab submissions in the Cincinnati area. Indicators for heroin use remained relatively constant; the drug accounted for nearly 13 percent of publicly funded treatment admissions for illicit drugs and nearly 18 percent of DEA drug seizures. Methamphetamine abuse remains an emerging issue across the State of Ohio, but the drug accounts for very few treatment admissions in the Cincinnati region to date. Prescription opioids remain a problem across the area, with White females more likely to abuse than African-Americans or males. Epidemiology indicators for MDMA indicated relative stability in availability and use across the Cincinnati region during 2005.*

## INTRODUCTION

### Area Description

The city of Cincinnati is 1 of 36 municipalities within Hamilton County, located in the southwest region of the State of Ohio along the Ohio River. Hamilton County is also home to 12 separate townships. Since

1990, the population in the city of Cincinnati has decreased. Census projections indicate that there were 317,361 residents of Cincinnati in 2003; 53 percent were White and nearly 43 percent were African-American. By comparison, the population of Hamilton County in 2003 was 823,472, with a distribution of nearly 73 percent White and 23 percent African-American.

The city of Cincinnati recorded 79 homicides during calendar year 2005, of which an estimated 75 percent were related to drugs; risky drug-dealing practices, territorial gang activity, and drug commerce throughout the city. Nearly 32 percent of the drug charges reported by the Cincinnati Police Department in 2005 involved arrest for trafficking or possession of illicit or pharmaceutical drugs. Of the 4,269 drug arrests, 59 percent were for drug possession, 37 percent were for drug trafficking, and nearly 5 percent involved pharmaceutical drugs. Most of the arrests involved males (88 percent) and African-Americans (81 percent); arrestees were most likely to be age 20–29.

The Ohio Services for Crime Opportunity Reduction (SCOR), under the University of Cincinnati Division of Criminal Justice, conducted a study of the crime problem in the city and its relationship to drugs. Data analysis revealed that open-air drug markets drove crime statistics in four of five hot spots identified as reporting areas during the period from September 2004 through July 2005.

Factors that have been identified by law enforcement as influencing substance abuse in the Cincinnati region and State of Ohio include the following:

- Ground travel was cited as the predominant source of drugs to the city of Cincinnati and the State of Ohio. Many major thoroughfares cut through the State, making transport relatively easy across the State line. Interstate-75 (I-75) is a direct route; it runs south to north, from the Florida border through four States, including Ohio, and terminates in Detroit, Michigan. Transport of cocaine through this route has earned I-75 the nickname of “cocaine lane.” I-80/90 travels east to west across the top of Ohio and contributes to drug travel from Chicago and New York areas into the State. Drugs coming through Mexico, by way of California and Texas, reach Ohio through routes such as I-71 or I-70, as well as others. Creative concealment of drugs within vehicles, and use of women, children, and the elderly as drug runners, serves to aid in avoiding detection by law enforcement.

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- Cincinnati resides within close proximity of the Northern Kentucky/Cincinnati International Airport to the south and the Dayton International airport to the north, with a few smaller airports scattered throughout the region. The region is also close to major package delivery centers where air transport of drugs in containers or packages contributes to the supply of imported drugs from Mexico, Texas, and California.
- Some drug travel through the ports of Lake Erie occurs as well, but this is a less common route of distribution than ground travel.

### Data Sources

The major sources of data/information for this paper are as follows:

- **Treatment data** were provided by the Hamilton County Alcohol and Drug Addiction Services Board for fiscal years (FYs) 2001 through 2005. Primary drugs of abuse among adult admissions are reported for selected drugs, excluding alcohol.
- **Poison control center call data** were accessed from the Cincinnati Drug and Poison Information Center (DPIC) and include call data from 38 of 88 counties in Ohio, 4 counties in Northern Kentucky, and 1 county in Indiana. The Cincinnati region captures data from Hamilton County and five surrounding counties in Ohio, four Northern Kentucky counties, and Dearborn County in Indiana. The DPIC provides a 24/7 telephone hotline for drug and poison information, as well as management and treatment information of hazardous or toxic exposures for the public, healthcare professionals, and government officials. The information obtained from DPIC includes exposures to illicit substances (e.g., heroin, cocaine, and methylenedioxymethamphetamine [MDMA]) as well as prescription drugs used for purposes of intentional abuse or suicide.
- **Crime laboratory drug analyses data** were derived from the Drug Enforcement Administration (DEA) and the National Forensic Laboratory Information System (NFLIS) for 2005.
- **Drug seizure and arrest data** were provided by the Cincinnati Police Department (CPD) for 2005.
- **Drug purity and cost data** are from the DEA Cincinnati Resident Office, the National Drug Intelligence Center (NDIC), Warren-Clinton County

Drug Task Force, and the Ohio Substance Abuse Monitoring Network (OSAM) for 2005.

- **Methamphetamine lab seizure data** were provided by the Ohio Bureau of Criminal Investigation and Identification (BCI&I).
- **Qualitative data** are based on interviews conducted during the reporting period of January 2005 to December 2005 with 38 recovering drug abusers, 27 active drug abusers, 16 Drug Abuse Community Educators, a case worker, and a Drug Task Force Officer.

Other information is from OSAM's report on *Surveillance of Drug Abuse Trends in Cincinnati, Ohio*, June 2004–January 2005, prepared by Jan Scaglione.

### DRUG ABUSE PATTERNS AND TRENDS

#### Cocaine/Crack

Cocaine, especially crack, is the most serious drug problem in Cincinnati. The treatment data for FY 2005 show that, as a proportion of all admissions, excluding alcohol, cocaine hydrochloride (HCl) accounted for 7.1 percent of the primary illicit drug admissions and crack accounted for 34.3 percent (83 percent of the primary cocaine admissions) (exhibit 1a).

Of the 1,024 primary crack treatment admissions in FY 2005, 59 percent were African-American (exhibit 1b). Whites were more dominant among the 211 primary HCl cocaine admissions; they accounted for 60 percent of this group. Fifty-one percent of the crack admissions were female, compared with 43 percent of the cocaine HCl admissions.

From 2001 to 2005, the proportion of crack admissions that were African-American decreased from 78 to 59 percent, while the proportion of White admissions increased from 21 to 40 percent (exhibit 1b). Qualitative data indicate that new crack users are more likely to be young (some as young as 14), female, and White. Interviewees reported that crack is attractive to the younger population because of its relatively low cost. It was also reported that over the prior 6 months, middle age and older (30–50), mostly White, individuals were emerging as a new group of crack users. While African-Americans continue to dominate the crack-user population, crack use among other ethnic groups is increasing.

Qualitative data indicate that the majority of crack users smoke the drug from a pipe. Reportedly, some break down the crack with vinegar or lemon juice and

inject it, but this was not cited as a common mode of administration.

Poison control center data showed that there was a total of 67 cocaine (salt/crack) exposure calls captured by the Cincinnati DPIC during 2005 that were classified as intentional abuse; 51 of these exposures (76 percent) were recorded for the Cincinnati region. In addition, there was a total of 26 exposure calls involving cocaine (salt/crack) as a substance used in intentional suicide; all were recorded from the Cincinnati region.

From 2001 to 2005, seizures for both powder and crack cocaine increased more than 30 percent (exhibit 2). In 2001, nearly 4,483 grams of crack were seized by the CPD; in 2005, the seizures increased to approximately 12,759 grams. Powder cocaine seizures followed a similar trend: 1,592 grams in 2001 and 5,096 grams in 2005.

Of the 14,432 drug items analyzed by NFLIS labs in the Cincinnati metropolitan area in 2005, 47.3 percent were positive for cocaine (exhibit 3). An analysis of the purity of cocaine samples seized by the local DEA in 2005 showed that the average purity of powder cocaine was 55.3 percent and the average purity of crack cocaine was 67.0 percent (exhibit 4).

During the last 6 months of 2005, the retail (street) price of powder cocaine was \$30–\$70 per gram and \$100–\$180 per 8-ball (exhibit 5), lower than the price in the first 6 months of 2005 (\$60–\$100 per gram). Prices varied depending on whether the drug was purchased in the city or in the surrounding suburbs, where gram prices were reported to be as high as \$100. Midlevel prices for powder cocaine ranged from \$500 to \$800 per ounce, and wholesale prices ranged from \$18,000 to \$22,000 per kilogram. The street price of crack cocaine reported during the last 6 months of 2005 was \$20–\$50 per gram and \$120–\$150 for an 8-ball, a slight decrease over the \$120–\$175 for an 8-ball in the first 6 months of 2005. Midlevel prices for crack cocaine ranged from \$650–\$800 per ounce.

### Heroin

Nearly 13 percent of the primary treatment admissions (excluding alcohol) in Cincinnati in FY 2005 were for heroin abuse (exhibit 1a). Of the 385 primary heroin admissions, the proportions who were White (81 percent) predominated over African-American (18 percent) or Hispanic (1 percent) admissions. Fifty-eight percent of the heroin admissions were male.

Qualitative data show that the primary route of heroin administration continues to be injection, but intranasal use and smoking remain common as well. A trend toward younger users continues, with individuals as young as 11–15 experimenting with heroin. Interviews with former and current drug users indicate there is an increase in the use of heroin among Whites.

Poison control center data showed that there was a total of 25 heroin exposure calls related to intentional abuse during 2005, with nearly all (88 percent) recorded from the Cincinnati region. In addition, there was a total of four intentional suicide exposures related to heroin as a substance used, with 25 percent of those originating in the Cincinnati metropolitan area.

Heroin accounted for 4.9 percent of the items analyzed by NFLIS in 2005 (exhibit 3). Analyses of samples by the DEA indicate that the heroin in Cincinnati was an average of 55.7 percent pure (exhibit 4). Heroin sold on the street (retail) for \$180–\$200 per gram and for \$20 per 0.1 gram in 2005 (exhibit 5). Midlevel prices for heroin ranged from \$2,000–\$2,600 per ounce for Mexican brown heroin to \$2,500–\$5,000 per ounce for Mexican black tar heroin. Wholesale prices for a kilogram of heroin ranged from \$40,000 to \$50,000. The Ohio SCOR study data and qualitative data from OSAM showed that the price of heroin in the city varies depending on the race/ethnicity of the buyer.

### Other Opiates/Opioids

Primary admissions for opiate/opioids other than heroin accounted for 10.1 percent of total admissions (excluding alcohol) in FY 2005 (exhibit 1a). Of the 301 treatment admissions, 55 percent were female, and all were White. Qualitative data indicate that new users of pharmaceutical narcotics are consistently more likely to be female, some as young as 13 or 14, while others are 30–50-year-old housewives.

Poison control center data showed that hydrocodone and oxycodone pharmaceutical products were more likely to be abused than other opiate/opioids available. There was a total of 41 exposure calls for intentional abuse of oxycodone products, including OxyContin<sup>®</sup>, with a subset of 14 (34 percent) originating in the Cincinnati area during 2005. In addition, there were 72 records of intentional suicide with oxycodone products, of which 31 (43 percent) were from the Cincinnati region. The number of hydrocodone/combination narcotic exposures in 2005 for intentional abuse totaled 42 for the entire catchment area and 28 (66.7 percent) for the Cincinnati area only. There was a total of 97 exposure cases of intentional suicide attempt with hydrocodone products in

2005, with 62 (64 percent) managed in the Cincinnati region.

Among the drugs analyzed by NFLIS in 2005, oxycodone accounted for 1.5 percent of the total items, hydrocodone represented 1.0 percent of all items, and other opiates/opioids accounted for 0.6 percent of all items (exhibit 3).

Qualitative data illustrate that OxyContin continues to lead other opioids in both desirability and availability with regard to diversion of pharmaceutical products to the street. In 2005, OxyContin sold on the streets of Cincinnati for \$30–\$60 for 80 milligrams, \$25–\$30 for 40 milligrams, and \$10–\$15 for 20 milligrams. Overall prices ranged from \$0.50 to \$0.75 per milligram of oxycodone, down from the previous year, when prices commanded \$1.00 per milligram of oxycodone. Both active and former drug users reported frequent travel from Kentucky borders to Cincinnati to take advantage of the lower prices for OxyContin. Generic versions of the branded extended release product were sold for similar price points. The hydrocodone products Vicodin, Lorcet, and Lortab were sold by drug content: \$1–\$3 for 5 milligrams, \$3–\$5 for 7.5 milligrams, and \$5–\$7 for 10 milligrams.

In the Cleveland area, a television report on January 26, 2006, issued a warning that heroin mixed with fentanyl was being distributed in the area, and that its use could be fatal. The report cited the case of a 19-year-old Summit County female who died after exposure to the mixture in March 2005. Ohio BCI&I crime lab analysis of drug samples in the spring of 2006 revealed the presence of fentanyl and heroin from the Mansfield and Dayton areas of the State. In addition, the DEA reported in their March 2006 bulletin *Microgram* (Vol. XXXIX, No. 3) the capture of fentanyl-tainted heroin in the Cleveland region. The two exhibits, analyzed by the DEA North Central Laboratory, revealed approximately 5 and 4 percent fentanyl, respectively, in the samples combined with heroin (8.1 and 2.9 percent, respectively) and other adulterants. The analyst described the levels of fentanyl as unusually high. The scope of this problem remains unknown in Ohio, since fentanyl may or may not be routinely tested for in medical examiner cases. Some deaths reported as heroin-related deaths may have involved a mixture of heroin and fentanyl, but this has not been supported with confirmatory toxicology tests.

### **Methamphetamine/Amphetamines**

Methamphetamine abuse indicators remain low in the Cincinnati area. Of the primary illicit drug admis-

sions in FY 2005, methamphetamine/amphetamines accounted for only 1.1 percent of the admissions (exhibit 1a).

Poison control data show a total of 16 intentional abuse exposures to methamphetamine in 2005, with 8 exposures (50 percent) recorded in the Cincinnati area. There were no intentional suicide exposures reported with methamphetamine in the Cincinnati region, and there was only one for the entire DPIC catchment area.

Methamphetamine items analyzed by NFLIS in 2005 totaled 218 and accounted for 1.5 percent of the total drug items reported. Fourteen amphetamine items were reported, representing only 0.1 percent of the total items. Methamphetamine sold on the street for \$80–\$100 per gram in 2005 (exhibit 5). Midlevel prices for methamphetamine range from \$1,000 to \$1,200 per ounce.

Throughout Ohio, the number of methamphetamine incidents involving laboratories, dumpsites, and chemical glass findings rose sharply from 36 in 2000 to 359 in 2005, followed by a decline to 185 in the first 6 months of 2006, according to the Ohio BCI&I. The decline noted in the first half of 2006 may be because of tighter restrictions on sales of precursor chemicals in the State, including pseudoephedrine. The primary method of manufacture in the Cincinnati region for small local labs continues to be the “Nazi” method that involves anhydrous ammonia. The majority of the clandestine labs have been found in rural and suburban areas, but several seizures indicate the labs are moving closer to inner city areas.

Qualitative data revealed that local methamphetamine manufacturers made use of “buying groups” to obtain precursor chemicals needed for methamphetamine production. Because of the tighter restrictions on multiple or volume purchases, cooks have many different people acquire small quantities of precursor chemicals from local retailers to avoid suspicion and attention. Individuals who participate would either receive cash or part of the finished product in return for their efforts.

### **Marijuana**

As in other parts of the Nation, marijuana is widely available and widely used in the Cincinnati area. Marijuana accounted for 32 percent of the treatment admissions, excluding alcohol, in FY 2005 (exhibit 1a). Of the 955 primary treatment admissions for marijuana in FY 2005, 61 percent were male, compared with 31 percent female. More African-Americans were admitted for treatment for primary

marijuana abuse (61 percent) than either Whites (38 percent) or Hispanics (1 percent).

Cannabis (marijuana) was the second most frequently reported drug by NFLIS, representing 40.4 percent of the total drug items analyzed in 2005. Low-grade marijuana sold on the streets for \$10–\$15 per gram in 2005, while the retail price of high-grade marijuana was \$30–\$60 per gram (exhibit 5). Midlevel prices for medium-grade marijuana ranged from \$120 to \$200 per ounce, and high-grade marijuana cost \$300–\$400 per ounce. Medium-grade marijuana ranged from \$900 to \$1,500 per pound at the wholesale level, and high-grade marijuana ranged from \$2,000 to \$5,000 per pound.

Poison control center data revealed a total of 37 intentional abuse exposures in 2005, with 15 (40.5 percent) marijuana-related cases reported from the Cincinnati region. There were a total of 14 intentional suicide exposures that included marijuana as a substance used, with 9 (64 percent) reported from the Cincinnati area.

**MDMA**

Abuse indicators for 3,4-methylenedioxymethamphetamine show low numbers for abuse in the Cincinnati region. Primary treatment admissions for stimulants, including MDMA, amphetamines, and methamphetamines in FY 2005 accounted for 1.1 percent of the total admissions, excluding alcohol.

Qualitative data show a decline in overall availability and use of MDMA during 2005, according to interviews with active and former drug users. Smaller numbers of regular users were cited as a reason for apparent MDMA regression. Regular users were more likely to be involved in the rave scene and to be age 18–25, with negligible gender or ethnic differences noted. Most users ingest the MDMA in tablet form, with a smaller number using inhalation of crushed tablets or powder MDMA as a primary route of administration.

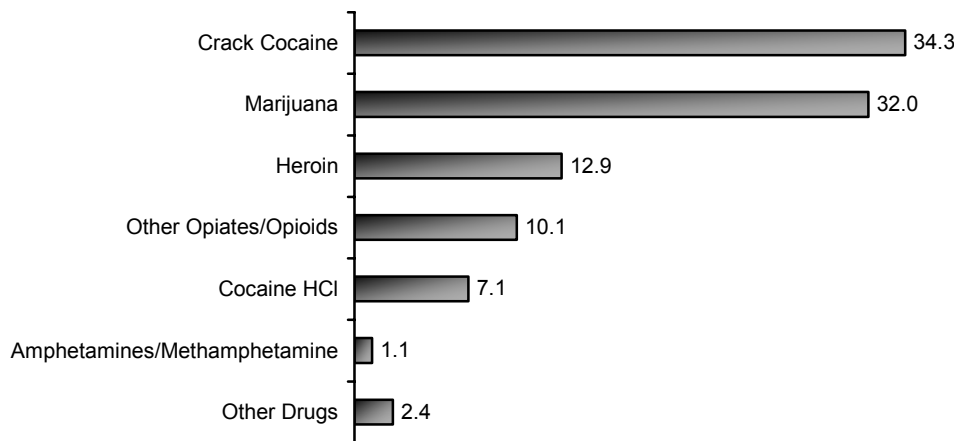
Poison control center data show a total of 16 intentional abuse exposures to MDMA for 2005, with 8 (50 percent) originating in the Cincinnati area. There were no cases of intentional suicide in which MDMA was cited as a substance involved during 2005.

Of the NFLIS items analyzed in 2005, there were 46 MDMA items and 4 MDA (methylenedioxyamphetamine) items. Together, these items accounted for 0.3 percent of all drug items reported.

MDMA sold for \$10–\$25 for a “single hit,” \$25–\$30 for a “double stack,” and \$20–\$40 for 0.2 grams (exhibit 5). A “double stack” is a tablet approximately twice the height, containing double the strength of MDMA per tablet versus a single stack or “hit.”

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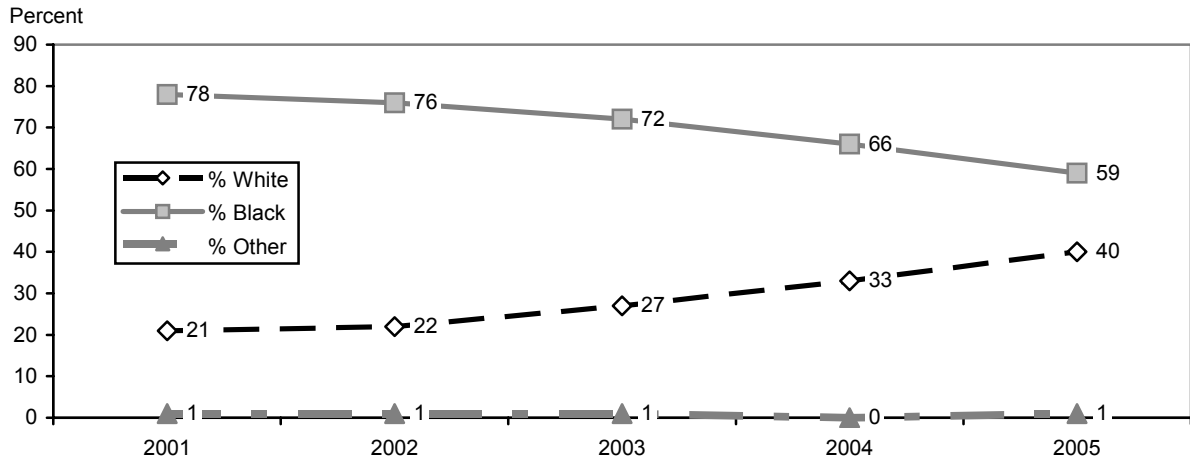
**Exhibit 1a. Treatment Admissions in Cincinnati by Primary Drug of Abuse, as a Percent of Total Admissions (Excluding Alcohol): FY 2005**



SOURCE: Hamilton County Alcohol and Drug Addiction Services Board

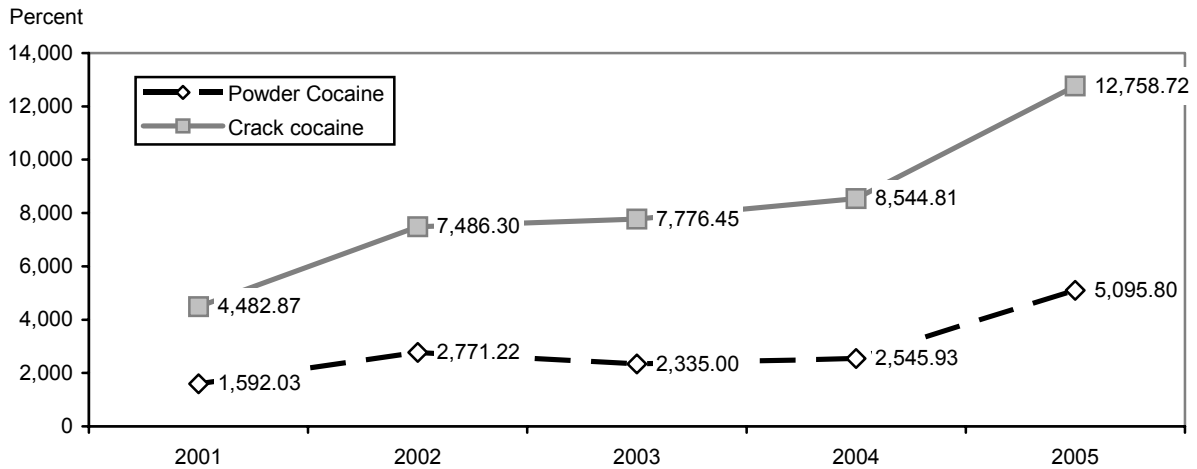


**Exhibit 1b. Trends in Crack Cocaine Treatment Admissions, by Race/Ethnicity and Percent: FY 2001–FY 2005**



SOURCE: Hamilton County Alcohol and Drug Addiction Services Board

**Exhibit 2. Seizures of Cocaine HCl and Crack, in Grams: 2001–2005**



SOURCE: Cincinnati Police Department

**Exhibit 3. Number and Percentage of Total Items<sup>1</sup> for Selected Drugs Analyzed by Forensic Laboratories in the Cincinnati Metropolitan Area: 2005**

Drug	Number	Percent of Total Items
Cocaine	6,824	47.3
Cannabis	5,827	40.4
Heroin	702	4.9
Oxycodone	221	1.5
Methamphetamine	218	1.5
Hydrocodone	146	1.0
Other Opiates/Opioids <sup>2</sup>	93	0.6
Benzodiazepines <sup>3</sup>	198	1.4
MDMA/MDA	50	0.3
Amphetamines	14	0.1

<sup>1</sup>Total items analyzed=14,432.

<sup>2</sup>Includes methadone (40), morphine (21), propoxyphene (20), codeine (11), and hydrocodone (1).

<sup>3</sup>Includes alprazolam (80), diazepam (65), clonazepam (40), and lorazepam (13).

SOURCE: NFLIS, DEA

**Exhibit 4. Purity Analysis of Drug Seizures: 2005**

Drug	Number of Items	Weight (Grams)	Purity Range (Percent)	Average Purity (Percent)
Powder Cocaine	12	3,025.3	23–90 <sup>1</sup>	55.3 <sup>1</sup>
Crack Cocaine	5	121.4	55–74	67.0
Heroin	6	3,685.8	28–78	55.7

<sup>1</sup>Based on 11 of 12 submitted samples.

SOURCE: DEA, Cincinnati Resident Office

**Exhibit 5. Prices for Selected Drugs, by Distribution Level and Quantity: 2005**

Drug	Wholesale	Midlevel	Retail
Powder Cocaine	\$18,000–\$22,000/kg	\$500–\$800/oz	\$30–\$70/g \$100–\$180/8-ball
Crack Cocaine	–	\$650–\$850/oz	\$20–\$50/g \$120–\$150/8-ball
Heroin	\$40,000–\$50,000/kg	\$2,000–\$2,600/oz (brown) \$2,500–\$5,000/oz (tar)	\$180–\$200/g \$20/0.1 g
Marijuana	Med. Grade: \$900–\$1,500/lb High Grade: \$2,000–\$5,000/lb	Med. Grade: \$120–\$200/oz High grade: \$300–\$400/oz	Low Grade: \$10–\$15/g High Grade: \$30–\$60/g
Methamphetamine	–	\$1,000–\$1,200/oz	\$80–\$100/g
MDMA	–	–	\$10–\$25/”single hit” \$25–\$30/”double stack” \$20–\$40/0.2g
Oxycontin <sup>®</sup>	–	–	80 mg: \$30–\$60 40 mg: \$25–\$30 20 mg: \$10–\$15

SOURCES: NDIC, DEA, Warren-Clinton County Drug Task Force, OSAM



INTERNATIONAL  
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MEXICO



# Update of the Epidemiologic Surveillance System of Addictions (SISVEA) in Mexico: 2005

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## ABSTRACT

*Initiated in 1990, the Epidemiologic Surveillance System of Addictions (SISVEA) currently collects and analyzes drug abuse indicator data from 31 States in Mexico. The data sources used for 2005 included patients in nongovernment treatment centers (NGCs), drug use among arrestees in Juvenile Detention Centers, and drug-related deaths reported by medical examiners. In 2005, 21.3 percent of the patients in NGCs reported crystal methamphetamine as their main current substance of abuse. This was lower than the proportion reporting alcohol (24.4 percent) as their current drug of abuse, but higher than the proportions reporting cocaine (18.7 percent), heroin (13.3 percent), marijuana (9.0 percent), and inhalants (7.1 percent) as their main current substance of abuse. The proportions of NGC patients reporting crystal methamphetamine as their current substance of abuse increased from 2002, when the proportion was 16.3 percent. The percentages of NGC patients reporting cocaine or heroin as their main current substances of abuse trended down from 2002 to 2005. In 2005, the substances most likely to be reported by NGC patients as their first substance of abuse were alcohol (35.1 percent) and marijuana (24.0 percent). Interestingly, 6.4 percent reported cocaine as their first substance of abuse. Of the 10,287 juveniles arrested in 2005, 32.0 percent had used marijuana, 13.2 percent had used cocaine, and only 0.04 percent had used heroin. Most of the 2,180 drug-related deaths associated with drug intoxication in Mexico in 2005 involved alcohol (79.5 percent), while only a small proportions involved cocaine (7.0 percent), marijuana (5.2 percent), or opioids (3.6 percent).*

## INTRODUCTION

The Epidemiological Surveillance System of Addictions (SISVEA) is defined as a permanent monitoring

system of the use and abuse of tobacco, alcohol, and medical or illegal drugs, as well as their effects on morbidity, mortality, and juvenile arrests. Created in 1990 by the General Directorate of Epidemiology, SISVEA initially operated in eight cities located at Mexico's northern border; since then, SISVEA updates drug consumption information from areas across the country. Currently, SISVEA provides information from 31 States of Mexico.

Initially, SISVEA was based conceptually and operationally on three strategies. These evolved and were reinforced to conform the present system, which focuses on four major indicators to give continuity to the original model, as shown below:

Consumption of tobacco, alcohol, and medical or illegal drugs	→	Treatment centers
Diseases and accidental mortality	→	Emergency rooms
Mortality in drug users	→	Coroner's office
Crimes against health	→	Law enforcement

## Data Sources

The present report discusses the updated activities of SISVEA during 2005. The sources of data to construct different indicators are described below:

- **Treatment data** cover the characteristics and substance use patterns related to the first drug of use and primary (current) drug of use. The data are obtained from the government and nongovernment treatment centers that participate in SISVEA.
- **Law enforcement data** were reported by the Juvenile Detention Centers for 2005. These data include drugs used, offenses committed, and demographic characteristics of juvenile arrestees.
- **Medical examiners' (ME) data** cover drug-related deaths, including accidental or violent deaths (homicides or suicides) in cases in which drug abuse may be the direct cause of death or a contributing factor.

## DRUG ABUSE PATTERNS AND TRENDS

**Marijuana**

According to the Centers for Juvenile Integration, or government treatment centers (GTCs), marijuana patients during 2005 were mostly male (91.0 percent); 27.7 percent were age 15–19; 44.7 percent had only a middle school education; 53.6 percent were single; and 57.4 percent came from a middle-low socioeconomic level (exhibit 1).

According to data gathered from nongovernment treatment centers (NGCs), marijuana patients were mostly male (95.3 percent); 26.2 percent were age 35 and older (exhibit 2). Forty-one percent had a middle school education, and 59.0 percent were single. The age of onset for marijuana use among these patients was between 10 and 14 (48.6 percent), and 81.4 percent reported daily use.

Marijuana ranked second as the drug of onset for 24.0 percent of NGC patients in 2005; as a primary drug, it was in fifth place (9.0 percent) (exhibit 3).

Data on the natural history of marijuana consumption reported by NGCs during 2005 show that 11.4 percent of patients used only marijuana at treatment entry, while the remaining 88.6 percent had progressed to a second drug, including cocaine (26.4 percent) and alcohol (17.7 percent) (exhibit 4). Of this group, 71.5 percent were already using a third drug, mainly cocaine (21.8 percent), crystal methamphetamine (18.7 percent), and heroin (16.1 percent).

Information from the Juvenile Detention Centers show that 32 percent of the 10,287 juveniles arrested during 2005 used marijuana (exhibit 5). Most of this population were male (94.6 percent); 28.4 percent had an elementary school education; and 39.2 percent were subemployed. More than one-third had a tattoo, and 28.1 percent were gang members. Nearly 30 percent of the offenses were committed under intoxication, and 44.8 percent of the offenses were robberies.

ME data indicated that 5.2 percent of deaths reported were associated with marijuana; this decedent group was primarily male (96.4 percent), and 22.1 percent were age 40 or older (exhibit 6). The main cause of death in these cases was asphyxia (24.3 percent), followed by intoxication, traffic accident, and fire arm (10.8 percent each). Thirty-nine percent of these deaths occurred on the street, and nearly one-third occurred at home.

**Inhalants**

Inhalant users attending GTCs were mostly male (84 percent) and age 15–19 (32.6 percent) in 2005 (exhibit 1). Most patients had a middle school education (55.8 percent); 67.4 percent were single; and 49.1 percent were from a middle-low socioeconomic level.

NGCs reported that of the 5,367 patients who used inhalants, most were male (93.1 percent); 34.9 percent were age 15–19; 57.5 percent had an elementary school education; and 72.5 percent were single (exhibit 2). More than one-half began to use inhalants between ages 10 and 14 (59.1 percent), and 86.1 percent reported daily use.

Inhalants ranked third (9.5 percent) as a drug of onset and sixth (7.1 percent) as a primary drug among clients in NGCs in 2005 (exhibit 3).

Data on the natural history of inhalant users show that 56.5 percent of the NGC patients used a second drug upon treatment entry; major ones were marijuana (50.2 percent), alcohol (16.8 percent), and other inhalants (7.1 percent). Of those using a secondary drug, 72.8 percent had also used a third drug, usually cocaine (23.0 percent), marijuana (20.1 percent), alcohol (13.6 percent), tranquilizers (10.1 percent), or heroin (7.6 percent) (exhibit 7).

According to the Juvenile Detention Centers, 12.3 percent of the young arrestees used inhalants (exhibit 5). Most were male (93.5 percent); 36.0 percent had an elementary school education; and 41.0 percent were subemployed. More than one-third (35.2 percent) had tattoos, and 36.3 percent belonged to a gang. Thirty-eight percent committed the offense while intoxicated, and robbery was the most common offense (46.0 percent).

**Alcohol**

According to GTCs, of the 23,680 patients attending treatment in 2005, 6,139 were abusing alcohol. Of these patients, 80.5 percent were male; 25.2 percent were age 15–19; 40.6 percent had a middle school level education; and 51.0 percent were single (exhibit 1). More than one-half of these patients (59.5 percent) were from a middle-low socioeconomic level.

NGCs reported that most of the 19,821 patients that abused alcohol in 2005 were male (91.8 percent) (exhibit 2). Forty-six percent were age 35 or older, and 33.7 percent had only an elementary school education. Forty-two percent were single; 45.4 percent started to use alcohol between ages 15 and 19; 46.7

percent reported daily use; and 38.5 percent used alcohol once a week.

Alcohol ranked first as the drug of onset (35.1 percent) and as a current drug (24.4 percent) at NGCs in 2005 (exhibit 3).

Natural history data on alcohol abuse provided by NGCs for 2005 show that 31.5 percent were monodrug users upon treatment entry, while the remaining 68.5 percent progressed to a second drug, typically marijuana (32 percent), cocaine (22.6 percent), and tobacco (14.7 percent). The 63.2 percent who progressed to a third drug usually used cocaine (29.1 percent), marijuana (17.7 percent), and crystal methamphetamine (12.2 percent) (exhibit 8).

Among juvenile arrestees, 13.9 percent reported alcohol abuse (exhibit 5). Most were male (92.1 percent), and 20.8 percent had an elementary school education. One-third were subemployed; 28.2 percent had tattoos; and 22.1 percent were gang members. Nearly 40.0 percent of the juveniles committed the offense while intoxicated, and robbery (45.3 percent) was the most common offense.

According to MEs, the abuse of alcohol was associated with 79.5 percent of the deaths reported. Most decedents were male (92.4 percent), and 39.3 percent were age 40 or older (exhibit 6). The main cause of death was traffic accident (19.4 percent), followed by asphyxia (19.1 percent). The most common places where these deaths occurred were on the street (35.7 percent) or at home (31.5 percent).

### Cocaine

GTCs report that cocaine patients in 2005 were mostly male (83.6 percent); 27.1 percent were age 15–19; 51.2 percent had a middle school education; 50.7 percent were single; and 20.5 percent were married (exhibit 1). More than one-half (60.8 percent) were members of a middle-low socioeconomic level.

Among cocaine users who attended NGCs in 2005, 91.5 percent were male; 25.6 percent were age 20–24; 40.0 percent had a middle school education; and 27.0 percent had an elementary school education (exhibit 2). One-half were single; 44.9 percent started to use cocaine between ages 15 and 19; 58.5 percent reported daily use; and 30.4 percent used it weekly.

Cocaine ranked fourth as the drug of onset (6.4 percent) for the NGC patients and third as current drug (18.7 percent) (exhibit 3).

The natural history of cocaine abuse reported by NGCs during 2005 shows that 31 percent were still monodrug users at treatment entry. Of the 69.0 percent who had progressed to a second drug, 26.9 percent used crystal methamphetamine, 23.5 percent used marijuana, 16.7 percent used alcohol, and 10.3 percent used crack. Of the multiple drug users, 45.4 percent used a third drug, usually crystal methamphetamine (22.8 percent), marijuana (18.4 percent), or alcohol (16.8 percent) (exhibit 9).

Juvenile Detention Centers reported cocaine use among 13.1 percent of younger arrestees in 2005 (exhibit 5). They were mostly male (93.1 percent); 31.4 percent had an elementary school education (31.4 percent); and 42.6 percent were subemployed. Nearly 40 percent had tattoos, and 30.9 percent were gang members. One-fourth of the juvenile arrestees (24.5 percent) committed the offense while under intoxication, and robbery was the most common offense (53.4 percent).

According to MEs, the abuse of cocaine was associated with 7 percent of the deaths reported in 2005. Most decedents were male (91.4 percent), and 21.7 percent were age 20–24 (exhibit 6). The main cause of death was asphyxia (23.0 percent), followed by fire arms (22.4 percent). The most common places where deaths occurred were at home (41.1 percent) or on the street (33.8 percent).

### Heroin

According to NGC data, heroin-abusing patients were mostly male (92.5 percent), and 46.8 percent were age 35 and older in 2005 (exhibit 2). Thirty-eight percent of these patients had only an elementary school education, and 54.5 percent were single. The age of first use of heroin among these patients was between 15 and 19 (40.3 percent), and 93.3 percent reported daily use.

Since 2000, heroin as drug of onset has been declining. It accounted for 1.4 percent of the drugs of onset among NGC patients in 2005 and placed fourth as the current drug of use (13.3 percent) (exhibit 3).

Information from the Juvenile Detention Centers shows that 0.48 percent of the juveniles arrested during 2005 used heroin (exhibit 5). Most of this population were male (86.0 percent); 22.4 percent had an elementary school education; and 28.0 percent were subemployed. More than one-third had tattoos, and 26 percent were gang members. Nearly 35 percent of the offenses were committed under intoxication, and robbery was the most common offense (44 percent).



### Crystal Methamphetamine

Crystal methamphetamine ranked second, after alcohol, as the current drug of abuse among NGC patients in 2005 (exhibit 3). In 2005, 21.3 percent of NGC patients reported crystal as their current drug of abuse, continuing a rise from 16.3 percent in 2002, to 17.2 percent in 2003, to 20.6 percent in 2004. Slightly more than 3 percent of NGC patients indicated that crystal methamphetamine was their first drug of use.

#### CONCLUSIONS

The SISVEA system needs to be strengthened and expanded to include to the rest of Mexico.

Alcohol remains the most common drug of onset, while frequency varies in different regions of the country. Alcohol is also the most common current drug of use, and it is detected most commonly by medical examiners.

The type of drug mentions has varied according to the different information sources. For example,

- Prior to 1998, marijuana was the drug most frequently used among NGC patients; beginning in 2000, alcohol became more dominant.
- Crystal methamphetamine, alcohol, heroin, and cocaine are similar in frequency of use among patients in treatment centers.
- Marijuana has prevailed in Juvenile Detention Centers as one of the most frequently consumed drugs among young arrestees.

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**Exhibit 1. Demographic Characteristics of Government Treatment Center Patients, by First Drug of Use and Percent: 2005**

Demographic Characteristic	Total N=23,680	Tobacco n=14,376	Alcohol n=6,139	Marijuana n=1,576	Cocaine <sup>1</sup> n=420	Inhalants n=898	Stimulants n=109	Hallucinogens n=14	Depressants n=112	Opiates n=12	Other n=20
Gender											
Male	79.7	78.1	80.5	91.0	83.6	84.0	67.9	78.6	47.3	66.7	45.0
Female	20.3	21.9	19.5	9.0	16.4	16.0	32.1	21.4	52.7	33.3	55.0
Age Group											
5–14	7.6	6.6	7.0	7.1	5.3	27.3	12.0	0.0	8.9	0.0	5.0
15–19	25.7	25.3	25.2	27.7	27.1	32.6	23.1	7.1	22.3	8.3	15.0
20–24	18.0	17.8	18.6	18.5	25.4	12.3	19.4	14.3	8.9	25.0	20.0
25–29	14.0	13.4	15.3	15.6	20.1	10.0	11.1	28.6	17.0	16.7	10.0
30–34	11.8	11.4	12.8	13.4	11.0	9.1	13.9	14.3	10.7	16.7	20.0
35 and older	22.9	25.5	20.9	17.6	11.0	8.8	20.4	35.7	32.1	33.3	30.0
Marital Status											
Single	50.6	49.1	51.0	53.6	50.7	67.4	43.1	50.0	50.0	41.7	45.0
Married	22.4	23.3	23.1	18.5	20.5	11.0	27.5	7.1	22.3	33.3	25.0
Living together	12.1	12.2	11.5	13.9	14.8	11.5	11.9	21.4	8.9	16.7	0.0
Separated	7.8	7.9	7.4	8.5	7.9	5.3	6.4	14.3	13.4	8.3	10.0
Divorced	2.3	2.7	2.1	1.3	1.2	0.7	5.5	0.0	2.7	0.0	5.0
Widowed	0.8	1.0	0.6	0.4	0.7	0.3	1.8	0.0	0.9	0.0	5.0
Other	4.0	3.9	4.2	3.8	4.3	3.8	3.7	7.1	1.8	0.0	10.0
Education											
No formal education	0.6	0.6	0.7	0.5	0.2	1.3	1.9	0.0	0.0	0.0	0.0
Elementary school	18.0	17.9	15.2	23.6	18.4	27.6	23.6	7.1	17.3	18.2	15.0
Middle school	42.1	41.4	40.6	44.7	51.2	55.8	47.2	50.0	37.3	27.3	15.0
Technical	4.6	4.9	4.5	3.3	2.9	2.4	4.7	0.0	11.8	0.0	5.0
High school	24.4	24.2	28.1	22.0	20.4	9.4	17.0	21.4	24.5	45.5	50.0
College studies	9.3	10.0	9.9	5.3	5.8	2.5	2.8	21.4	8.2	9.1	15.0
Socioeconomic Level											
High, middle-high	14.4	15.6	14.4	9.3	11.8	7.5	15.1	7.7	15.5	0.0	31.6
Middle-low	59.0	59.5	59.5	57.4	60.8	49.1	50.5	69.2	66.0	66.7	52.6
Middle	1.1	0.9	0.9	1.7	1.2	3.0	1.1	0.0	0.0	11.1	0.0
Low	25.5	24.0	25.2	31.6	26.2	40.4	33.3	23.1	18.5	22.2	15.8

<sup>1</sup>Includes cocaine, basuco, and crack.

SOURCE: SISVEA—government treatment centers

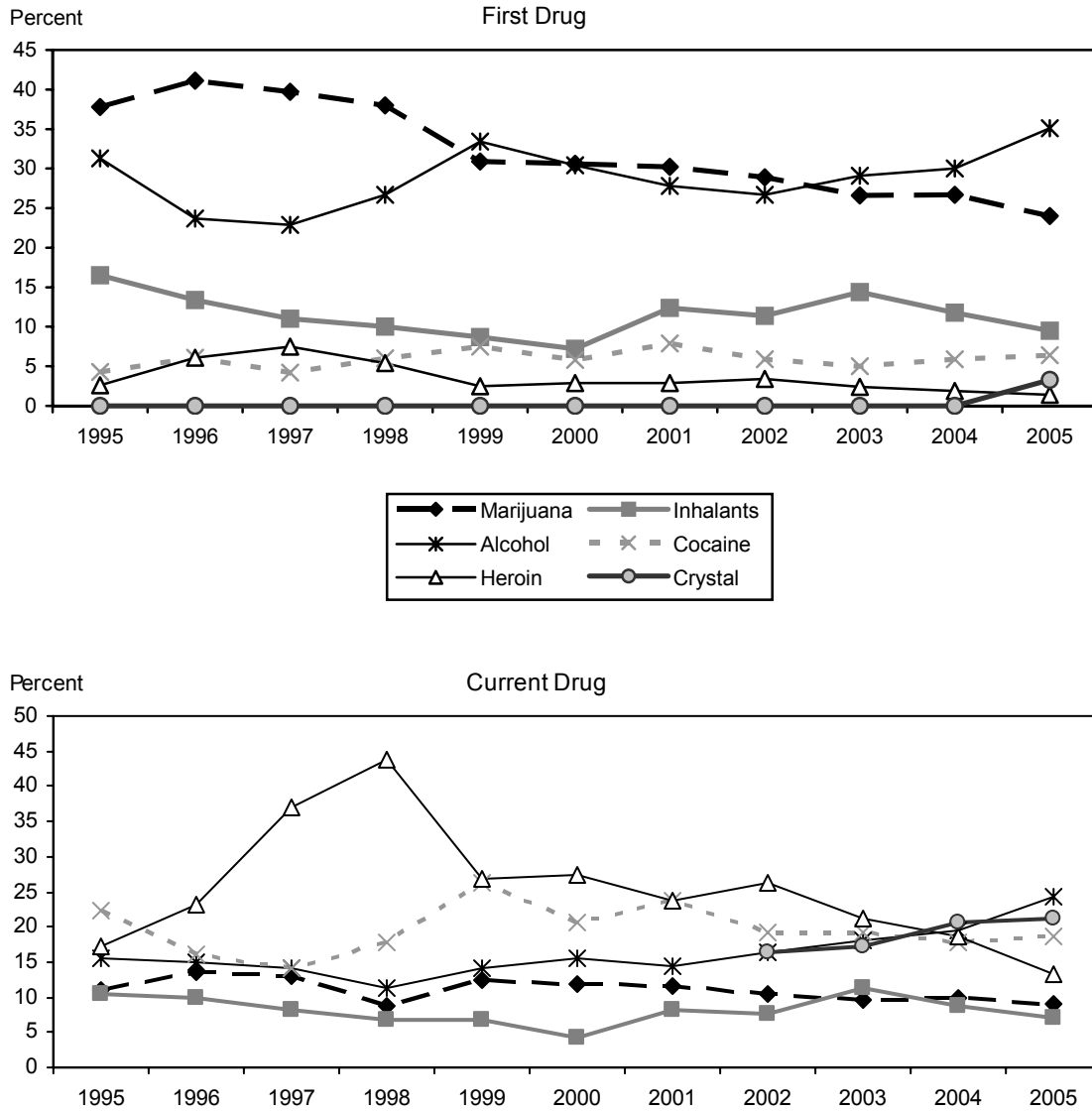
**Exhibit 2. Demographic Characteristics of Nongovernment Treatment Center Patients, by First Drug of Use and Percent: January–June 2005**

Demographic Characteristic	Total N=56,400	Marijuana n=13,541	Inhalants n=5,367	Alcohol n=19,821	Cocaine <sup>1</sup> n=3,583	Heroin n=776	Tobacco n=10,431
Gender							
Male	92.2	95.3	93.1	91.8	91.5	92.5	88.4
Female	7.8	4.7	6.9	8.2	8.5	7.5	11.6
Age Group							
5–14	1.7	1.3	5.7	0.9	1.1	0.1	1.7
15–19	15.2	17.1	34.9	9.1	15.8	4.0	14.6
20–24	18.3	21.0	21.5	13.7	25.6	12.4	19.9
25–29	17.4	19.2	16.1	15.2	22.7	17.8	18.1
30–34	14.9	15.1	9.9	15.6	16.5	18.9	15.0
35 and older	32.6	26.2	11.9	45.5	18.3	46.8	30.7
Education							
Elementary school	35.9	35.3	57.5	33.7	27.0	38.0	32.5
Middle school	36	41.2	29.2	31.4	40.0	35.9	40.0
High school	17.8	17.6	5.5	19.4	25.0	18.7	18.8
College studies	4.9	2.4	0.4	8.0	4.9	2.5	4.9
No formal education	5	3.2	7.2	6.8	2.7	4.8	3.5
Other	0.4	0.2	0.1	0.7	0.4	0.1	0.3
Marital Status							
Single	51.9	59.0	72.5	41.6	50.1	54.5	52.2
Married	24.3	18.1	10.7	32.3	29.1	20.4	22.9
Divorced	4.2	3.9	1.8	5.3	3.4	6.6	4.0
Widowed	1.1	0.6	0.4	1.8	0.6	0.5	0.9
Living together	11.4	12.3	9.6	10.4	11.3	12.1	13.1
Other	7.1	6.1	5.0	8.7	5.5	6.0	7.0
Age of Onset							
9 and younger	5.3	5.0	7.7	4.4	1.3	0.8	7.7
10–14	42.6	48.6	59.1	35.2	21.2	16.1	49.4
15–19	40.7	39.9	29.6	45.4	44.9	40.3	37.2
20–24	7.2	4.4	2.5	9.6	17.6	20.4	4.2
25–29	2.4	1.5	0.7	3.1	7.9	10.2	0.8
30–34	1	0.4	0.2	1.2	4.1	6.1	0.4
35 and older	0.8	0.2	0.2	1.0	3.0	6.1	0.3
Frequency							
Daily	69.5	81.4	86.1	46.7	58.5	93.3	91.0
Once per week	21.9	13.1	9.6	38.5	30.4	4.8	6.4
1–3 times per month	6.4	3.4	2.8	11.9	7	1.7	1.9
1–11 times per year	2.2	2.2	1.6	2.8	4.0	0.3	0.7

<sup>1</sup>Cocaine, basuco, crack.

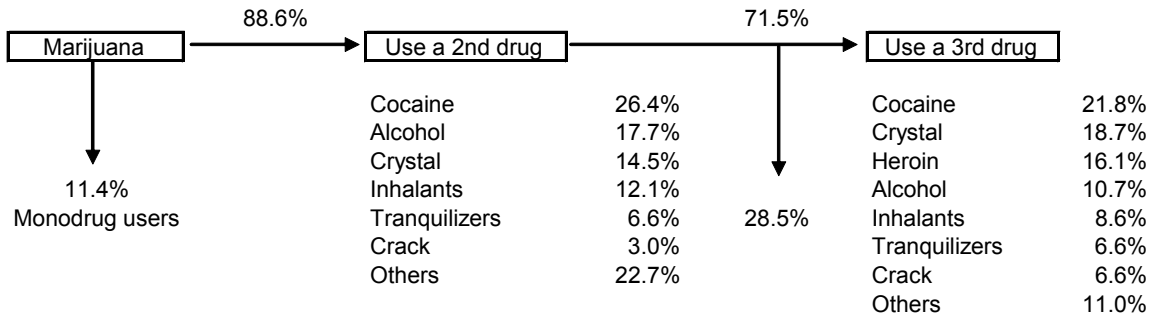
SOURCE: SISVEA—nongovernment treatment centers

**Exhibit 3. Comparison Between First Drug of Use and Current Drug of Use Among Patients at Mexico's Nongovernment Treatment Centers, by Percent: 1995–2005**



SOURCE: SISVEA—Nongovernment treatment centers

**Exhibit 4. Natural History of Marijuana Use Among Mexico’s Nongovernment Treatment Center Patients: 2005**



SOURCE: SISVEA—nongovernment treatment centers

**Exhibit 5. Social Characteristics and Type of Offense Committed by Juvenile Drug-Using Arrestees, by Percent: 2005**

Total N=10,287	Marijuana n=3,294	Inhalants n=1,262	Alcohol n=1,434	Cocaine n=1,354	Heroin n=50
Male 90.5	Male 94.6	Male 93.5	Male 92.1	Male 93.1	Male 86.0
Elementary school 24.7	Elementary school 28.4	Elementary school 36.0	Elementary school 20.8	Elementary school 31.4	Elementary school 22.4
Subemployed 30.2	Subemployed 39.2	Subemployed 41.0	Subemployed 33.0	Subemployed 42.6	Subemployed 28.0
Tattoo 20.4	Tattoo 34.4	Tattoo 35.2	Tattoo 28.2	Tattoo 37.5	Tattoo 34.0
Belong to a gang 17.4	Belong to a gang 28.1	Belong to a gang 36.3	Belong to a gang 22.1	Belong to a gang 30.9	Belong to a gang 26.0
Offense under intoxication 16.1	Offense under intoxication 29.7	Offense under intoxication 38.1	Offense under intoxication 38.5	Offense under intoxication 24.5	Offense under intoxication 34.7
<b>Frequent Offenses</b>					
Robbery 44.3	Robbery 44.8	Robbery 46.0	Robbery 45.3	Robbery 53.4	Robbery 44.0
Against health 12.7	Against health 26.0	Against health 19.2	Injuries 12.3	Against health 27.3	Against health 20.0
Damages 8.6	Drug 10.0	Drug 16.7	Against health 10.0	Drug 4.8	Damages 8.0
Injuries 9.6	Consumption 5.7	Consumption 5.4	Damages 7.5	Consumption 3.3	Drug 8.0
Other 24.8	Arms bearing 13.5	Other 12.7	Other 24.9	Arms bearing 11.2	Consumption 20.0

SOURCE: SISVEA—Juvenile detention centers

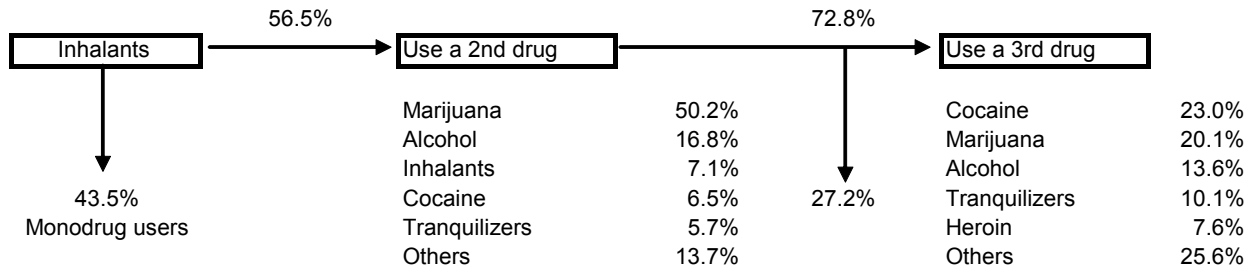
**Exhibit 6. Type of Death Under Intoxication of Drugs, by Drug and Percent: 2005**

Type of Death	Total N=2,180	Alcohol n=1,734	Tranquilizers n=183	Cocaine n=152	Marijuana n=113	Opioids <sup>1</sup> n=79
Gender						
Male	91.1	92.4	78.1	91.4	96.4	92.4
Female	8.9	7.6	21.9	8.6	3.6	7.6
Age Group						
10–14	0.6	0.5	1.1	0.7	0.0	0.0
15–19	7.8	7.6	8.2	7.9	11.5	6.3
20–24	13.4	13.4	7.7	21.7	15.0	11.4
25–29	14.0	14.1	10.9	19.1	20.4	12.7
30–34	13.9	13.5	9.3	19.1	15.0	29.1
35–39	11.8	11.5	10.4	13.8	15.9	17.7
40 and older	38.5	39.3	52.5	17.8	22.1	22.8
Cause of Death						
Run over	11.4	12.8	7.6	4.6	9.0	0.0
Traffic Accident	17.0	19.4	8.2	11.8	10.8	0.0
Fall	4.7	4.6	8.7	1.3	7.2	0.0
Electrocution	0.3	0.3	1.1	0.0	0.0	0.0
Burned	0.9	0.3	4.9	0.7	0.9	0.0
Beaten	3.1	3.5	1.1	2.0	6.3	0.0
Asphyxia	17.9	19.1	12.0	23.0	24.3	1.3
Crushed	0.2	0.3	0.0	0.0	0.0	0.0
Fire arm	9.4	9.3	4.9	22.4	10.8	3.8
Steel knife	5.6	6.6	1.1	5.3	1.8	1.3
Rape	0.1	0.0	0.0	0.0	0.0	0.0
Intoxicated	8.5	4.4	8.7	9.9	10.8	87.3
Poisoning	0.3	0.2	1.1	0.0	0.0	0.0
Other	20.5	19.2	40.8	19.1	18.0	6.3
Place of Death						
Traffic	17.9	19.9	12.2	9.3	8.8	0.0
Home	31.0	31.5	23.9	41.1	32.7	31.6
Street	34.0	35.7	13.9	33.8	39.0	45.6
Public baths	0.2	0.2	0.0	0.0	0.0	1.3
Recreational areas	2.2	3.4	0.6	0.7	2.7	0.0
At work	1.4	1.2	1.7	3.3	2.7	0.0
Service areas	7.8	4.3	38.9	7.3	6.2	16.5
School areas	0.1	0.0	0.0	0.0	0.0	1.3
Other	4.8	3.7	8.9	4.6	7.1	5.1

<sup>1</sup>Includes opium, morphine, and heroin.

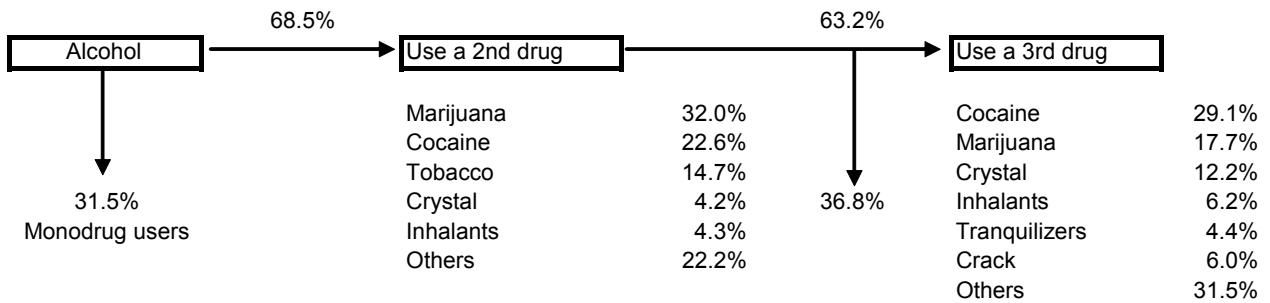
SOURCE: SISVEA

**Exhibit 7. Natural History of Inhalant Use Among Nongovernment Treatment Center Patients in Mexico: 2005**



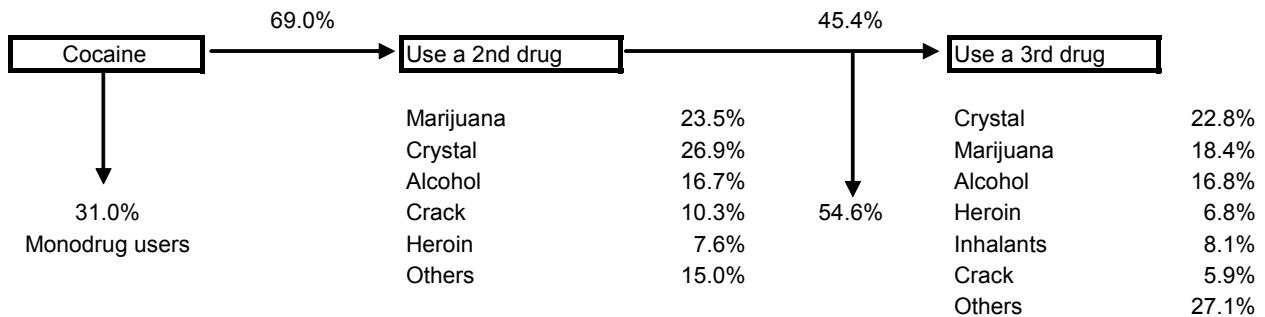
N=5,367  
SOURCE: SISVEA—nongovernment treatment centers

**Exhibit 8. Natural History of Alcohol Use Among Nongovernment Treatment Center Patients in Mexico: 2005**



N=19,821  
SOURCE: SISVEA—nongovernment treatment centers

**Exhibit 9. Natural History of Cocaine Use Among Nongovernment Treatment Center Patients in Mexico: 2005**



N=3,583  
SOURCE: SISVEA—nongovernment treatment centers

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