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# NATIONAL INSTITUTE ON DRUG ABUSE



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This publication, *Epidemiologic Trends in Drug Abuse, Volume II*, contains papers presented and data reported at the December 2003 CEWG meeting by CEWG representatives from 20 areas, and a researcher from Mexico. A paper was also submitted from a researcher from Canada. In addition, Volume II contains a number of special presentations, including a panel on emerging and current trends in PCP abuse; a panel on rural drug abuse; a series of reports on substance abuse patterns and trends in Georgia; an update on the Drug Abuse Warning Network and a presentation on emerging drugs in emergency departments from the perspective of a physician; and information and findings from drug-related studies conducted by the Centers for Disease Control and Prevention.

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For more information about the Community Epidemiology Work Group and other researched-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

## Foreword

This publication includes papers presented at the 55th semiannual meeting of the Community Epidemiology Work Group (CEWG) held in Atlanta, Georgia, on December 9–12, 2003, under the sponsorship of the National Institutes of Health, National Institute on Drug Abuse (NIDA). The CEWG is composed of researchers from 21 sentinel areas in the United States who have extensive knowledge and experience in community research and their local communities. They are also informed and have extensive knowledge about the drug literature, drugs of abuse, drug abusing populations, the social and health consequences of drug abuse, drug trafficking patterns, and emerging drug problems within and across communities.

As in prior semiannual CEWG meetings, the CEWG members presented reports, citing the most current data on drug abuse patterns, trends, and emerging problems in their areas. Based on issues identified at the June 2003 CEWG meeting, panels reported data/information on current and emerging trends in PCP abuse, as well as rural drug abuse patterns and trends.

The meeting also provided an opportunity for local (city and State) researchers and authorities to present data from different sources. The purpose of these presentations was to shed light on local drug abuse, patterns, trends, and emerging problems.

At this meeting, a researcher from Mexico reported the most recent data from Mexico's drug abuse surveillance systems. A researcher from Canada also submitted a paper on Canada's drug abuse surveillance system.

In addition, a representative of the Office of Applied Studies, Substance Abuse and Mental Health Services Administration, provided an update on the status of the Drug Abuse Warning Network (DAWN), and there was a presentation on emerging drugs from the perspective of an emergency department physician. Staff of the Centers for Disease Control and Prevention presented data from the Youth Risk Behavior Surveillance System, an AIDS surveillance system, and the Epidemic Intelligence Service.

Information reported at each CEWG meeting is disseminated quickly 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 the 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.

As part of the CEWG's monitoring role, members continue work between meetings, using the Internet, conference calls, and mailings to alert one another to new issues and to followup on issues and emerging drug patterns identified at meetings. The results of this interim monitoring are often an agenda item at a subsequent meeting.

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## Introduction

For decades, drug abuse and dependence have drained resources at local, State, and national levels and threatened the well-being of drug abusers and their significant others. The true prevalence of the problem has not been known and may never be known. The types of drugs used and the populations using a particular drug at a particular period in time constantly change, and drug abusers continue to be an elusive population that is not fully captured in prevalence studies. Yet, to best understand the problem, planners, policymakers, and practitioners need timely information on a regular basis so human, financial, and medical resources can be allocated appropriately.

Epidemiology work groups (EWGs) can provide needed, timely, and useful information to planners, policymakers, and interventionists at several levels—local, State, and national. EWGs rely on indicators extracted from multiple sources of information about drug abuse. The sources include household and school surveys. However, EWGs also rely on other sources to capture data on populations that may be “hidden” from traditional surveys. Analyses of administrative data sets are particularly useful to include those focused on drug arrests, drug mentions in morbidity and mortality, and substance abuse treatment admissions. EWGs also examine drug trafficking, seizure, and price and purity data to better understand drug abuse patterns at given points in time since availability, price, and purity of a particular drug affect its use in a community. Especially useful for understanding quantitative data are qualitative studies based on ethnographic interviews or focus groups with current or former abusers and key informant interviews with providers and other gatekeepers.

The success of the epidemiology work group approach has been well demonstrated. The National Institute on Drug Abuse (NIDA) has supported the Community Epidemiology Work Group (CEWG) since 1976 and currently brings together researchers from 21 areas

in the United States on a semiannual basis. A similar effort supported by NIDA and the Ministry of Health of Mexico involves the Border Epidemiology Work Group (BEWG), which focuses on drug abuse patterns and trends on both sides of the U.S.-Mexico border. Other nations and regions of the world have adopted a similar approach, including Australia, Canada, Europe, Southeast Asian, and Southern Africa, and have participated in CEWG meetings.

The following description of the CEWG demonstrates how this epidemiology work group has been at the forefront in identifying emerging drugs of abuse that spread from community to community. The description includes the roles and attributes of the current CEWG and identifies the 21 metropolitan areas that present and report on drug abuse patterns and trends in their areas.

### THE CEWG: ROLES AND ATTRIBUTES

#### Role of the CEWG

At semiannual meetings, and through ongoing communication via e-mail, conference calls, and mailings of relevant data, the CEWG serves as a unique epidemiologic surveillance network to inform drug abuse prevention and treatment agencies, public health officials, policymakers, researchers, and the general public about current and emerging drug abuse patterns. The information is disseminated quickly to alert authorities at the local, State, regional, and national levels to current and emerging drug problems so that appropriate action can be taken. Researchers use the information to develop research hypotheses that might explain social, behavioral, and biological issues related to drug abuse.

The 21 areas currently represented by the CEWG are depicted in the map below.



### The Functions of the CEWG Meetings

The interactive semiannual meetings are a major and distinguishing feature of the CEWG. The meetings provide a foundation for continuity in the monitoring and surveillance of current and emerging drug problems and related health consequences. Through the interactive sessions, 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 patterns

Presentations by each CEWG member include a compilation of quantitative drug abuse indicator data. Members go beyond publicly accessible data and provide a unique local perspective gained from both public records and qualitative research. This information is typically obtained from local substance abuse treatment providers and administrators, personnel of other health-related agencies, law enforcement officials, and drug abusers. Time at each meeting is devoted to presentations by invited speakers.

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- Planning for followup on identified problems and emerging drug abuse patterns

Identification of changing drug abuse patterns is part of the interactive discussions at each CEWG meeting. Through this process, members alert one another to the emergence of a potentially new drug of abuse that may spread from one area to another. In this role, the CEWG has pioneered in identifying the emergence of drug epidemics and patterns of abuse, such as those involving abuse of methaqualone (1979–1982), crack (1983–1986), methamphetamine (1987–1989), and “blunts” (1993–1995). MDMA abuse indicators were first reported by CEWG members in December 1985.

Planning for followup on issues and problems identified at a meeting is initiated during discussion sessions, with post-meeting planning continuing through e-mails and conference calls. Post-meeting communications assist in formulating agenda items for a subsequent meeting, and, also, raise new issues for exploration at the following meeting.

**Attributes of the CEWG**

CEWG members bring the following attributes to the network:

- Extensive experience in community research, which over many years has fostered information sharing between members and local agencies
- Knowledge about their local communities, drugs, and drug-abusing populations; the social and health consequences of drug abuse; drug trafficking and other law enforcement patterns; and emerging drugs within and across communities

- Ongoing collaborative relationships with one another and other researchers and experts in the field, which allows for both learning about new issues and sharing information
- The capability to access relevant drug-related data from the literature, media, and Federal, State, community, and neighborhood sources
- An understanding of the strengths and limitations of each data source
- The skills required to systematically analyze and synthesize multiple sources of information, and interpret findings within the community context

Major indicators and primary quantitative data sources used by CEWG members and cited in this report include those described in this publication.



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Epidemiology of Drug Abuse:  
Area Papers

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# Metropolitan Atlanta Drug Use Trends

Kristin J. Wilson, M.A.,<sup>1</sup> Johanna H. Boers, B.A.,<sup>2</sup> Claire E. Sterk, Ph.D.,<sup>2</sup>  
and Kirk W. Elifson, Ph.D.<sup>1</sup>

## ABSTRACT

*Cocaine and marijuana remained the most commonly used illicit drugs in metropolitan Atlanta according to all epidemiological indicators. Heroin ED indicators remained lower than the national rates, but continued a slight increase. ED mentions increased slightly for other opiates/narcotics, although treatment data indicated stability. Treatment data showed that methamphetamine use is on the rise statewide, but is increasing most significantly in counties outside metropolitan Atlanta. Methamphetamine treatment admissions outside of the metropolitan area rose from about 1,000 in FY 2002 to more than 2,000 in FY 2003. Law enforcement agencies continued to close clandestine methamphetamine labs in rural Georgia. ED mentions of benzodiazepines were up slightly, but these depressants still accounted for a low overall percentage of drugs abused in Atlanta. NFLIS data indicated that alprazolam (Xanax) was the most common depressant in rural and metropolitan areas of Georgia. Ecstasy use is becoming more popular in the hip-hop scene, and young adults mention 'candy flipping,' or combining MDMA and LSD, according to ethnographic sources. No updated statistics were available for HIV/AIDS and other infectious diseases such as hepatitis B and C.*

## INTRODUCTION

### Area Description

The metropolitan Atlanta area is situated in the northwest corner of Georgia and comprises 20 of the State's 159 counties. At just over 6,100 square miles, the metropolitan area accounts for 10.5 percent of Georgia's total size, but with an estimated 4.3 million residents, it includes just over one-half of the State's total population (Bureau of the Census 2002). Within the metropolitan area is Atlanta, with a population in 2002 of about 382,831. The city is situated in parts of Fulton County (primarily) and DeKalb County, which include 18.4 and 15.4 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 majority population within the city (58 percent), followed by Whites (31 percent), Hispanics (6 percent), and Asians (2 percent). When considering the overall metropolitan Atlanta area, those numbers reverse. Whites account for the majority (58 percent), followed by African-Americans (29 percent), Hispanics (8 percent), and Asians (4 percent). Per capita family income in 2002 for the city of Atlanta was higher at \$31,324 than in the metropolitan area, at \$26,262. The poverty rate inside the city is 25.9 percent, compared with only 9.5 percent in the metropolitan area. The housing vacancy rate outside the city is much lower (14.9 percent) than in the city (21.3 percent).

In fiscal year (FY) 2002, the Georgia Bureau of Investigation (GBI) participated in 14 drug-related multijurisdictional task forces throughout Georgia. As a result of task force efforts, 4,040 investigations were initiated and 2,618 drug offenders were arrested. As of May 2003, there were six drug courts that had been operating for more than 2 years in Georgia (one in Atlanta), seven that were recently implemented, and five that were in the planning stages. In 2001, 34 percent of those on probation in Georgia, 17 percent of prisoners, and 35 percent of parolees had been convicted of a drug-related offense. The U.S. Department of Justice reported that drug-related offenses accounted for 39.5 percent of 2001 Federal sentences in Georgia; 92 percent of those were for trafficking. A majority of Federal drug sentences (55 percent) also involved cocaine (33 percent involved crack cocaine and 22 percent involved powder cocaine).

### Data Sources

Principal data sources for this report include the following:

- **Emergency department (ED) drug mentions data** are from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Data are presented on estimates of drug mentions among individuals admitted to participating metropolitan Atlanta emergency departments between January 1995 and December 2002.

<sup>1</sup> These authors are affiliated with Georgia State University, Atlanta Georgia.

<sup>2</sup> These authors are affiliated with Emory University, Atlanta Georgia.

- **Drug abuse treatment program data** are from the Georgia Department of Human Resources for primary drugs of abuse among clients admitted to Atlanta's public drug treatment programs between January 2002 and June 2003. Data for non-metropolitan Atlanta counties of Georgia were also reported. Provisional treatment data from FY 2003 for metropolitan Atlanta and the rest of Georgia are also reported.
- **Arrestee urinalysis data** are from the National Institute of Justice (NIJ), Arrestee Drug Abuse Monitoring (ADAM) program, and represent estimated drug use among recent adult male arrestees in the local Atlanta pretrial detention center, as well as local prisons and jails. Data are available for 2002 and the first two quarters of 2003. The 2003 data have been summed across the two quarters, and average percentages were estimated.
- **Drug price, purity, and trafficking data** are from the Drug Enforcement Administration (DEA) and the National Drug Intelligence Center (NDIC). Information for 2002 on the price, purity, and source of several drugs was provided by the DEA's Domestic Monitoring Program (DMP). Additional information came from *Narcotics Digest Weekly* (July 15, 2003) published by 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 throughout Georgia that were tested by the GBI Forensic Laboratory from October 2002 through September 2003.
- **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 Georgia Department of Human Resources and represent AIDS cases in Georgia and a 20-county Atlanta metropolitan area from January 1981 through August 2003. Additional information was provided by the Centers for Disease Control and Prevention (CDC).

## DRUG ABUSE PATTERNS AND TRENDS

**Cocaine/Crack**

According to data collected by DAWN, Atlanta ED mentions for cocaine increased by 8 percent (from 6,229 to 8,947) between 2000 and 2002. The rate of cocaine mentions per 100,000 population was 239 in 2002 (exhibit 1). More specifically, the rate for crack mentions was 110 per 100,000 population in 2002. Cocaine ED mentions were higher among men than women, with a ratio of 2.4:1. From 2000 to 2002, there was a significant increase (13.5 percent) in rates of ED mentions among male patients. Even though no significant increase in the rate of ED cocaine mentions among females was reported for 2000–2002, data show an increase of 12.4 percent from 124 in 1995 to 139 in 2002. There were 1,346 ED mentions among White patients, 6,438 by African-Americans, 48 by Hispanics, and 1,105 by persons of unknown race/ethnicity in 2002; all were stable from 2001. In 2002, the rate of cocaine ED mentions for Whites was lower in Atlanta than in the coterminous United States. For African-Americans, the Atlanta rate was higher than the national rate. Between 2000 and 2002, ED mentions rose 44.7 percent among 18–25-year-olds, for a total of 851 mentions. Within that age category, mentions increased by 47 percent among 20–25-year-olds. ED mentions among patients age 35 and older totaled 5,987 in 2002, an increase of 49 percent over 2000. Between 2000 and 2002, mentions for patients age 45–54 rose 65.1 percent, compared with an increase of 36.9 percent nationally.

Primary admissions in metropolitan Atlanta for cocaine at publicly funded treatment centers in FY 2003 were stable and accounted for approximately 43 percent of all admissions (exhibit 2). Non-metropolitan Atlanta cocaine admissions, however, increased by 24.3 percent in FY 2003. In FY 2003, those older than 35 accounted for the largest number of cocaine admissions ( $n=9,341$ ) statewide. In Atlanta in FY 2003, there was an 11.9-percent increase in admissions among those age 26–34 compared with FY 2002. Compared with FY 2002, fewer Atlanta cocaine admissions had used the drug orally in FY 2003, and there was a 20.1-percent increase in injection as a preferred route of cocaine administration. Smoking continued to be the most preferred route; it was reported by nearly 70 percent of those admitted for cocaine treatment.

According to the ADAM data for Fulton and DeKalb Counties, an average of 48.5 percent of adult male arrestees tested positive for cocaine in the first two



quarters of 2003 (exhibit 3). Nearly 60 percent of the arrestees age 36 and older tested cocaine-positive in the second quarter of 2003, as did 55 percent of those age 31–35. These age trends remained relatively stable since the third quarter of 2002. In the second quarter of 2003, 72 percent of Hispanic arrestees tested cocaine-positive, as did nearly 58 percent of African-American and 23 percent of White arrestees. The proportion of Hispanics testing cocaine-positive in the second quarter of 2003 was dramatically higher than the 30.8 percent who tested positive in 2002.

According to the DEA and Atlanta HIDTA, 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, prices remain relatively stable in Atlanta. Powder cocaine and crack typically sell for \$100 per gram. From February 2003 to June 2003, members of the Atlanta HIDTA Task Force seized 3.5 kilograms of powder cocaine and 2.25 kilograms of crack cocaine.

According to the 2003 Georgia Threat Assessment report, crack was the second most widely available drug in the city in 2003 (behind marijuana), and officials estimated that 75 percent of all drug-related arrests involved crack cocaine. Powder cocaine availability at the retail level in Georgia was limited, except in large cities such as Atlanta. Recent seizures of powder cocaine included 50 kilograms found in two homes in the Atlanta suburb of Tucker, Georgia (*Atlanta Journal and Constitution*, September 9, 2003), and 210 pounds of cocaine found in a watermelon truck in Homer County (*Atlanta Journal and Constitution*, August 16, 2003). Data from NFLIS show that most seized drugs tested were cocaine, especially those from metropolitan areas.

In the metropolitan Atlanta suburbs of Gwinnett and Cobb Counties, a raid resulted in 23 arrests of a major drug cartel in which \$2 million and 500 pounds of drugs (including cocaine, methamphetamine, and marijuana) were discovered (*Atlanta Journal and Constitution*, August 29, 2003).

### Heroin

ED mentions of heroin in Atlanta totaled 732 in 2002, up nearly 51 percent from 2000 but down 116 men-

tions from 2001. The rate of heroin mentions per 100,000 population was 20 in 2002, compared with 17 in 2000 (exhibit 1). Similar to previous years, a sizable majority of the heroin ED mentions in 2002 (71 percent) were for patients who were male, with a 3.4:1 male-to-female ratio. More ED mentions were among African-Americans than Whites, at a ratio of 1.8:1. As in 2001, there were only 13 Hispanics represented in the heroin ED mentions. From 2001 to 2002, heroin mentions were up significantly by nearly 35 percent among patients age 20–25. Despite a dip from 2001 to 2002 for mentions by 26–34-year-olds, the mentions for this group in 2002 still exceeded those in 2000 (189 vs. 109, respectively). Heroin ED mentions in 2002 were down significantly from 2001 by more than 20 percent among patients age 35–54; this decline was especially dramatic for younger members (35–44-year-olds) in this category, with about 32 percent fewer ED heroin mentions.

Nearly two-thirds of the heroin mentions in 2002 were part of multidrug episodes, and the reasons for contact with the EDs tended to be overdose or seeking detoxification. Of the 732 heroin mentions in 2002, 273 were among patients admitted to the hospital, similar to the high level for 2001.

Treatment admissions for heroin abuse accounted for nearly 8 percent of total metropolitan Atlanta admissions in FY 2002, but that proportion declined to only 6 percent in FY 2003 (exhibit 2). Admissions for men were double those of women. In FY 2002, there were a few more African-American than White heroin treatment admissions in Atlanta. By the first half of 2003, in contrast, Whites outnumbered African-Americans (114 vs. 76). The proportion of Hispanics admitted for heroin treatment in metropolitan Atlanta remained small, although there was a spike in the second half of 2002. By the first half of 2003, Hispanics accounted for only 5 of the total 196 admissions. A significant majority of heroin treatment admissions were age 35 and older, as in previous reporting periods.

In FY 2002, about two-thirds of heroin users admitted to publicly funded treatment programs in metropolitan Atlanta had injected the drug, compared with more than 60 percent in FY 2003. Inhalation was the second most popular route among primary heroin admissions, characterizing more than one-fifth of this group. Most heroin users did not have a secondary drug of choice. Thirty-three percent of heroin users admitted in FY 2002 chose cocaine as a secondary drug, continuing a trend evident in the past several years. Consistent with this pattern, about 38 percent of heroin users admitted for treatment in the second half of FY 2003

chose cocaine as a secondary drug. Tertiary drugs of choice tended to be alcohol or cocaine, though less than 6 percent reported any tertiary drug.

Heroin admissions accounted for only about 2.0 percent of total treatment admissions outside the metropolitan Atlanta area in FY 2002, and only 1.6 percent of admissions were for heroin in FY 2003. Demographically, heroin treatment admissions were also different outside of Atlanta. The racial breakdown was much more heavily skewed toward White than African-American users. Whites constituted more than 82 percent of the total in FY 2002; this proportion increased to nearly 88 percent in the second half of FY 2003. As in metropolitan Atlanta, only a handful of Hispanics were admitted into treatment for heroin use, and most heroin users preferred injection, followed by smoking.

According to ADAM data, 3.6 percent of male arrestees in the first two quarters of 2003 tested positive for opiates, similar to the 3.2 percent in 2002 (exhibit 3). In the second quarter of 2003, self-reports of drug use showed 2.7 percent of the arrestees reported heroin use in the prior 12 months, averaging 74 days of use. As in recent years, heroin users were much more likely than other arrestees to report having ever been in treatment (75.1 percent). Compared to other arrestees, heroin users were more likely to report ever being in inpatient treatment (62.3 percent). In the second quarter of 2003, 3.1 percent of African-American arrestees and 2.7 percent of White arrestees tested opiate-positive. The proportions for 2002 were 3.1 and 4.3 percent, respectively.

Most arrestees testing positive for heroin in the first two quarters of 2003 were older than 30, but the proportion of 26–30-year-olds increased in the second quarter of 2003 to approximately 5 percent of all positive arrestees. One-half of the self-reported users arrested in 2002 bought their heroin in an outdoor area. All paid at least partly in cash. In the second quarter of 2003, the vast majority of self-reported heroin buys among arrestees took place primarily in outdoor areas (84.2 percent).

The NDIC's Georgia Threat Assessment (April 2003) reported that heroin is "commonly available" in metropolitan Atlanta and in other metropolitan areas in Georgia. Most of the heroin comes from South America and costs between \$80 and \$110 per gram (NDIC, July 2003:11). The DEA estimated purity at 75–85 percent in 2003. Only small quantities of Mexican brown powdered heroin and black tar heroin were identified in Georgia. Working with

U.S. Customs, local police intercepted \$1.4 million worth of heroin in Gwinnett County, a suburb north of Atlanta in May 2003. One person was arrested for receiving the package from the Ivory Coast.

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 who 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.

### Other Opiates/Narcotics

The 2002 Atlanta DAWN data showed a rate of 30 ED mentions per 100,000 population for narcotic analgesics/combinations (exhibit 1). Narcotic analgesics accounted for most of these, with a rate of 24 per 100,000 population. ED mentions for codeine/combinations were up slightly in 2002 to 45; the rate for codeine/combinations was 1 per 100,000 population. In 2002, there were 18 ED mentions of codeine and 27 of acetaminophen-codeine. Rates for hydrocodone/combinations (exhibit 4) and methadone were low (4 and 2, respectively). There were 92 total mentions of methadone in 2002 and 162 in 2001, representing a 43.2-percent decline. In 2000, 2001, and 2002, the rate of oxycodone/combinations mentions was 4 per 100,000 population, and the rate for oxycodone alone was 3 per 100,000 population in 2002. The rate for oxycodone in 2002 represented a significant 88.8-percent increase since 2000.

Treatment data for other opiates or narcotics are only available for secondary and tertiary drug abuse categories. Other opiates continued to account for about 2–3 percent of secondary drugs abused and about 1–1.5 percent of tertiary drugs abused. According to NFLIS data, oxycodone and hydrocodone each accounted for about 1.5 percent of GBI lab identifications of drugs seized by law enforcement.

### Marijuana

Marijuana ED mentions in Atlanta totaled 3,602 in 2002 and were relatively stable from 2001. The estimated rate of marijuana ED mentions per 100,000 population was 96 in 2002 (exhibit 1). There were twice as many marijuana mentions for men as women (2.1:1). The number of ED marijuana mentions made by African-Americans was nearly double the number

made by Whites, with a ratio of 1.8:1. Marijuana ED mentions increased significantly (46 percent) from 2000 to 2002 among African-Americans.

Nearly 40 percent of marijuana ED mentions were among adults age 35 and older. Among patients in the age categories of 18–25 and 26–34, rates of ED mentions were 183 and 168, respectively. The only significant change from 2000 to 2002 in rates of marijuana ED mentions by age group was for 18–19-year-olds; mentions by this group increased by 52 percent in that timeframe.

About one-fifth of public treatment admissions in FY 2003 in metropolitan Atlanta were for those who considered marijuana their primary drug (exhibit 2), an increase from 18.7 percent in 2002. The FY 2002 data indicated a smaller gap between males and females (1.9:1) than in FY 2003 (2.3:1). About 57 percent of those who identified marijuana as their primary drug of choice in FYs 2002 and 2003 were African-American. The vast majority of primary marijuana admissions (approximately 79 percent) in FY 2002 were at least 35 years old; this proportion rose slightly to about 80 percent in FY 2003. Alcohol was the most popular secondary drug of choice, followed by cocaine in both FYs 2002 and 2003.

Outside metropolitan Atlanta, those who reported marijuana as their primary drug of abuse accounted for 25 percent of treatment admissions in publicly funded programs in FY 2002. The male-to-female ratio paralleled that of metropolitan Atlanta, with about 65 percent being male. The breakdown by race/ethnicity in non-metropolitan Georgia counties, on the other hand, was the reverse of that seen in Atlanta. In FY 2002, Whites constituted about 61 percent of primary marijuana treatment admissions and African-Americans accounted for about 37 percent. These percentages remained stable in FY 2003. Comparable to the metropolitan counties, about 80 percent of those preferring marijuana were age 35 or older. In FY 2002, about 55 percent of those who preferred marijuana reported no secondary drug of choice. Another 25 percent reported that alcohol was their secondary drug of choice, and about 14 percent chose cocaine.

Approximately 34 percent of male arrestees in DeKalb and Fulton Counties in 2002 tested positive for marijuana use; this figure rose to an average of 41 percent in the first two quarters of 2003 (exhibit 3). In the second quarter of 2003, slightly more than 80 percent of arrestees younger than 21 tested marijuana-positive. In the second quarter of 2003, 45 percent of

African-Americans tested positive for marijuana, as did 38 percent of Whites.

More than one-half (51.4 percent) of those testing positive for marijuana in 2002 were charged with drug crimes. Forty-three percent of self-reported marijuana users confirmed use in the 30 days prior to arrest in 2002, a considerably higher percentage than those testing positive for four other major drugs. Marijuana-positive arrestees in the 2002 group were least likely to have ever received any drug treatment (30.7 percent) or inpatient mental health treatment (8.2 percent). These figures remained relatively stable in the first quarter of 2003, though the second quarter data seem to indicate some changes. Among marijuana-positive arrestees in the second quarter of 2003, 41.5 percent had received any drug/alcohol treatment and 15.1 percent had received inpatient mental health treatment.

Marijuana, which is readily available in Atlanta and the rest of Georgia, retails for about \$10 per gram in Atlanta, according to a July 2003 NDIC report. A joint costs \$5–\$20 in Columbus and \$3–\$8 in Savannah. Most of the marijuana in Georgia comes from Mexico, although locally grown marijuana is also on the market. Colombian and Jamaican marijuana is reportedly present but less available.

Law enforcement personnel conducted several marijuana seizures in the past 6 months. In August 2003, the GBI seized about 45 marijuana plants from a farm. Another 1,000 pounds were seized from a home doubling as a drug distribution center in Jonesboro, Georgia. In August 2003, police reported the dismantling of a Mexican drug cartel headed by Armando Valencia, who ran a distribution hub in Atlanta. A traffic stop in Atlanta yielded another 3,000 pounds of marijuana (about \$2 million worth) from a rental truck heading northbound on I-85.

Ethnographic data continue to consistently support treatment and law enforcement data that indicate the widespread availability and use of marijuana in Atlanta. All young adult cocaine users in one study reported using marijuana in the 90 days prior to interview. Several respondents indicated a preference for “hydro,” and there are continuing mentions of “fruities”—lollipops made from marijuana and cocaine.

### Stimulants

Continuing an upward trend, the number of ED mentions of methamphetamine in Atlanta rose 43 percent from 2001 to 2002 and nearly 126 percent from 2000

to 2002. The rate per 100,000 population in 2002 was 7, up from 5 in 2001 (exhibit 4). There were 184 mentions for men and 60 for women. The number of mentions for male patients rose 65.8 percent from 2001 to 2002. In 2002, Whites accounted for nearly 60 percent of methamphetamine ED mentions, while African-Americans accounted for 20 percent. From 2000 to 2002, the increase in mentions was greater for Whites (113.2 percent) than African-Americans (100.0 percent). From 2000 to 2002, mentions for patients age 12–17 increased 900 percent. ED mentions of methamphetamine by patients age 18–25 rose 235.7 percent from 2000 to 2002. Within this age cohort, mentions for patients age 20–25 rose 406.7 percent in that timeframe. Among 18–19-year-olds, the number of methamphetamine ED mentions declined 37.9 percent from 2001 to 2002. ED mentions among 26–34-year-olds rose 66.7 percent from 2000 to 2002; in 2001, there were 49 mentions, compared with 75 in 2002. Mentions representing patients 35 and older continued to rise; they increased by 57.5 percent from 2001 to 2002. Among individuals between the ages of 35 and 44, the number of mentions rose 82.8 percent from 2001 to 2002. Mentions by 45–54-year-olds increased 450 percent from 2000 to 2002.

There were 615 ED mentions of amphetamines in 2002, compared with 365 in 2001. The rate of amphetamines ED mentions per 100,000 population was 16 in 2002 (exhibit 4). In 2002, the gap between male and female ED mentions for amphetamines was narrow, with 315 mentions by males and 296 by females. Mentions among most age groups showed a steady increase over the past several years. Continuing this trend, ED mentions among those age 18–25 rose from 74 in 2000 to 191 in 2002, an increase of 158 percent. Mentions representing persons age 26–34 rose (insignificantly) from 117 in 2001 to 163 in 2002.

Treatment admissions in Georgia for methamphetamine increased nearly 100 percent from 1,227 admissions in FY 2002 to 2,449 admissions in FY 2003. Metropolitan Atlanta accounted for 354 of the admissions. In metropolitan Atlanta in FY 2003, primary methamphetamine abuse accounted for 5 percent of treatment admissions (exhibit 2). In the Atlanta area, 58 more women and 52 more men were admitted in FY 2002 than in the previous year. In Atlanta in FY 2003, Whites continued to account for more than 97 percent of methamphetamine admissions, and the vast majority were older than 35 (82.2 percent). Smoking was the most popular route of methamphetamine administration (37.8 percent), followed by oral routes (26.7 percent).

Methamphetamine-positive tests occurred among 2.3 percent of male arrestees in 2002 and remained stable in the first two quarters of 2003 (averaging 2.0 percent). In the second quarter of 2003, nearly 11 percent of the 26–30-year-old arrestees tested methamphetamine-positive, as did 17 percent of White arrestees.

According to the DEA and HIDTA, methamphetamine popularity continues to rise, in part because of its availability and low price. Although methamphetamine is transported from Mexico and California, the DEA has become alarmed at indications of a drastically growing number of methamphetamine labs in Georgia. In FY 2002, 85 labs were found. About one-half of the drugs tested by GBI labs in rural Summerville, Georgia, were methamphetamine. While the price of methamphetamine varies, HIDTA reported that a gram sells for \$110 and a pound costs \$8,250.

The Center for Substance Abuse Research (CESAR) reported in December 2003 that high school and college-age students are taking methylphenidate (Ritalin) and Adderall, (which contains four different amphetamines) as party drugs, to seek a high, or to study. Ethnographic data from Atlanta-area club drug studies among 18–25-year-olds support this national trend.

### Depressants

The number of ED mentions of barbiturates ( $n=250$ ), benzodiazepines (1,267), and miscellaneous other depressants (228) rose only slightly from 2001 to 2002. The rate per 100,000 population for all anxiolytics, sedatives, and hypnotics was 47 in 2002. Benzodiazepines accounted for the majority of mentions in this category, with a rate of 34 per 100,000 population (exhibit 1). ED mentions of these depressants remained stable in Atlanta over the 7-year period from 1995 to 2002. The rates of ED mentions per 100,000 population for alprazolam and clonazepam are shown in exhibit 4.

The treatment data from publicly funded programs include depressants like barbiturates and benzodiazepines only as secondary and tertiary drug choices. In metropolitan Atlanta in FY 2002, about 1 percent of primarily heroin abusers chose benzodiazepines as a secondary drug choice, as did 2 percent of methamphetamine abusers. Among non-metropolitan admissions, 4.3 percent of primary methamphetamine abusers chose benzodiazepines as their secondary drug. Similarly, about 1.5 percent of metropolitan and non-metropolitan primary heroin admissions and about

2.5 percent of metropolitan and non-metropolitan methamphetamine admissions chose benzodiazepines as a tertiary drug. These FY 2002 percentages are consistent with the figures from FYs 2001 and 2003.

The DEA considers benzodiazepines and other prescription depressants to be a minor threat in Georgia. The pills are widely available on the street, but abusers do not seem to have reached the high levels of OxyContin and hydrocodone abuse. According to the April 2003 NDIC and DEA *Georgia Threat Assessment*, local dealers tend to work independently and typically sell such depressants 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. Newspaper accounts of prescription pad thefts and the prosecution of an Augusta medical office manager substantiate this trend.

GBI labs identified a significant number of alprazolam (Xanax) pills in both rural and metropolitan areas of Georgia, according to NFLIS.

### Hallucinogens

In Atlanta in 2002, there was a decline in the rate of lysergic acid diethylamide (LSD) in ED mentions to zero per 100,000 population, down from 2 in 2000 and 2001. In 2002, there were only 18 LSD mentions, compared with 80 in 2001 (a 77.5-percent decline). Most of the 2002 ED mentions involved men rather than women; the male-to-female ratio was 8:1. Following a consistent pattern in recent years, the decrease in LSD mentions from 2001 to 2002 among women was 90.9 percent, compared with 70.4 percent among male patients. Whites ( $n=6$ ) accounted for slightly fewer ED mentions for LSD than African-Americans (9). In 2002, there were 11 LSD mentions among patients in the 18–25 age group, 3 among the 26–34 age group, and 2 among patients age 35 and older. Almost all age groups have shown a decline in the number of LSD ED mentions over time.

The DAWN data provided little information on ED mentions of phencyclidine (PCP) in Atlanta, since data were suppressed in 2000 and 2002. ED mentions of PCP rose insignificantly among African-Americans from 2001 to 2002 (from 10 to 17). The only age-specific data available were for the 55 and older cohort (0 mentions) and 18–25-year-olds (14 mentions).

Treatment data for hallucinogens are only available for secondary and tertiary drug abuse categories, and these are listed as PCP and other hallucinogens. PCP

was listed 4 times as a secondary drug and 3 times as a tertiary drug by the 14,108 people receiving treatment in Georgia in FY 2003. These numbers rose only slightly from the last half of 2002. “Other hallucinogens” were listed 25 times as a secondary drug of abuse and 36 times as a tertiary drug, showing a decline from the last half of 2002.

According to ADAM data for the first two quarters of 2003, no male arrestees tested positive for PCP (the only hallucinogen listed). While ED mentions indicated a decline in rates, the DEA reported an increase in the availability of LSD, especially that involving White traffickers/users between the ages of 18 and 25. LSD is usually encountered in school settings and is imported through the U.S. Postal Service.

Local harm reduction groups have cautioned that what is being sold as LSD is actually a designer drug that can be lethal when taken at the same dosage as LSD.

### Club Drugs

The number of ED mentions of methylenedioxymethamphetamine (MDMA or ecstasy) declined nearly 33 percent to 118 mentions in 2002, down from the all-time high of 175 mentions in 2001. The rate of MDMA ED mentions in 2002 was 3 per 100,000 population (exhibit 4). The DAWN data list nine ketamine mentions but no mentions of gamma hydroxybutyrate (GHB) or flunitrazepam (Rohypnol).

MDMA ED mentions varied substantially by gender and race/ethnicity, as in previous years. In 2002, MDMA ED mentions for male patients were twice those among females (2.1:1). Continuing a 3-year trend, the racial breakdown was about evenly split between African-Americans and Whites. In 2002, there were only 6 ED mentions of MDMA among 11–17-year-olds, compared with 26 mentions in 2001. The most MDMA mentions (57) were among young adult patients (age 18–25), followed by 26–34-year-olds (41). Most (84 percent) of the ED mentions of MDMA were part of a multidrug episode.

The April 2003 NDIC and DEA *Georgia Threat Assessment* indicated that most dealers are middle and upper class White high school and college students between the ages of 18 and 25. The drug retails at \$25–\$30 per tablet, according to a July 2003 report by the NDIC, although ethnographic data indicate that many users buy ecstasy in bulk.

Several respondents talked about “trolling” or “candy flipping,” in which they used acid and ecstasy together.

er. One respondent explained how he made a profit by selling heroin as ecstasy, and several respondents reported becoming addicted to heroin from the caplets sold as ecstasy. In addition, there seem to be a growing number of African-American ecstasy users who use the drug at hip-hop clubs. Gay men in their thirties also use ecstasy at clubs and parties. There is little mention in the epidemiological indicators about GHB, but there is ethnographic evidence for the frequent use of GHB and GHB mixed with other club drugs by gay men involved in the Atlanta party scene.

### Other Drugs

In 2002, there were nine total ED mentions in Atlanta for inhalants; all of them were men, six of whom were White. Four mentions were for patients age 26–34. DAWN does not list inhalants for single drug mentions, but four mentions involved in multi-drug episodes also involved inhalants. Of the nine patients who mentioned inhalants, six were treated and released, and three were admitted to the hospital. Treatment data for “other drugs” are available only for secondary and tertiary drug abuse categories, including inhalants and other drugs. Inhalants, most commonly mentioned in the non-metropolitan county admissions data, were listed nine times as a secondary drug of abuse and six times as a tertiary drug of abuse.

There were 193 ED mentions for selective serotonin re-uptake inhibitor (SSRI) antidepressants, which represented a 35.2-percent decline from 2001.

An investigation of emergency department visits in Atlanta indicated that moonshine is still popular in some parts of the State (Reuters, August 26, 2003). A study by Georgia Poison Control found the rates of moonshine use in the urban area to be much higher than expected. Patients arrived at the ED with signs of lead poisoning, including seizures, abdominal pain, kidney problems, ulcers, and anemia.

Ethnographic sources report that youth as young as middle school students are now doing “skittles” or

Coricidin as a source of dextromethorphan (DXM). The Coricidin pills are cheaper than other pills and more readily available. The use of the name “skittles” is based on the candy coating and the blue or purple colors. Reports are mixed; some users describe euphoria and feelings of floating, and others complain about problems with breathing and paranoia.

## INFECTIOUS DISEASES RELATED TO DRUG ABUSE

### AIDS

In 2002, Georgia ranked eighth in the Nation in the number of AIDS cases, up from ninth in 2001. Since the State began reporting, there have been 26,008 AIDS cases. Approximately 746 new AIDS cases were reported in Georgia between January and August 2003, for a cumulative total of 12,683 people living with AIDS.

Nearly 54 percent of the new AIDS cases were African-American males, and 24 percent were African-American females. Most (81 percent) were older than 30, with the numbers evenly split between the 30–39 ( $n=134$ ) and the 40–49 (130) age categories. Fifty-six percent of the new AIDS cases were in two Atlanta counties: Fulton (311) and DeKalb (107).

### Other Sexually Transmitted Diseases (STDs)

New cases of STDs identified in Georgia in 2003 included chlamydia (24,047), gonorrhea (11,916), and syphilis (1,356). There were 24 new cases of hepatitis B and only 5 new confirmed cases of hepatitis C.

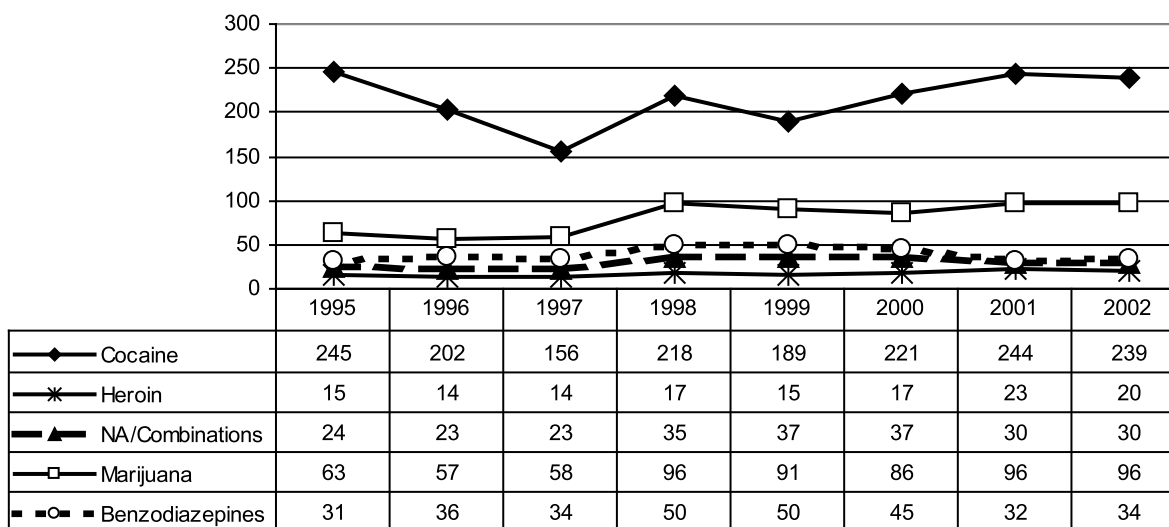
## REFERENCE

Centers for Disease Control and Prevention (CDC). *Basic Statistics-Ten States/Territories and Cities Reporting the Highest Number of AIDS Cases*. Data from the semiannual *HIV/AIDS Surveillance Report*, Atlanta, Georgia (2003). Retrieved November 19, 2003, from the World Wide Web at <<http://www.cdc.gov/hiv/stats.htm>>.

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**Exhibit 1. Rates of ED Mentions Per 100,000 Population in Atlanta for Cocaine, Heroin, Narcotic Analgesics/Combinations, Marijuana, and Benzodiazepines: 1995–2002**



SOURCE: DAWN, OAS, SAMHSA

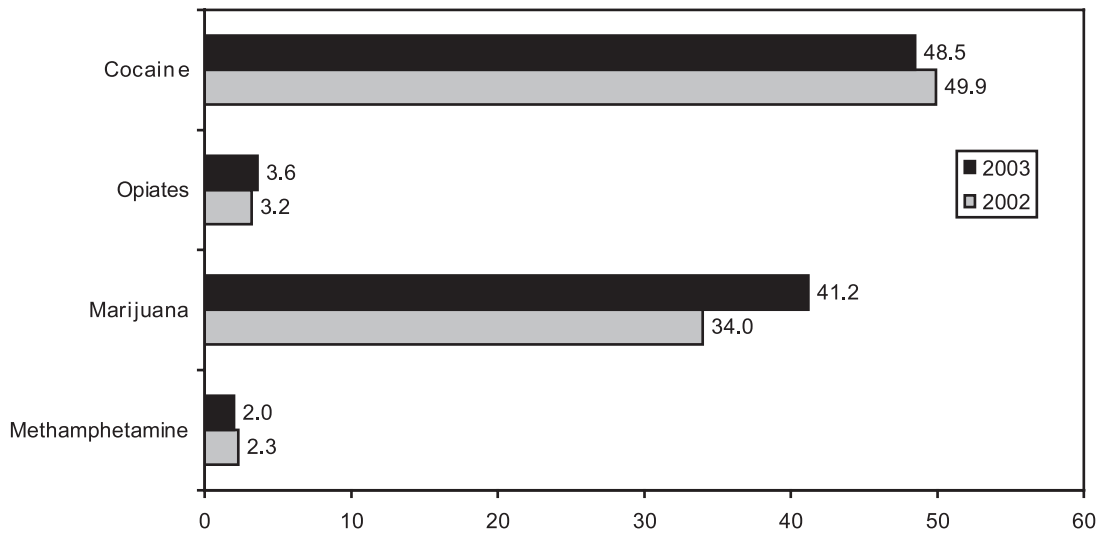
**Exhibit 2. Percentages of Primary Treatment Admissions in Atlanta: FYs 2000–2003**

Drug	FY 2000	FY 2001	FY 2002	FY 2003
Cocaine/Crack	58.3	58.5	43.1	43.1
Heroin	6.6	6.7	7.6	5.8
Marijuana	16.0	15.5	18.7	19.9
Methamphetamine	1.5	1.6	3.1	5.0
Other Drugs <sup>1</sup>	17.6	26.1	21.3	26.2
Total Admissions (N=)	6,990	7,996	7,909	6,953

<sup>1</sup>Includes “alcohol-in-combination.”

SOURCE: Department of Human Resources

**Exhibit 3. Percentages of Adult Male Arrestees Testing Positive by Drug in Atlanta: 2002–2003<sup>1</sup>**



<sup>1</sup>2002 data are for full year and 2003 data are for the first two quarters and are averaged across the two quarters.

SOURCE: ADAM. NIJ

**Exhibit 4. Rates of ED Mentions Per 100,000 Population in Atlanta for 9 Selected Drugs: 1995–2002**

Drug	1995	1996	1997	1998	1999	2000	2001	2002
Methamphetamine	6	5	8	6	3	4	5	7
Amphetamines	3	5	9	11	10	11	10	16
MDMA	... <sup>1</sup>	1	1	1	2	2	5	3
Oxycodone/Comb.	3	3	3	3	2	4	4	4
Hydrocodone/Comb.	7	5	6	10	7	7	6	4
Alprazolam	10	11	10	14	12	9	9	8
Clonazepam	2	4	3	4	4	4	3	2

<sup>1</sup>Dots (...) indicate than an estimate with a relative standard error greater than 50 percent has been suppressed.

SOURCE: DAWN, OAS, SAMHSA



# Patterns and Trends in Drug Abuse: Greater Boston

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

## ABSTRACT

Heroin, cocaine, and marijuana indicators, at high and stable levels, revealed their continued dominating presence as the major street drugs in Boston in 2003. Additionally, certain indicators revealed increasing narcotic analgesics abuse. Cocaine, mentioned most (excluding alcohol-in-combination) among drugs reported in estimated ED visits, was stable at a rate of 156 per 100,000 population, twice the national rate of 78. In 2001, cocaine was mentioned in 35 percent of the drug abuse deaths (second only to heroin). Cocaine treatment percentages remained stable, with 24 percent of those seeking treatment reporting current (past-month) cocaine use in FY 2003. After years of continued growth, some heroin indicators showed signs of stabilization. The 2002 Boston rate of heroin ED mentions (111 per 100,000 population) was stable at three times the national rate of 36. In 2001, as during the previous 5 years, heroin was mentioned in more than 50 percent of the 374 drug abuse deaths. Although heroin ED mentions and death mentions appeared stable, heroin/other opiates treatment admissions steadily increased during the past 8 years, accounting for one-half of all primary drug admissions in FY 2003. Estimates of marijuana ED mentions appeared relatively stable at a rate that was 2.5 times the national rate. Marijuana treatment admissions were stable, with 11 percent of those seeking treatment reporting current (past-month) marijuana use in FY 2003. Boston experienced the fourth highest rate of estimated narcotic analgesics ED mentions and the highest rate of estimated oxycodone/combinations (a subset of narcotic analgesics) ED mentions among all 21 DAWN cities. There were 206 narcotic analgesic mentions among the 374 drug abuse deaths in 2001. Additionally, rising numbers of lab samples and Helpline mentions of oxycodone and oxycodone/combinations and derivatives, as well as increases in opium Helpline mentions, contributed to a hypothesis that Boston is experiencing a growing narcotic analgesic problem. Boston also experienced the highest rate among all 21 DAWN cities of estimated ED mentions of benzodiazepines, and they were mentioned 136 times among the 374 drug abuse deaths in 2001. Though anecdotal reports of increased methamphetamine abuse have surfaced, indicators have yet to substantiate the claim. Boston

experienced low numbers and stable rates of estimated methamphetamine ED mentions in 2002. In 2002, there were 179 new HIV cases in Boston. The primary transmission risk of these new cases included 10 percent who were IDUs, 7 percent who had sex with IDUs, and 27 percent with an unknown/undetermined transmission status. In 2002, there were 169 new AIDS cases. By transmission risk, this included 22 percent who were IDUs, 8 percent who had sex with an IDU, and 25 percent for whom the risk behavior was unknown/undetermined.

## INTRODUCTION

### Area Description

This report presents data from a number of different sources with varied Boston-area geographical parameters. 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.

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

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- A large population of college students in both the greater Boston area and western Massachusetts
- Several seaport cities with major fishing industries (now in decline) and harbor areas
- Two international airports (Boston and Springfield) and an expanding domestic travel airport (Worcester)
- A struggling economy with increasing unemployment, declining State revenues, and social service cutbacks
- A record number of homeless individuals seeking shelter

### Data Sources

Data sources for this report include the following:

- **Drug abuse-related death data** were provided by the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for 1996–2001 for a Boston metropolitan area consisting of five Massachusetts counties: Essex, Middlesex, Norfolk, Plymouth, and Suffolk.
- **Emergency department (ED) drug mentions data** were provided by DAWN, OAS, SAMHSA for 1995–2002 for a Boston metropolitan area consisting of five Massachusetts counties: Essex, Middlesex, Norfolk, Plymouth, and Suffolk.
- **State-funded substance abuse treatment admissions data** were provided by the Massachusetts Department of Public Health (DPH), Bureau of Substance Abuse Services, for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (Community Health Network Area [CHNA] 19), for fiscal year (FY) 1996 through FY 2003 (July 1, 1995, through June 30, 2003).
- **Data on seized drug samples** were provided by the DPH Drug Analysis Laboratory for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19), for January 1, 1997, through June 30, 2003.
- **Data on drug mentions in helpline calls** were provided by the Massachusetts Substance Abuse Information and Education Helpline for a Boston

region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19), from FY 2000 through FY 2003.

- **Drug arrests data** for the city of Boston were provided by the Boston Police Department, Drug Control Unit and Office of Research and Evaluation for 1997–2002.
- **Drug price, purity, and availability data** for New England, as of November 2003, were provided by the Drug Enforcement Administration (DEA), New England Field Division Intelligence Group.
- **Data on OxyContin thefts** in Massachusetts were provided by the Pharmacy Board of Registration for 1998 through September 2003.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the DPH, AIDS Surveillance Program by year for 1993–2002 and cumulative through November 1, 2003.

### DRUG ABUSE PATTERNS AND TRENDS

#### Cocaine/Crack

Powder cocaine and crack are heavily abused drugs in Boston. The most recent cocaine/crack indicators are stable and show continued levels of high use and abuse.

In 2001, cocaine was indicated in 132 (35.3 percent) of the 374 drug abuse deaths—second only to heroin/morphine. Sixteen of those deaths were single-drug deaths.

In 2002, there were 5,611 estimated cocaine/crack ED mentions (exhibit 1); cocaine/crack was a factor in 31 percent of all ED drug episodes ( $N=17,965$ ) in Boston in 2002. The rate of cocaine/crack ED mentions per 100,000 population was 156 in 2002, compared with 138 in 2001 and 108 in 2000.

The 2002 ED rates by gender show that the cocaine/crack rate for males was almost 1.8 times the rate for females (200 vs. 113 per 100,000 population). By age group, the highest rate (358 per 100,000 population) was among those age 26–34. Within that group, those age 26–29 had the highest rate in Boston in 2002—403 per 100,000 population. The rate for those age 18–25 increased significantly by 76 percent between 2000 and 2002. Similarly, the rate for those age 45–54 increased by 70 percent during the same period.

In FY 2003, 1,946 treatment admissions (8 percent of all admissions) reported cocaine/crack as their primary drug (exhibit 2a). There were 5,820 mentions (24 percent of all admissions) of current cocaine/crack use among those admitted to State-funded treatment programs (exhibit 3). The proportion reporting cocaine/crack as their primary drug decreased 8 percent from FY 2002, 11 percent from FY 2001, and 65 percent from FY 1996. The proportion of mentions of current cocaine/crack use decreased 4 percent from FY 2001 and 35 percent from FY 1996.

As shown in exhibit 2a, the gender distribution of cocaine/crack primary drug treatment admissions in FY 2003 (56 percent male and 44 percent female) continued to reflect a trend of increasing female proportions (up 19 percent from FY 2002) and decreasing male proportions (down 11 percent from FY 2002).

The mean age of those admitted to treatment for cocaine/crack in FY 2003 was 37.1. Age group analysis indicates an aging trend among cocaine/crack admissions. The proportion of admissions age 19–29 (15 percent) in FY 2003 reflected a 52-percent decline from FY 1997. Similarly, the proportion of those age 29–39 (49 percent) reflected a decrease of 8 percent from FY 1997. Conversely, the proportion of admissions age 40–49 (30 percent) increased 131 percent from FY 1997 to FY 2003.

The FY 2003 racial distribution for cocaine/crack admissions (27 percent White, 58 percent Black, 11 percent Hispanic) reflected a slight increase in Whites (up 13 percent from FY 1997) and a decrease in the proportion of Black admissions (down 13 percent from FY 1997). About one in four (24 percent) primary cocaine/crack admissions reported being homeless in FY 2003, a decrease of 14 percent from FY 2002.

There were 1,762 Class B (mainly cocaine and crack) drug arrests in 2002 (exhibit 4). Class B arrests accounted for the largest proportion of drug arrests (42 percent) in the city of Boston, unchanged from 2001. However, the proportion of Class B arrests decreased 12 percent from 1997 to 2002. The proportion of White Class B arrests decreased 21 percent from 2000 to 2002, when they accounted for 32 percent. The proportion of Black Class B arrests (67 percent in 2002), however, increased 17 percent during the same period. The proportion of female Class B arrests decreased 16 percent between 2000 and 2002, when they accounted for 13 percent. The proportion of Class B arrestees age 20–24 (20 percent in 2002) reflected an increase of 25 percent from 2000; the proportion of those age 25–39 (44 percent) decreased

13 percent during the same period.

In 2002, 2,694 seized samples of cocaine/crack (30 percent of all drug samples) were analyzed. This proportion was similar to that in 2001. Analysis of half-year data for 2003 (January–June) suggests a slight decrease in the number and proportion of cocaine/crack samples.

In FY 2003, there were 1,092 calls to the Helpline during which cocaine/crack was self-identified as a substance of abuse (15 percent of all mentions). The proportion of Helpline call mentions attributable to cocaine/crack in FY 2003 was similar to FY 2002.

The DEA reports that street cocaine costs \$50–\$90 per gram (exhibit 5). A rock of crack costs \$10–\$20. Cocaine purity has been decreasing, but availability is “steady” throughout Massachusetts, “especially in inner cities.”

## Heroin

Heroin is one of Boston’s most abused drugs. Some indicators show heroin abuse possibly stabilizing at high levels after years of continued growth. Heroin/morphine was mentioned most often among drug abuse deaths. Heroin ED mentions were stable at high levels. The proportion of heroin treatment admissions continued to rise, with a majority of those in treatment reporting heroin as their primary drug for the first time.

In 2001, heroin/morphine was detected in 52.1 percent ( $n=195$ ) of the 374 drug abuse deaths in Boston—more than any other drug. Twenty-seven of those mentions were single-drug deaths.

In 2002, there were 3,999 estimated heroin ED mentions (exhibit 1); heroin was a factor in 22.3 percent of all Boston ED drug episodes ( $N=17,965$ ) in 2002. The rate of heroin ED mentions per 100,000 population was 111 in 2002, compared with 122 in 2001 and 102 in 2000.

The 2002 ED rates by gender show that the heroin rate for males was more than two times the rate for females (152 vs. 72 per 100,000 population). The highest rate for an age group (311 per 100,000 population) was among those age 26–29. Between 2000 and 2002, the rate of heroin mentions among those age 18–19 increased significantly by 215 percent.

In FY 2003, 12,139 treatment clients (50 percent of all admissions) reported heroin or other opiates/

tranquilizers as their primary drug (exhibit 2a), and there were 10,913 mentions (45 percent of all admissions) of current (past-month) heroin use among those admitted to State-funded treatment programs (exhibit 3). The proportion reporting heroin as their primary drug increased 8 percent from FY 2002, 20 percent from FY 2001, and 72 percent from FY 1996. The proportion of mentions of current heroin use in FY 2003 reflected a 7-percent increase from FY 2002, a 15-percent increase from FY 2001, and a 55-percent increase from FY 1996.

The gender distribution of primary heroin treatment admissions in FY 2003 (74 percent male and 26 percent female) reflected a slight shift from the distribution in FY 2001, with a 4-percent decrease in the male proportion and 13-percent increase in the female proportion (exhibit 2a). However, the male proportion increased by 7 percent and the female proportion decreased by 16 percent from FY 1997.

The mean age of heroin abusers (primary drug) admitted to treatment in FY 2003 was 35.2. The proportion of admissions age 30–39 in FY 2003 (35 percent) was a decrease of 10 percent from FY 2001 and 22 percent from FY 1997. The FY 2003 racial distribution for heroin admissions (56 percent White, 17 percent Black, 22 percent Hispanic) continued to reflect a trend of increasing White percentages (up 14 percent from FY 1997) and decreasing Black percentages (down 32 percent from FY 1997). The proportion of heroin admissions reporting being homeless (40 percent) increased 14 percent from FY 2002. Sixty-eight percent of those in treatment for heroin as their primary drug of abuse reported needle use in the past year.

There were 947 Class A (mainly heroin and other opiates) drug arrests in 2002 (exhibit 4). The proportion of Class A drug arrests among all drug arrests (23 percent) in the city of Boston in 2002 reflected a 12-percent decrease from 2001 and 15-percent decrease from 2000.

The proportion of Class A Hispanic arrests (33 percent) decreased 16.4 percent from 2001. The proportion of Class A arrests of those age 20–24 (16 percent) in 2002 reflected a 25.4-percent increase from 2001.

In 2002, 1,376 seized samples of heroin (15 percent of all drug samples) were analyzed. The proportion of heroin samples analyzed decreased 21 percent from 2001 to 2002. Analysis of half-year data for 2003 (January–June) suggests a continued decrease in the number and proportion of heroin samples.

In FY 2003, heroin was self-identified as a substance of abuse in 1,895 calls to the Helpline (accounting for 27 percent of all mentions). The proportion of Helpline call mentions attributable to heroin was similar in FYs 2002 and 2003.

The DEA reports that in Boston street heroin costs \$6–\$20 for a bag that can be 60 percent pure and is “readily available” throughout the New England area (exhibit 5).

### **Narcotic Analgesics**

Increases in narcotic analgesics abuse indicators, including oxycodone and other opiates, are alarming. Narcotic analgesics were mentioned 206 times among 374 drug abuse deaths in 2001.

There were an estimated 3,479 narcotic analgesics/combinations ED mentions in Boston in 2002. This total represents a significant 73-percent increase from 2000 and a 153-percent increase from 1995. The 2002 narcotic analgesics/combinations rate of 97 ED mentions per 100,000 population was twice the national rate of 46 and fourth highest among all 21 DAWN sites.

In 2002, Boston had the highest ED rate of oxycodone/combinations mentions (a subset of the narcotic analgesics/combinations category) among all 21 DAWN sites. Boston’s rate of 34 was 3.8 times the national rate of 9.

In FY 2003, 763 treatment admissions (3 percent of all admissions) identified other opiates/synthetics as their primary drug of abuse.

Drug lab submissions show a 56-percent increase in the number of oxycodone samples from 2001 to 2002 (138 and 212 samples, respectively). Half-year data for 2003 (January–June) show continued growth, with 126 samples analyzed.

In FY 2003, there were 519 calls to the Helpline during which oxycodone, or a derivative was self-identified as a substance of abuse (7 percent of all mentions). The proportion of Helpline call mentions attributable to oxycodone/oxycodone and derivatives increased 20 percent from FY 2002 and 180 percent from FY 2001. There were 60 opium Helpline calls in FY 2002, an increase of 200 percent from FY 2000.

There were 93 statewide OxyContin thefts from pharmacies during 2002, compared with 139 in 2001 and 26 in 2000. Such thefts in the first half of 2003

were stable (48 thefts), but the number of third-quarter thefts dropped off markedly (2 thefts). There are many possible reasons for this drop. For example, the decrease might reflect a real drop in demand or possibly an effect of changes in pharmacy supply procedures. Massachusetts pharmacies are required to either continue supplying OxyContin or refer consumers to another supply source. Some have opted to receive prescriptions then fill and deliver the order from another undisclosed location. Signs posting this policy might have provided a deterring effect on otherwise would-be thefts. The DEA reports that OxyContin costs \$1 per milligram on the street (exhibit 5).

## Marijuana

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

In Massachusetts, marijuana is not routinely tested and reported among drug abuse death surveillance.

In 2002, there were 4,273 estimated marijuana ED mentions (exhibit 1); marijuana was a factor in 24 percent of all ED drug episodes ( $N=17,965$ ) in 2002. The rate of marijuana ED mentions per 100,000 population was 119 in 2002.

The 2002 DAWN data showed that the rate of marijuana ED mentions for males was almost two times the rate for females (156 vs. 83 per 100,000 population). The highest rate by an age group (321 per 100,000 population) was reported for those age 18–25. Within that group, the rate for those age 18–19 was 630 per 100,000 population.

In FY 2003, 1,026 treatment admissions reported marijuana as their primary drug (exhibit 2b); there were 2,668 mentions (11 percent of all admissions) of current marijuana use among those admitted to State-funded treatment programs (exhibit 3). The proportion of treatment admissions reporting marijuana as their primary drug in FY 2003 (4 percent) was similar to that in FY 2002, FY 2001, and FY 1996. The proportion of admissions who mentioned current marijuana use decreased 15 percent from FY 2001 to FY 2003 and 31 percent from FY 1996 to FY 2003.

The gender distribution of primary marijuana treatment admissions in FY 2003 (77 percent male and 23 percent female) was similar to the previous 2 years (exhibit 2b).

The mean age of those admitted to marijuana treatment in FY 2003 was 25.1. Seventy-five percent of admissions to treatment for primary marijuana use

were younger than 30. Within this group, the proportions of those age 19–29 have increased by 21 percent since FY 1997, while the proportions of those age 18 and younger decreased by 30 percent since then.

In FY 2003, the racial distribution for marijuana admissions (26 percent White, 49 percent Black, 22 percent Hispanic) continued a shift toward increasing Black proportions (up 26 percent from FY 1997) and decreasing White proportions (down 30 percent from FY 1997).

Fewer than 1 in 10 (9 percent) marijuana primary drug admissions reported being homeless in FY 2003.

There were 1,375 Class D (mainly marijuana) drug arrests in 2002 (exhibit 4). The proportion of Class D arrests among all drug arrests (32.7 percent) in the city of Boston in 2002 represented a 14.0-percent increase from 2001.

From 2000 to 2002, the proportion of White Class D arrests (37 percent in 2002) decreased 14.0 percent, while the proportion of Black Class D arrests (62 percent in 2002) increased 10.8 percent. The proportion of Class D arrestees age 25–39 (28 percent) increased 17.3 percent from 2000 to 2002, while the proportion of those younger than 20 (37 percent in 2002) decreased 11.1 percent from 2000 to 2002.

In 2002, 3,366 seized samples of marijuana were analyzed by the drug lab, accounting for more than any other drug (37 percent). The proportion of marijuana samples analyzed in 2002 was similar to 2001. Analysis of half-year data for 2003 (January–June) suggests a slight decrease in the number and proportion of samples from 2002.

In FY 2003, there were 261 calls to the Helpline during which marijuana was self-identified as a substance of abuse, accounting for 4 percent of all drug mentions.

The DEA reports that marijuana is readily available in Massachusetts and sells for \$800–\$1,500 per pound for “commercial grade” (exhibit 5). A marijuana cigarette or “joint” typically costs \$5.

## Benzodiazepines

As a group, benzodiazepine abuse indicators are at high levels.

Benzodiazepines were mentioned 136 times among the 374 drug abuse deaths in 2001.

There were an estimated 3,665 benzodiazepines ED mentions in 2002. Boston's 2002 benzodiazepines rate of 102 ED mentions per 100,000 population was highest among all 21 DAWN sites and 2.5 times the national rate of 42.

Treatment, arrest, and drug lab data are currently unavailable for benzodiazepines.

In FY 2003, there were 195 calls to the Helpline during which benzodiazepines (including Ativan, Valium, Xanax, Klonopin, and others) were self-identified as substances of abuse, accounting for 2.8 percent of all mentions. The proportion of Helpline call mentions attributable to benzodiazepines has remained fairly stable from FY 2000 to FY 2003.

### **Methylenedioxymethamphetamine (MDMA or Ecstasy)**

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

There were an estimated 116 MDMA ED mentions in 2002, compared with 140 in 2001 (exhibit 1). Of these, 59 percent were among males, and 46 percent were among those age 18–25.

Drug lab submissions show the number of MDMA samples peaked at 106 in 2000 then dropped to 69 and 80 samples in 2001 and 2002, respectively. Half-year data for 2003 (January–June) continue to show a drop, with 22 samples analyzed.

In FY 2003, there were 32 calls to the Helpline during which MDMA was self-identified as a substance of abuse (fewer than 1 percent of all mentions). The number of MDMA Helpline calls has been similar for the 4 fiscal years (2000–2003).

The DEA reports that one MDMA tablet costs between \$20 and \$25 retail (exhibit 5). Distributed at clubs and on college campuses, MDMA has remained highly available, “in spite of law enforcement seizures.”

### **Other Drugs: Amphetamines, Methamphetamine, Ketamine, Barbiturates, Lysergic Acid Diethylamide (LSD), and Phencyclidine (PCP)**

There were an estimated 541 amphetamine ED mentions in Boston in 2002 (exhibit 1). The 2002 rate of

15 amphetamines mentions per 100,000 population was the highest amphetamines ED mentions rate that Boston has experienced in 8 years of DAWN reporting. Though small, the numbers of amphetamine lab samples increased from 2000 to 2001 and 2002 (4, 25, 42, respectively). Half-year data for 2003 (January–June) suggest a stable level, with 24 samples analyzed.

There were 13 estimated ED mentions of methamphetamine in 2002 (exhibit 1). This number is similar to each of the 2 previous years. In FY 2003, there were 10 methamphetamine calls to the Helpline.

The DEA reports that methamphetamine costs \$200 per gram and is available “in limited (user-level) quantities” in New England. The purity level is unknown.

There were an estimated 13 ketamine ED mentions in 2002. A comparison of lab samples for ketamine for 2000, 2001, and 2002 shows small but increasing numbers (20, 18, and 43 samples, respectively), but they seem to have dropped off during the first half of 2003 (7 samples). The DEA reports that a vial of ketamine costs \$50–\$70 (exhibit 5).

There were an estimated 637 barbiturates ED mentions in 2002. Boston's barbiturates ED rate of 18 mentions per 100,000 population was the highest barbiturates rate among the 8 years of DAWN reporting and 4.5 times the national rate of 4.

There were few estimated LSD, PCP, or GHB ED mentions in Boston during 2002 (19, 20, and 27, respectively). The DEA reports that LSD costs \$5 per dose, and a capful of GHB costs \$5 (exhibit 5).

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

In 2002, there were 179 new HIV cases in Boston (exhibit 6). The primary transmission risk of these new cases included 10 percent who were injection drug users (IDUs), 7 percent who had sex with IDUs, and 27 percent with an unknown/undetermined transmission status. In 2002, there were 169 new AIDS cases. By transmission risk, this included 22 percent who were IDUs, 8 percent who had sex with IDUs, and 25 percent for whom the risk factor was unknown/undetermined.

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**Exhibit 1. Estimated ED Mentions for Selected Drugs as a Percentage of Total Drug Episodes<sup>1</sup>: 1995–2002<sup>2</sup>**

Drug	1995		1996		1997		1998		1999		2000		2001		2002	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Alcohol-in-Combination	6,297	(39)	5,351	(40)	4,890	(40)	5,130	(38)	4,438	(38)	4,975	(33)	5,818	(35)	5,916	(33)
Cocaine	5,267	(33)	4,106	(30)	3,332	(27)	4,526	(33)	3,560	(31)	4,099	(28)	4,933	(29)	5,611	(31)
Heroin	2,956	(18)	2,729	(20)	2,500	(20)	2,738	(20)	2,861	(25)	3,867	(26)	4,358	(26)	3,999	(22)
Marijuana	2,401	(15)	2,127	(16)	1,768	(14)	2,907	(21)	1,960	(17)	2,945	(20)	3,423	(20)	4,273	(24)
Amphetamines	... <sup>3</sup>	...	116	(<1)	...	...	180	(1)	216	(2)	369	(2)	392	(2)	541	(3)
Methamphetamine	7	(<1)	...		...	...	6	(<1)	12	(<1)	14	(<1)	14	(<1)	13	(<1)
MDMA	7	(<1)	9	(<1)	16	(<1)	39	(<1)	87	(<1)	125	(<1)	140	(<1)	116	(<1)
LSD	184	(1)	82	(<1)	37	(<1)	53	(<1)	44	(<1)	41	(<1)	33	(<1)	19	(<1)
PCP	81	(<1)	18	(<1)	22	(<1)	21	(<1)	7	(<1)	11	(<1)	23	(<1)	20	(<1)
<b>Total Drug Abuse Episodes</b>	<b>16,065</b>		<b>13,530</b>		<b>12,224</b>		<b>13,656</b>		<b>11,668</b>		<b>14,901</b>		<b>16,853</b>		<b>17,965</b>	
<b>Total Drug Abuse Mentions</b>	<b>30,026</b>		<b>24,904</b>		<b>22,383</b>		<b>24,875</b>		<b>21,217</b>		<b>25,854</b>		<b>29,795</b>		<b>32,488</b>	

<sup>1</sup>Percentage of episodes for which each drug was mentioned (mentions/total drug episodes).

<sup>2</sup>Data for 2002 are preliminary.

<sup>3</sup>Dots (...) indicate that that an estimate with a relative standard error greater than 50 percent has been suppressed.

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 2a. Client Characteristics in Greater Boston State-Funded Treatment Programs, by Primary Drug<sup>1</sup> and Percent: FY 1998–FY 2003<sup>2</sup>**

Demographic Characteristic	Cocaine/Crack						Heroin or Other Opiates/Tranquilizers					
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003 <sup>3</sup>	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003 <sup>3</sup>
Gender												
Male	60	59	59	62	63	56	72	72	75	76	77	74
Female	40	41	41	38	37	44	28	28	25	24	23	26
Race/Ethnicity												
White	23	22	23	26	25	27	47	49	51	50	53	56
Black	64	63	65	60	61	58	24	24	22	21	18	17
Hispanic	10	11	10	12	11	11	23	22	23	25	25	22
Other	3	3	3	3	3	4	6	5	5	5	4	5
Age at Admission (Average age)	(33.7)	(35.2)	(35.5)	(36.0)	(36.7)	(37.1)	(34.6)	(35.2)	(35.3)	(35.1)	(34.6)	(35.2)
18 and younger	1	1	<1	1	<1	<1	1	1	<1	1	1	<1
19–29	28	19	18	15	15	15	29	27	27	29	32	31
30–39	53	56	55	55	51	49	42	42	40	39	37	35
40–49	16	21	23	26	29	30	24	25	27	25	24	26
50 and older	2	4	4	4	5	5	4	6	5	6	6	7
Marital Status												
Married	10	11	10	11	12	12	10	10	11	10	10	9
Separated/divorced	19	18	16	17	19	19	21	20	19	17	15	16
Never married	71	71	74	72	69	70	69	70	70	73	75	75
Annual Income												
\$999 and lower	56	56	59	58	60	57	67	67	72	73	78	78
\$1,000–\$9,999	28	28	24	22	23	26	23	23	16	15	11	12
\$10,000 and over	16	16	17	20	18	18	10	10	12	12	11	10
Homeless	27	23	21	24	28	24	26	26	22	29	35	40
Criminal Justice Involvement	29	34	34	35	37	37	19	22	22	22	22	18
Mental Health Problem	26	29	30	32	33	35	20	21	18	18	18	16
Needle Use in Past Year	5	6	5	7	7	9	63	63	63	58	62	68
<b>Total (N)</b>	<b>(3,869)</b>	<b>(3,165)</b>	<b>(2,837)</b>	<b>(2,283)</b>	<b>(2,230)</b>	<b>(1,946)</b>	<b>(9,240)</b>	<b>(8,915)</b>	<b>(9,137)</b>	<b>(10,553)</b>	<b>(11,828)</b>	<b>(12,139)</b>

<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.

<sup>3</sup> FY 2003 = 7/1/2002–6/30/2003.

SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services



**Exhibit 2b. Client Characteristics in Greater Boston State-Funded Treatment Programs, by Primary Drug<sup>1</sup> and Percent: FY 1998–FY 2003<sup>2</sup>**

Demographic Characteristic	Marijuana						Alcohol					
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003 <sup>3</sup>	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003 <sup>3</sup>
Gender												
Male	79	76	73	78	77	77	81	81	82	82	82	79
Female	21	24	27	22	23	23	19	19	18	18	18	21
Race/Ethnicity												
White	30	28	28	28	27	26	56	55	55	51	51	49
Black	45	44	47	46	48	49	30	30	31	32	32	33
Hispanic	22	23	21	22	20	22	11	12	12	14	13	14
Other	4	4	4	3	5	4	3	3	3	3	4	4
Age at Admission (Average age)	(23.8)	(25.1)	(25.4)	(24.2)	(24.8)	(25.1)	(38.1)	(39.1)	(39.4)	(39.2)	(39.8)	(40.2)
18 and younger	34	24	19	27	24	23	2	1	1	1	1	2
19–29	44	50	56	51	50	52	17	15	14	14	13	14
30–39	17	17	18	16	19	17	41	39	38	36	36	31
40–49	5	6	5	6	6	6	27	32	34	35	36	37
50 and older	1	2	2	1	1	2	13	14	14	14	15	17
Marital Status												
Married	6	4	5	5	6	6	10	10	10	10	11	11
Separated/divorced	5	6	7	6	7	6	26	24	22	21	22	21
Never married	89	90	88	89	88	88	64	66	68	69	67	68
Annual Income												
\$999 and lower	55	59	55	57	60	64	53	51	55	57	65	63
\$1,000–\$9,999	28	26	27	22	21	21	27	28	24	22	14	14
\$10,000 and over	17	14	18	21	18	15	20	21	21	21	21	23
Homeless	7	9	10	11	12	9	40	40	41	43	44	41
Criminal Justice System Involvement	55	62	57	55	57	49	28	28	26	25	27	26
Mental Health Problem	32	28	31	29	32	31	23	24	23	22	24	21
Needle Use in Past Year	2	2	2	2	2	2	4	4	5	4	6	5
<b>Total (N)</b>	<b>(1,143)</b>	<b>(1,125)</b>	<b>(1,109)</b>	<b>(1,098)</b>	<b>(1,054)</b>	<b>(1,026)</b>	<b>(11,980)</b>	<b>(11,154)</b>	<b>(11,099)</b>	<b>(11,025)</b>	<b>(10,196)</b>	<b>(8,796)</b>

<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.

<sup>3</sup>FY 2003 = 7/1/2002–6/30/2003.

SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services

**Exhibit 3. Proportion of Admissions to State-Funded Treatment Programs, by Drug Used in the Past Month in Greater Boston and the Remainder of Massachusetts<sup>1</sup>: FY 1995–FY 2003<sup>2</sup>**

Drug Used Past Month	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003 <sup>3</sup>
Greater Boston									
Alcohol	59	58	60	58	59	58	56	52	50
Heroin/other opiates	28	29	28	32	34	35	39	42	45
Cocaine/crack	40	37	34	29	30	28	25	24	24
Marijuana	16	16	16	14	14	13	13	11	11
Other <sup>4</sup>	7	8	8	9	9	10	10	10	11
<b>Total (N)</b>	<b>(23,282)</b>	<b>(24,363)</b>	<b>(25,470)</b>	<b>(26,505)</b>	<b>(24,653)</b>	<b>(24,478)</b>	<b>(25,269)</b>	<b>(25,586)</b>	<b>(24,251)</b>
Remainder of Massachusetts									
Alcohol	60	60	59	57	56	54	51	50	47
Heroin/other opiates	23	25	25	29	31	33	34	34	35
Cocaine/crack	26	25	22	20	21	20	19	19	19
Marijuana	16	18	17	18	18	17	16	15	15
Other <sup>4</sup>	10	10	10	10	10	11	11	11	11
<b>Total (N)</b>	<b>(76,414)</b>	<b>(73,801)</b>	<b>(77,673)</b>	<b>(86,297)</b>	<b>(87,848)</b>	<b>(90,919)</b>	<b>(91,852)</b>	<b>(95,249)</b>	<b>(87,957)</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.

<sup>3</sup> FY 2003 = 7/1/2002–3/31/2003.

<sup>4</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

**Exhibit 4. Boston Police Department Arrests By Substance<sup>1</sup>: 1997–2002**

Drug Class	1997		1998		1999		2000		2001		2002	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
A	1,392	22.7	1,061	22.5	984	24.0	1,022	27.1	905	26.4	947	22.5
B	2,918	47.5	2,225	47.1	1,847	45.1	1,532	40.6	1,428	41.7	1,762	41.9
D	1,617	26.3	1,211	25.6	1,133	27.7	1,093	29.0	982	28.7	1,375	32.7
Other	216	3.5	226	4.8	133	3.3	123	3.3	111	3.2	125	3.0
<b>Total Drug Arrests</b>	<b>6,143</b>		<b>4,723</b>		<b>4,097</b>		<b>3,770</b>		<b>3,426</b>		<b>4,209</b>	
<b>Total Arrests</b>	<b>27,843</b>		<b>25,481</b>		<b>23,592</b>		<b>22,216</b>		<b>20,470</b>		<b>21,025</b>	
<b>Drug Percentage of Total Arrests</b>		<b>23.7</b>		<b>18.5</b>		<b>17.4</b>		<b>17.0</b>		<b>16.7</b>		<b>20.0</b>

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

SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services

**Exhibit 5. Street Prices, Purity, and Availability for Selected Drugs in Boston: November 2003**

Drug	Price	Purity	Availability
Cocaine Powder	\$50–\$90 per gram	Decreasing	Steady, available
Crack	\$10–\$20 per rock		
Heroin	\$75–\$100 per gram \$60–\$100 per bundle \$6–\$20 per bag	High	Readily
Marijuana	\$5 per joint \$200–\$250 per ounce \$800–\$1,500 per pound	Commercial grade	Readily
Methamphetamine	\$200 per gram	Unknown	Limited quantities
MDMA (Ecstasy)	\$20–\$25 per tablet		High (clubs and colleges)
OxyContin	\$1 per milligram		
LSD	\$5 per dose		
Ketamine	\$50–\$75 per vial		
GHB	\$5 per capful		

SOURCES: New England Field Division, Drug Enforcement Administration (DEA) as of November 2003  
Narcotics Digest Weekly, Vol. 2, 28, National Drug Intelligence Center, Department of Justice, July 15, 2003

**Exhibit 6. Trends in HIV and AIDS Cases in Boston<sup>1</sup>, by Risk Factor and Year of Diagnosis<sup>2</sup>**

HIV<sup>3</sup>

Risk Category	1998		1999		2000		2001		2002		TOTAL <sup>4</sup>	
	N	%	N	%	N	%	N	%	N	%	N	%
MSM	576	51.8	72	42.6	80	45.7	83	48.0	85	49.1	952	49.8
IDU	246	22.1	28	16.6	25	14.3	20	11.6	17	9.8	342	17.9
MSM/IDU	54	4.9	5	3.0	2	1.1	3	1.7	6	3.5	72	3.8
Recipient of Blood/Products	3	0.3	2	1.2	1	0.6	0	0.0	0	0.0	6	0.3
Heterosexual	88	7.9	25	14.8	17	9.7	15	8.7	23	12.8	180	9.4
Sex with IDU	41	3.7	6	3.6	6	3.4	5	2.9	7	4.0	72	3.8
Sex with bisexual male	2	0.2	2	1.2	0	0.0	1	0.6	0	0.0	5	0.3
Sex with blood product recipient	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Sex with HIV/AIDS-positive partner	44	4.0	17	10.1	11	6.3	9	5.2	16	9.2	102	5.3
Undetermined/Other	144	13.0	37	21.9	50	28.6	52	30.1	48	26.8	360	18.8
Presumed heterosexual (unknown risk of partner) <sup>5</sup>	109	9.8	28	16.6	39	22.3	37	21.4	37	21.4	268	14.0
Undetermined/other <sup>6</sup>	35	3.2	9	5.3	11	6.3	15	8.7	11	6.4	92	4.8
Pediatric	N/A		N/A		N/A		N/A		N/A		N/A	
<b>TOTAL</b>	<b>1,111</b>	<b>58.1</b>	<b>169</b>	<b>8.8</b>	<b>175</b>	<b>9.2</b>	<b>173</b>	<b>9.0</b>	<b>179</b>	<b>9.4</b>	<b>1,912</b>	<b>100.0</b>

AIDS

Risk Category	<=1994		1995		1996		1997		1998		1999		2000		2001		2002		TOTAL <sup>4</sup>	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	2018	53.1	165	41.1	123	38.8	86	35.8	99	34.0	71	34.5	58	29.7	49	32.2	55	32.5	2,744	47.0
IDU	963	25.3	115	28.7	90	28.4	66	27.5	76	26.1	57	27.7	44	22.6	36	23.7	37	21.9	1,496	25.6
MSM/IDU	157	4.1	26	6.5	7	2.2	4	1.7	6	2.1	5	2.4	3	1.5	8	5.3	3	1.8	222	3.8
Recipient of Blood/Products	59	1.6	4	1.0	5	1.6	3	1.3	5	1.7	2	1.0	0	0.0	1	0.7	1	0.6	80	1.4
Heterosexual	238	6.3	47	11.7	49	15.5	45	18.8	36	12.4	24	11.7	31	15.9	14	9.2	30	17.8	524	9.0
Sex with IDU	120	3.2	16	4.0	14	4.4	12	5.0	11	3.8	6	2.9	12	6.2	2	1.3	10	5.9	206	3.5
Sex with bisexual male	4	0.1	0	0.0	0	0.0	1	0.4	0	0.0	0	0.0	1	0.5	0	0.0	1	0.6	7	0.1
Sex with blood product recipient	2	0.1	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.6	4	0.1
Sex with HIV/AIDS-positive partner	112	2.9	31	7.7	34	10.7	32	13.3	25	8.6	18	8.7	18	9.2	12	7.9	18	10.7	307	5.3
Undetermined/Other	315	8.3	41	10.2	38	12.0	36	15.0	68	23.4	47	22.8	58	29.7	44	28.9	42	24.9	714	12.2
Presumed heterosexual (unknown risk of partner) <sup>5</sup>	214	5.6	25	6.2	23	7.3	22	9.2	54	18.6	43	20.9	47	24.1	35	23.0	34	20.1	517	8.8
Undetermined/other <sup>6</sup>	101	2.7	16	4.0	15	4.7	14	5.8	14	4.8	4	1.9	11	5.6	9	5.9	8	4.7	197	3.4
Pediatric	51	1.3	3	0.7	5	1.6	0	0.0	1	0.3	0	0.0	1	0.5	0	0.0	1	0.6	62	1.1
<b>TOTAL</b>	<b>3,801</b>	<b>65.1</b>	<b>401</b>	<b>6.9</b>	<b>317</b>	<b>5.4</b>	<b>240</b>	<b>4.1</b>	<b>291</b>	<b>5.0</b>	<b>206</b>	<b>3.5</b>	<b>195</b>	<b>3.3</b>	<b>152</b>	<b>2.6</b>	<b>169</b>	<b>2.9</b>	<b>5,842</b>	<b>100.0</b>

<sup>1</sup>Boston cases do not include prisoners.  
<sup>2</sup>Cumulative cases reported as of 11/01/2003.  
<sup>3</sup>HIV data reflect only those individuals reported with HIV infection who have not yet progressed to an AIDS diagnosis.  
<sup>4</sup>Row totals include cases diagnosed in 2003.  
<sup>5</sup>Risk of partner unknown and primary risks denied; definition revised 7/1/99.  
<sup>6</sup>Includes those still being followed up for risk information, those who have died with no determined risk, those lost to follow-up, and one person with confirmed occupational exposure.  
 SOURCE: Department of Public Health, AIDS Surveillance Program

# Patterns and Trends of Drug Abuse in Chicago

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## ABSTRACT

*Heroin ED mentions stabilized at high levels and treatment admissions increased, indicating continued high levels of heroin use in Chicago during 2002 and 2003. The rate for heroin ED mentions in 2002 was the highest among the 21 DAWN metropolitan areas. After a decrease in street heroin purity in 1997, purity levels remained around 20 percent between 2000 and 2002. Many cocaine indicators remained the highest for all substances except alcohol. Cocaine-related treatment admissions increased between FYs 2002 and 2003 by 20 percent, and increases in use among students enrolled in the Chicago public schools, especially among eighth graders, were observed in 2002. High levels of marijuana use, alone and in combination with other drugs, continued to be reported. While marijuana ED mentions declined between 2001 and 2002, marijuana treatment admissions increased between FYs 2002 and 2003. Between 1998 and 2002, lifetime and past-month marijuana use steadily decreased among 8th through 12th grade students. MDMA (ecstasy) ED mentions decreased 60 percent between 2000 and 2002, and they continued to be reported most by White youth. LSD and PCP indicators suggest a downward trend in use. Methamphetamine indicators continued to show low levels of use in Chicago, though use may be higher in downstate Illinois.*

## INTRODUCTION

### Area Description

The 2000 U.S. census estimated the population of Chicago at 2.9 million, Cook County (which includes Chicago) at 5.4 million, and the metropolitan statistical area (MSA) at slightly more than 8 million (ranking third in the Nation). The city population declined 4 percent between 1970 and 1980 and another 7 percent in the 1980s. Based on 2000 census data, the city population increased about 4 percent between 1990 and 2000. The number of Hispanics living in Chicago increased 38 percent during this period, while the number of Whites and African-Americans declined by 14 and 2 percent, respectively.

According to 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.

### Data Sources

Most of this analysis highlights developments over the past few years, but in some instances a broader timeframe is used to reveal long-term trends. This paper is based on the most recent data available from the various sources detailed below:

- **Drug-related mortality data** were derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), mortality system for 1998–2001. The DAWN system covered 56 percent of the MSA jurisdictions and 92 percent of the MSA population in 2000. Data on pediatric toxicity were available from the Illinois Department of Public Health (IDPH) Adverse Pregnancy Outcome Reporting System (APORS) reports through 2001. Data on deaths related to accidental drug poisonings are available in the June 2003 Chicago CEWG report.
- **Emergency department (ED) drug mentions data** were provided by DAWN, OAS, SAMHSA, for 1994 through 2002. The 2000 ED data were unavailable for methamphetamine.
- **Treatment data** were provided by the Illinois Office of Alcoholism and Substance Abuse (OASA) and include admissions data for the State of Illinois for fiscal years (FYs) 1999–2003 (July 1–June 30). Biannual data were unavailable for FY 2003.
- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for adult male arrestees for 2000 through 2002 and for the first quarter of 2003.
- **Price and purity data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), for heroin for 1991–2002; the data are preliminary and subject to updating. Price and purity data on drug samples analyzed

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through September 2003 were provided by the Illinois State Police (ISP), Division of Forensic Science. The Illinois Criminal Justice Information Authority (ICJIA) (using data from the Illinois State Police) provided analysis of methamphetamine lab seizures in Illinois between 2001 and 2002. Data on drug availability, demand, production, cultivation, and distribution for the State of Illinois were available from the Illinois Drug Threat Assessment, National Drug Intelligence Center, U.S. Department of Justice, in a report published in January 2001 (2001-SO382IL-001) and in the most recent update published in May 2002 (2002-SO382IL-001). The National Drug Threat Assessment reports for 2002 (2002-Q0317-001) and 2003 (2003-Q0317-001) were also reviewed. Data on drug seizures and arrests were taken from the Drugs and Drug Abuse State Factsheet for Illinois provided by the DEA. Ethnographic data on drug availability, price, 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. OASA provided data from a statewide household survey to determine need for alcohol and other drug treatment services, funded by the Center for Substance Abuse, as well as data from Illinois Youth Surveys among 8th through 12th grade students between 1990 and 2002 (biannual reports). (The 2000 and 2002 surveys do not include figures for heroin or methamphetamine use.) Information on student drug use reported in the Monitoring the Future Study and the Chicago Youth Risk Behavior Survey is available in the June 2003 Chicago CEWG report.
- **Most recent drug use estimates** were derived from two currently ongoing studies of young heroin users in metropolitan Chicago conducted by COIP at UIC School of Public Health. Collaborative Injection Drug Users Study/Drug User Intervention Trial (CIDUSIII/DUIT) is a CDC-funded study that evaluates drug and sexual practices associated with human immunodeficiency virus (HIV) and hepatitis C (HCV) infection among current injection drug users age 15–30 ( $n=627$  as of September 2003). 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 HCV infections

( $n=451$  as of November 2003).

- **Acquired immunodeficiency syndrome (AIDS) and HIV data** were derived from both agency sources and UIC studies. IDPH and CDPH surveys provided statistics on AIDS and HIV through November 2001. CDC's "HIV/AIDS Surveillance Report," December 2001, provided additional data on HIV and AIDS. The agency data are complemented by UIC's studies of injection drug users (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). Sources have not been updated since the Chicago CEWG December 2002 report.

Some 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. The latest DAWN data show that 18 percent of all reported ED drug mentions in Chicago between July and December 2002 were alcohol—in-combination mentions, similar to previous reporting periods for Chicago and comparable to proportions in nationwide reports.

As noted in the June 2003 Chicago CEWG report, DAWN medical examiner (ME) data showed that drug-related mortality for Chicago's greater six-county region remained relatively stable from 1999 to 2001. The total number of drug abuse-related deaths reported to DAWN ME sites in 2001 was 854, compared with 869 in 2000 and 878 in 1999.

## Cocaine/Crack

In this reporting period, the majority of quantitative cocaine indicators varied, but they suggested that use has remained stable at high levels and that cocaine continues to represent a serious drug problem in Chicago and Illinois.

Of the 854 total drug abuse deaths reported by the DAWN ME in 2001, 60 percent had a mention of cocaine. Thus, cocaine was a factor in more deaths in the Chicago area than any other illicit drug. The June 2003 Chicago CEWG report provides a more complete description of DAWN ME data.

Cocaine ED mentions peaked at 14,373 in 1997 and remained relatively stable until 2001, when mentions increased to 16,202, an increase from 13,399 mentions in 1999. In 2002, ED mentions remained at high levels, with 16,227 total mentions reported. The total mentions in 2002 reflected a 52-percent increase over 10,702 mentions in 1995.

The rate of mentions per 100,000 population increased from 1999 (225) to 2000 (246) and continued to increase in 2001 (277), a 23-percent change from 1999 (exhibit 1). Rates of ED mentions for 2002 remained level, with a rate of 275 per 100,000 population. Chicago continued to have the most cocaine ED mentions among DAWN sites in 2002 (16,227 mentions) and the highest rate (275 per 100,000 population).

After a slight increase in cocaine ED mentions across nearly every demographic group between 2000 and 2001, cocaine ED mentions remained relatively stable in 2002 among most groups. African-Americans continued to report the highest number of cocaine ED mentions (9,305) in Chicago, followed by Whites (2,196) and Hispanics (1,936). (Race/ethnicity was unknown for 2,767 of the 16,227 cocaine ED mentions.) Males accounted for more cocaine ED mentions (62 percent) than females. Among age categories, those age 35–44 accounted for the highest proportion of total mentions (43 percent) in 2002. Between 2000 and 2002, cocaine mentions decreased 17 percent for those age 26–29 and increased 23 percent for 45–54-year-olds.

The FY 2003 Illinois drug treatment admissions report indicates that cocaine abuse remained the most frequent reason for entering treatment (excluding primary alcohol-only abuse) (exhibit 2). A total of 33,386 cocaine-related admissions to treatment were

reported in Illinois in FY 2003, which reflected a 20-percent increase from 28,131 in 2002. Between 2002 and 2003, the proportion of cocaine-related admissions remained relatively stable for all demographic groups. In FY 2003, African-Americans continued to make up the largest proportion of total admissions (62 percent). Males accounted for more admissions (58 percent) than females. Smoking continued to be the most common route of cocaine administration (85 percent) among treatment admissions in FY 2003.

According to the ADAM report for the first quarter of 2003, 54 percent of adult male arrestees tested cocaine-positive (exhibit 3). This is a 13-percent increase from 2002 and the highest proportion since 1997.

Cocaine use appears common among heroin users in Chicago. In an ongoing study of non-injecting heroin users (NIHU Study), 69 percent of participants reported ever using powder cocaine, and 31 percent used it in the past 6 months. Crack cocaine use was reported more often (70 percent), and 55 percent reported using crack in the past 6 months. Among injecting heroin users (CIDUSIII/DUIT study), use of cocaine or freebase cocaine in the 3 months prior to interview was reported by 62 percent of study participants.

According to IDPH's Adverse Pregnancy Outcome Reporting System, 412 children were exposed to cocaine at birth during the year 2001, which corresponds to a rate of 83.1 per 10,000 live births in Chicago. Between 1999 and 2001, the rate of cocaine exposure at birth decreased by 16 percent. The highest proportion of such births occurred among African-American mothers (approximately 86 percent) and to mothers between 30 and 34 years of age.

There were too few cocaine exhibits reported by ISP in 2002 to make a reasonable comparison with earlier data, and no cocaine exhibits were reported in 2003 (through September 2003). As noted in the June 2003 Chicago CEWG report, the DEA reported 61,594 kilograms in cocaine seizures in the State of Illinois in 2002, which was an increase from 59,426 kilograms in seizures in 2001 and the largest amount since 1994. The June 2003 CEWG report includes information on drug seizures and ISP crime lab data for 1991–2001.

Cocaine prices were not updated for this report. For the June 2003 report, ounce prices for powder cocaine were reported 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. Compared with reports 5 and 10 years ago, ounce prices were somewhat lower, gram prices were about the same or slightly higher, and bag prices were unchanged (unadjusted for inflation). The June 2003 report contains more detailed information about drug prices in Chicago.

According to the 2002 Illinois Youth Survey, the proportion of lifetime cocaine/crack use among Chicago-area 8th through 12th grade students remained level at about 5 percent between 1998 and 2002. Significant increases in cocaine/crack use in the past month between 2000 and 2002 were reported for eighth grade students, African-Americans, Hispanics, the Cook county sample, and students enrolled in Chicago public schools. The highest increase occurred among Hispanic students, from 1.0 percent reporting past-month use in 2000 to 3.7 percent reporting past-month use in 2002.

## Heroin

Heroin abuse indicators in this reporting period reveal that heroin continues to be a significant problem in Chicago.

As noted in the June 2003 Chicago CEWG report, 352 heroin deaths were reported for 2001 by the DAWN ME. This was a 29-percent decrease from 2000, when 499 deaths were recorded. Of the 854 total drug abuse deaths in 2001, 41 percent had a mention of heroin.

The rate of heroin/morphine ED mentions in Chicago increased significantly from 83 per 100,000 population in 1995 to 220 in 2002 (exhibit 1), an increase of 167 percent. This rate was the highest in the contiguous United States. The number of heroin ED mentions nearly tripled between 1995 (4,702) and 2002 (12,982), representing a 176-percent change.

Within Chicago, heroin ED mentions in 2002 were highest among African-Americans (7,886), followed by Whites (1,933) and Hispanics (1,794); all were stable compared with in 2001. Males accounted for the most mentions (57 percent). Between 2001 and 2002, mentions decreased 40 percent for the 12–17 age category and increased 44 percent for those age 55 and older.

The number of heroin admissions to State-supported treatment programs in FY 2003 was 26,935, an increase of 23 percent from FY 2002 (exhibit 2). The proportion of heroin admissions who reported intranasal “snorting” as their primary route of administration

remained high and increased slightly, from 68 to 70 percent between FYs 2001 and 2002, and it continued to increase to 73 percent in FY 2003. During FY 2003, inhaling heroin was more common among African-American admissions, while White patients were almost equally as likely to inhale or inject.

Between FYs 2002 and 2003, heroin-related admissions were stable across all demographic groups. African-Americans accounted for most of the admissions (67 percent), followed by Whites (23 percent) and Hispanics (7 percent); admissions were more prevalent among males (56 percent) than females.

ADAM data for the first quarter of 2003 suggest that the proportion of male arrestees positive for opiates remained level at 24 percent, compared with 26 percent in 2002 (exhibit 3).

In the NIHU Study, 22 percent of participants reported using crack cocaine with heroin at least half the time in the 30 days prior to their interview. Along with ethnographic reports, these data suggest that heroin is used by some to temper the effects of crack cocaine. Some participants also reported using cocaine to counter the effects of heroin.

According to the 2002 DMP report, availability of heroin in Chicago, especially South Asian heroin, continued to increase during 2002. Heroin from other geographic source areas, such as Southeast and Southwest Asia, was also available. The quality of street-level heroin steadily increased, from an average purity of approximately 10 percent in 1991 to 31 percent in 1997. Since then, heroin purity declined. In 2002, South Asian heroin exhibits purchased by DMP in Chicago averaged 20.4 percent pure; the Southeast Asian heroin exhibits averaged 20.8 percent pure; and the Southwest Asian exhibits averaged 19.8 percent pure. The average prices per milligram pure remained relatively low at \$0.43, \$0.71, and \$0.39, respectively, for South, Southeast, and Southwest Asian heroin.

Participants in a study of young non-injecting heroin users reported high availability of heroin on the streets of Chicago. Sixty-four 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 28 percent of participants. Most (82 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”); 29 percent thought the quality was “good”; and most, 51 percent, perceived the heroin quality as “fair.”



Heroin prices were not updated for this report. For the June 2003 report, it was reported that on the street heroin commonly is sold in \$10 and \$20 units (bags), though \$5 bags were also 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. Data indicated that buyers on the West Side could obtain 12 \$10 bags for \$100 (sometimes called a “jab”). Sunday sales of two bags for the price of one were also reported. More detailed price information is available in the June 2003 Chicago CEWG report.

Among Illinois high school students, increases in heroin use have not yet been evidenced in periodic representative surveys. The Illinois Youth Survey indicates that heroin use among Chicago-area students is still relatively rare, although the most recent data for 2000 and 2002 were not available. Results from surveys conducted between 1990 and 1997 found that 1.3–1.5 percent of high school students reported past-year use.

APORS data indicated that opioid toxicity remained stable between 1999 and 2001 among infants who were tested for controlled substances. In 1999, 92 children tested positive for opiates, which corresponds to a rate of 18.2 per 10,000 live births. The rate increased slightly in 2000 to 22.4, but it decreased to 18.8 in 2001. In 2001, and similarly in 1999 and 2000, most infants who tested positive to heroin exposure at birth were born to African-American mothers (80 percent) and to mothers age 30–34.

### Other Opiates

Hydromorphone (Dilaudid), the pharmaceutical opiate once preferred by many Chicago IDUs, continued to be available, although in limited quantities (typical sources are said to be cancer patients). There were only 10 hydromorphone ED mentions in Chicago in 2002. The drug sells for approximately \$25 per tablet. Street sales of methadone are more common, with the drug typically costing \$1 per milligram.

Codeine ED mentions steadily increased since 1995 and peaked in 2000, with 83 total mentions reported. In 2001, total mentions decreased slightly to 79 and continued to decrease in 2002 to 51 mentions; these changes were not statistically significant. In 2001, 43 codeine-related deaths were reported from sentinel

DAWN ME sites in the 6-county Chicago area, a 51-percent decrease from the previous year. Codeine syrup is reported to sell for about \$30 for 4 ounces. Codeine is often used by heroin users to moderate withdrawal symptoms or to help kick a drug habit.

Acetaminophen-codeine ED mentions decreased significantly from 159 in 1995 to 76 in 2002, a 52-percent decrease. On the street, acetaminophen-codeine pills sell for \$1.00–\$3.50 each, although lower if bought in quantities of 10 or more.

Hydrocodone/combination ED mentions increased between 1995 (152) and 2002 (330), a change of 117 percent. ED mentions remained level between 2001 (339) and 2002. Methadone ED mentions also increased significantly between 1995 (90) and 2002 (335). In 2002, methadone mentions decreased (non-significant change) from the previous year, from 355 to 335. Oxycodone and oxycodone/combinations ED mentions increased significantly between 2000 and 2002, but they remained relatively low, with 72 and 80 mentions, respectively, reported in 2002. Oxycodone ED mentions also increased significantly between 2001 and 2002, from 37 to 72 mentions, a change of 95 percent. Reports of OxyContin use remain uncommon.

The occasional use of other opiates is common among young non-injecting heroin users in Chicago. Fifty-nine percent of NIHU Study participants reported ever trying codeine, Tylenol 3 and 4, Dilaudid, Demerol, morphine, or methadone without a legal prescription. Twenty-five percent of young IDUs reported street methadone use in the 3 months prior to interview.

Because of a change in the reporting of other opioids in FY 2003, treatment admission data cannot be compared to the previous years. Treatment admissions related to the use of other opioids or tranquilizers accounted for 2 percent of total admissions (excluding alcohol). Other opioid and tranquilizer use was slightly more common among females (54 percent), and Whites accounted for more admissions (64 percent) in this drug category than any other race/ethnicity. The highest proportion of patients admitted for drug treatment administered other opioids and tranquilizers orally (50 percent). Thirty percent admitted to inhaling these drugs, and 12 percent inject.

### Marijuana

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

In DAWN mortality data, marijuana was mentioned in 2 percent of drug-related deaths reported in 2001.

The number of marijuana ED mentions increased significantly by 57 percent between 1995 (2,922) and 2002 (4,588). More recently, however, marijuana mentions decreased between 2001 (5,186) and 2002 by 12 percent. The rate of marijuana ED mentions per 100,000 population was 89 for both 2000 and 2001 and decreased to 78 per 100,000 in 2002 (exhibit 1), a change of 12 percent from 2001.

The number of marijuana ED mentions in Chicago decreased for most gender, race/ethnicity, and age categories between 2001 and 2002. Marijuana mentions remained higher for males (66 percent) and for African-Americans (35 percent), although the gap between African-American and White patients decreased since 1999. Significant decreases in mentions were observed for the 26–34 and 35–44 age categories between 2001 and 2002.

Marijuana users represented 19 percent of all treatment admissions in Illinois in FY 2003 and 28 percent of admissions when those for primary alcohol abuse were excluded; these proportions are the same as in FY 2002. Total marijuana admissions increased from 20,773 in FY 2000, to 25,626 in FY 2001, to 26,371 in FY 2002, and to 32,060 in FY 2003 (exhibit 2).

Between FYs 2002 and 2003, marijuana-related treatment admissions remained stable among all demographic groups. Admissions were highest for males (77 percent) and for Whites (47 percent) in FY 2003.

According to 2002 ADAM data, 49 percent of adult male arrestees tested positive for marijuana (exhibit 3). Data for adult males for the first quarter of 2003 suggest a stable trend, with 51 percent testing marijuana-positive.

According to APORS, cannabis toxicity in children at birth increased from 28 in 1999 to 73 cases in 2000. It continued to increase in 2001, with 112 children testing positive, a rate of 23 per 10,000 live births. The majority of these infants were born to African-American mothers (88 percent) and to mothers between 20 and 24 years old.

Marijuana use was common among the participants in the young non-injecting heroin users study and young injectors in other studies. Sixty-six percent of non-injecting heroin users and 69 percent of young injectors smoked marijuana in the 3–6 months prior to their interview.

The 2002 Illinois Youth Survey indicated that lifetime use of marijuana among 8th through 12th grade students decreased. In 1998, the survey reported that 41 percent of youths reported lifetime use of marijuana, compared with 36 percent in 2000 and 33 percent in 2002. This decrease was observed among all grades and in both male and female students.

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, which have not been updated since the June 2003 report, ranged from \$650 to \$4,000 per pound, depending on the type and quality. Ounces typically sold for about \$80–\$200. On the street, marijuana was most often sold in bags for \$5–\$20 or as blunts.

### Stimulants

Methamphetamine (“speed”) use in Chicago remains low, but it is more prevalent in many downstate counties.

Until 1999, ED figures for methamphetamine had been slowly increasing during the 1990s in Chicago. In 1999, ED mentions numbered 22, down from a high of 31 in 1998. Data on methamphetamine ED mentions in Chicago were not available for 2000. The number of ED mentions remained stable between 2001 and 2002, when they totaled 45 and 42, respectively. However, the number of mentions declined significantly between the first and second halves of 2002, from 33 to 8, a 76-percent change. The rate of mentions per 100,000 population was 1 during both 2001 and 2002.

Amphetamine ED mentions increased significantly between 1995 (144) and 2002 (415). The rate of amphetamine ED mentions per 100,000 population increased significantly between 1995 (3) and 2002 (7) (exhibit 1).

Stimulants accounted for nearly 4 percent of all State treatment admissions (excluding primary abuse of alcohol only) in FYs 2001 and 2002, up from 2 percent in FY 2000. Total stimulant admissions dramatically increased from 1,270 in FY 2000 to 3,771 in FY 2001; however, admissions decreased 15 percent to 3,190 in 2002 (exhibit 2). In FY 2003, OASA began reporting methamphetamine and amphetamine treatment admissions separately. These data indicate that treatment admissions for methamphetamine (3,582 admissions) were more frequent than those for amphetamines (476). Most methamphetamine admissions were among White clients (97 percent)

and males (58 percent); a similar trend was observed for amphetamine admissions (87 and 56 percent, respectively).

According to 2002 ADAM data, only 0.3 percent of male arrestees in Chicago tested positive for methamphetamine, but 1.0 percent tested positive during the first quarter of 2003, suggesting a recent increase.

Data from the ISP indicated that in 2003 (through September), more methamphetamine was seized than cocaine or heroin in nearly 50 percent of Illinois counties. As noted in the June 2003 report, the most recent report from ICJIA indicated a nearly 40-percent decrease in the number of methamphetamine labs seized in Illinois between 2001 ( $n=666$ ) and 2002 (403). This decrease was concentrated in just six counties, however, and it is unknown whether it reflects changes in law enforcement resources and strategies or actual declines in the number of labs. In 2001, one lab was seized in metropolitan Chicago; none was seized in 2002.

Within Chicago, a low but stable prevalence of methamphetamine use has been reported in some areas of the city in the past 3 years, especially on the North Side, where young gay men, homeless youth, and White club goers congregate. Of note, ethnographic data suggest that methamphetamine availability has increased since June 2001 among at least some networks of gay White men on the North Side. However, the use of methamphetamine is not confined to these groups and seems more likely to occur among drug-using youth who travel beyond metropolitan Chicago to areas where methamphetamine is readily available. In the NIHU Study, 19 percent of participants reported ever trying amphetamine or methamphetamine.

Methylphenidate (Ritalin) remained readily available in some South Side neighborhoods, where it could be purchased for injection, either alone or in combination with heroin. Pills, often referred to as “beans” in these areas, are sold for \$1.50 to \$5.00 each, depending on the quantity being purchased.

Methamphetamine prices were not updated for this report. In June 2003, it was reported that bags of methamphetamine sold for \$20. Most drug users reported that the drug remained difficult to obtain. However, police and street reports suggest that some Mexico-based drug dealers are attempting to introduce methamphetamine for local consumption by offering free samples, which may eventually change the low and stable trend of methamphetamine use in Chicago.

## Depressants

Three patterns of depressant-in-combination use have been common in Chicago and throughout Illinois for the past several years:

- Depressants are taken with narcotics to potentiate the effect of opiates. Pharmaceutical depressants are frequently combined with heroin.
- Depressants are 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).
- Alcohol, also a central nervous system depressant, is taken with pharmaceutical depressants (such as hypnotics or tranquilizers). The practice of mixing alcohol with other depressants may indicate illicit pharmaceutical depressant use.

The number of barbiturate ED mentions totaled 404 in 2002, compared with the peak of 525 mentions in 1997.

Benzodiazepine ED mentions increased significantly between 1995 (1,959) and 2002 (2,776), a 42-percent change. Alprazolam (Xanax) ED mentions were relatively stable between 1995 (331) and 2002 (300); alprazolam was the most often mentioned benzodiazepine. Clonazepam (Klonopin) was the second most often mentioned benzodiazepine in 2002 (227), followed by lorazepam (Ativan) (196), and diazepam (Valium) (148). Consistent with ED mentions, ethnographic reports indicate that alprazolam appears to be the benzodiazepine most readily available on the street, closely followed by clonazepam and lorazepam, with variations in different areas of the city.

Treatment admissions data for other opioids, tranquilizers, and sedatives/hypnotics suggest that depressants are not the primary drugs of choice for most users. Treatment admissions in this category decreased 14 percent from 2,019 in FY 2001 to 1,727 in FY 2002, and increased 48 percent to 2,564 in FY 2003. The increase in admissions between FYs 2002 and 2003 may reflect a change in reporting during this period. Primary opioid, tranquilizer, and sedative/hypnotics users represented only about 1.5 percent of all treatment admissions, excluding alcohol.

According to APORS, the rate of infants testing positive for barbiturates was 1.4 per 10,000 live births for both 1999 and 2000 and decreased to 0.8 per 10,000 in 2001.

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.

### Hallucinogens

Recent declines in lysergic acid diethylamide (LSD) ED mentions suggest a downward trend in LSD use in Chicago. In 2002, 21 mentions were reported, compared with 69 mentions in 2001 (a 70-percent decline) and 115 mentions in 2000 (an 82-percent decline). Between 1995 and 2002, LSD ED mentions declined by 92 percent. The rate of LSD ED mentions per 100,000 population was less than 1 in 2002 for the first time in the past 7 years and reflected a 93-percent decline from the rate of 5 per 100,000 in 1995.

As observed with LSD, phencyclidine (PCP) ED data showed declines in Chicago. After a peak in 2000 when 1,003 ED mentions were reported, PCP ED mentions decreased to 874 in 2001 and to 459 in 2002. Similarly, ED rates declined between 2001 and 2002 from 15 to 8 (per 100,000), a 48-percent change.

Recent trends in hallucinogen treatment admissions have been uneven, but overall admissions have been relatively high compared with trends earlier in the decade. After an increase in admissions from FY 2000 (517) to FY 2001 (544), admissions decreased 12 percent in FY 2002 (479). Treatment admissions remained level in FY 2003, when 472 total admissions were reported (exhibit 2).

According to the 2002 ADAM report, 2.2 percent of adult male arrestees tested positive for PCP. Data for the first quarter of 2003 suggest steady PCP use in this population, with 2.5 percent of male arrestees testing positive for PCP.

In the study of young non-injecting heroin users, 34 percent of participants reported ever trying LSD, mescaline, mushrooms, or other hallucinogens, but only a few reported use in the 6 months prior to their interview.

Recent reports from young heroin snorters indicate that PCP use may be more common in this population. Fifty-three percent of study participants reported

ever trying PCP, and 13 percent admitted use within 6 months prior to their interview.

According to the 2002 Illinois Youth Survey, 5 percent of students in grades 8 through 12 reported lifetime use of “any hallucinogen” (including LSD and PCP). This is a considerable decrease in use from 2000 (7 percent) and 1998 (8.5 percent). Past-year and past-month use followed a similar downward trend. Past-month hallucinogen use was more common among males in the 1998, 2000, and 2002 surveys, although the gender gap was smaller in 2002 compared with the previous years.

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.

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

### Club Drugs

In the Chicago area, methylenedioxymethamphetamine (MDMA or ecstasy) is the most prominently identified of the club drugs used.

ED mentions for MDMA in Chicago increased significantly between 1995, when only 8 mentions were reported, and 2002, when there were 87 mentions. However, more recently, MDMA mentions declined from their peak of 215 in 2000 to 87 in 2002, a significant 60-percent decline. ED mentions per 100,000 population decreased by 59 percent between 2000 and 2002, from about 4 to 1. Of all the CEWG sites, Chicago had the most MDMA ED mentions in 2000 (215), but ranked 10th in 2002.

Illinois OASA began reporting treatment admissions data related to “club drugs” for the first time in FY 2002, when 50 admissions were reported. In FY 2003,

79 admissions were reported, of which 63 percent were among males and 54 percent were among Whites.

In 2002, the Illinois Youth Survey for the first time included separate questions regarding MDMA use. Lifetime ecstasy use was reported by 0.6 percent of respondents, and past-year use was reported by 0.4 percent. White students reported more lifetime and past-month ecstasy use than either African-American or Hispanic students.

Ecstasy remained available in most mainstream dance clubs and at many house parties, according to ethnographic reports. Street reports suggest that ecstasy—or drugs sold as ecstasy—is widely available among high school and college students. It continued to be sold in pill or capsule form, and the price range remained unchanged from December 2002: \$20–\$40 per pill. Individuals with connections to suppliers or producers reported prices as low as \$12–\$15 per pill. Ecstasy is usually sold at dance clubs, rave parties, house parties, or through individual dealers; it is typically used in social settings. Along with other club drugs, it continues to be used predominantly by White youth, but there have been increasing reports of ecstasy use from low-income African-Americans in their twenties and thirties who have been involved in club scenes. Among participants in the NIHU Study, 33 percent reported MDMA use. Forty percent of young injectors reported using some club drugs, including MDMA, in the 3 months prior to interview.

Gamma hydroxybutyrate (GHB), a central nervous system depressant with hallucinogenic effects, is used infrequently in Chicago, mainly by young White males. Recent ED mentions for GHB decreased 43 percent, from 139 in 2000 to 79 in 2002. GHB ED mentions per 100,000 population were level at 2 for 1999, 2000, and 2001, and decreased to 1 in 2002.

GHB is sold as a liquid, in amounts ranging from drops (from a dropper at raves or parties) to capfuls. Prices for a capful have been reported at \$10–\$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 lower than ecstasy. Ketamine, an animal tranquilizer, is another depressant with hallucinogenic properties and is often referred to as “Special K.” Ketamine ED mentions totaled 10 in 2002, compared with 14 in 2001. The rate of ED mentions per 100,000 population (0.1) also remained unchanged. As reported in the June 2003 Chicago CEWG report, street reports indicate that ketamine is usually sold in \$5–\$30 bags of pow-

der or in liquid form. The drug is somewhat available at rave parties or in clubs frequented by younger adolescents.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Through November 2001, 26,127 diagnosed AIDS cases were reported to the State. More than one-quarter of adult AIDS cases occurred among IDUs, while an additional 6.5 percent involved male IDUs who had sex with other men. Within Illinois, 80 percent of the cumulative AIDS cases reported originate in the Chicago metropolitan area.

HIV cases may represent more recent trends in risk behaviors. From July 1, 1999, through 2001, 5,069 cases of HIV were reported to the State. Of those, 74 percent were in Cook County, with a prevalence of 63 percent urban and 11 percent suburban. Overall, IDUs accounted for 17 percent of cases in Illinois, while 3.5 percent occurred among male IDUs who had sex with other men.

The most recent report on AIDS cases in Chicago indicated that by December 2001, 22,703 AIDS cases were reported to CDC. Gender and demographic data on these AIDS cases are available in the June 2003 Chicago CEWG report.

In Chicago, between 1990 and 2001, IDUs as a proportion of AIDS cases peaked at 33 percent in 1996 and then steadily decreased to 25 percent as of 2001. Only 19 percent of HIV cases reported in 2001 were attributed to injection drug use. Although the proportion of cases among men who have sex with men (MSM) has declined, male-to-male sex remained the predominant mode of transmission for males (at 36 percent overall). Male-to-male sex was a more significant factor among Whites and Hispanics than for African-Americans. Among African-Americans, male AIDS cases were more evenly divided between MSMs and IDUs, at 38 and 32 percent, respectively. African-Americans are the most likely racial group to acquire the disease from injection drug use. Four percent of cases occurred among homosexual or bisexual IDUs. For females recently diagnosed, HIV or AIDS heterosexual contact was the leading mode transmission, with the exception of White women diagnosed with AIDS. AIDS cases among White women were predominantly reported among IDUs.

In 2000, the number of deaths from AIDS declined 13 percent in Illinois and 16 percent in Chicago. Declines were smaller for women and people of color, and they were lowest for IDUs. Given the long laten-

cy between HIV infection and AIDS diagnosis, these figures do not reflect the full scope of the epidemic. Data from the authors' AIDS intervention and CIDUS studies provide additional information on the extent of HIV infection among IDUs. In studies of IDUs cited in previous CEWG reports, HIV prevalence ranged from 18 to 25 percent at baseline with reported incidence rates of 1 to 2 percent per person-year. It should be noted, however, that the studies are not directly comparable, because each had unique sampling and recruitment strategies. More information on HIV and HCV seroprevalence among participants in a 1997-1999 study of 700 young IDUs in Chicago is available in the June 2003 Chicago CEWG report.

In an ongoing study of young IDUs (CIDUSIII/DUIT), injection practices and HCV prevalence were compared between young suburban and urban participants. The overall HCV prevalence was 13.8 percent and it was almost twice as high among urban (19.7 percent) as suburban (10.1 percent) participants. Although HCV prevalence was lower among suburban IDUs in this study, they were significantly more likely to participate in high-risk behaviors of sharing syringes and injection equipment, thus providing greater opportunity for disease transmission (Boodram et al. 2003).

As reported in the June 2003 report, findings suggest that HIV prevalence and the rate of new HIV infections have declined among IDUs in Chicago since peaking in the late 1980s.

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#### REFERENCES

Bailey, S.L.; Huo, D.; Garfein R.S.; and Ouellet,

L.J. Needle exchange as a harm reduction strategy for young injection drug users. *Journal of Acquired Immune Deficiency Syndromes* 34(1):67-70, 2003.

Boodram B.; Bailey S.L.; and Ouellet, L.J. Hepatitis C (HCV) prevalence and injection risk practices among young, predominantly suburban injection drug users (IDUs) in metropolitan Chicago, 2002-2003. Abstract 3325.3. American Public Health Association, 2003.

Johnston, L.D.; O'Malley, P.M.; and Bachman, J.G. *Monitoring the Future: National Survey Results on Drug Use, 1975-2000*. Volume I. (NIH Publication No. 01-4924.) Rockville, MD: National Institute on Drug Abuse, 2001.

Ouellet, L.J.; Thorpe, L.E.; Huo, D.; Bailey, S.L.; Jimenez, A.D.; Johnson, W.A.; Rahimian, A.; and Monterroso, E. Prevalence and incidence of human immunodeficiency virus infection among a cohort of injecting drug users: Chicago, 1994-1996. *Journal of Acquired Immune Deficiency Syndromes* 25(5):443-450, 2000.

Thorpe, L.E.; Ouellet, L.J.; Hershov, R.; Bailey, S.L.; Williams, I.T.; Williamson, J.; Monterroso, E.; and Garfein, R. Risk of hepatitis C virus infection among young adult injection drug users who share injection equipment. *American Journal of Epidemiology* 155(7): 645-653, 2002.

Thorpe, L.E.; Bailey, S.L.; Huo, D.; Monterroso, E.R.; and Ouellet, L.J. Injection-related risk behaviors in young urban and suburban injection drug users in Chicago (1997-1999). *Journal of Acquired Immune Deficiency Syndromes* 27(1):71-8, 2001.

Thorpe, L.E.; Ouellet, L.J.; Levy, J.R.; Williams, I.T.; and Monterroso, E. Hepatitis C virus infection: prevalence and prevention opportunities among young injection drug users in Chicago, 1997-1999. *Journal of Infectious Diseases* 182(6):1588-1594, 2000.

Wiebel, W.W.; Jimenez, A.D.; Johnson, W.A.; Ouellet, L.J.; Jovanovic, B.; Lampinen, T.; Murray, J.; and O'Brien, M.U. Risk behavior and HIV seroincidence among out-of-treatment injection drug users: a four-year prospective study. *Journal of Acquired Immune Deficiency Syndromes* 12: 282-289, 1996.

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**Exhibit 1. Estimated Rates of ED Mentions Per 100,000 Population in Chicago for Selected Drugs: 1995–2002**

Year	Cocaine	Heroin	Marijuana	Methamphetamine	Amphetamines
1995	188	83	51	1	3
1996	220	109	61	0	3
1997	247	148	76	0	4
1998	232	158	85	1	3
1999	225	162	77	0	3
2000	246	206	89	... <sup>1</sup>	6
2001	277	203	89	1	7
2002	275	220	78	1	7

<sup>1</sup>Dots (...) indicate that an estimate with a relative standard of error greater than 50 percent has been suppressed.

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 2. Semiannual Illinois Treatment Admissions to Publicly Funded Programs by Primary Drug of Abuse: FY 2000–FY 2002**

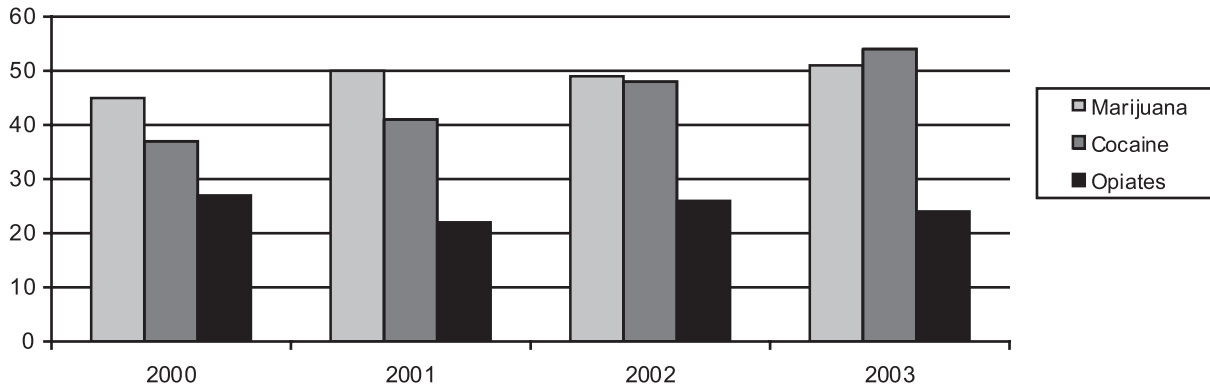
Primary Drug	FY 2000			FY 2001			FY 2002			FY 2003 <sup>1</sup>
	Dec. 1999	June 2000	Total	Dec. 2000	June 2001	Total	Dec. 2001	June 2002	Total	Total
Cocaine	18,531	12,937	31,468	16,967	14,354	31,321	14,581	13,550	28,131	33,836
Heroin	11,733	8,121	19,854	13,745	10,718	24,463	10,747	11,162	21,909	26,935
Cannabinoids	12,484	8,289	20,773	14,253	11,373	25,626	11,811	14,560	26,371	32,060
Hallucinogens	290	227	517	323	221	544	237	242	479	472
Stimulants <sup>2</sup>	577	693	1,270	1,969	1,802	3,771	1,517	1,673	3,190	4,058

<sup>1</sup>Data by half-year not available in FY 2003.

<sup>2</sup>Stimulants include amphetamine and methamphetamine.

SOURCE: Illinois Office of Alcoholism and Substance Abuse

**Exhibit 3. Percentages of ADAM Adult Male Arrestees Testing Positive in Chicago for Selected Drugs by Year: 2000–2003<sup>1</sup>**



<sup>1</sup>Data for 2000 are for the first through third quarters; data for 2001 are for the fourth quarter only. Data for 2003 are based on the first quarter only.

SOURCE: ADAM, NIJ

**Exhibit 4. Heroin Price and Purity Trends in Chicago, by Geographic Origin: 2000–2002**

Trend	2000			2001			2002		
	SEA <sup>1</sup>	SWA <sup>2</sup>	SA <sup>3</sup>	SEA	SWA	SA	SEA	SWA	SA
Purity (%)	16.9	20.2	23.8	20.7	20.8	19.5	20.8	19.8	20.4
Price per milligram pure	\$1.16	\$0.32	\$0.48	\$0.45	\$0.41	\$0.71	\$0.71	\$0.39	\$0.43

<sup>1</sup>Southeast Asia.

<sup>2</sup>Southwest Asia.

<sup>3</sup>South America.

SOURCE: DMP, DEA



# Patterns and Trends in Drug Abuse: Denver and Colorado

Bruce Mendelson, M.P.A.<sup>1</sup>

## ABSTRACT

*Most amphetamine and methamphetamine indicators have increased in the past 2 years. Specifically, methamphetamine treatment admissions reached their highest level ever in the first half of 2003, and amphetamine-related deaths from 1999 through 2002 more than doubled over the prior 4-year period. Also, local treatment clinicians say that some stimulant users have switched from cocaine to methamphetamine because of the price, availability, and longer lasting high. Marijuana continues to be a major problem in Colorado, although most current indicators are stable or decreasing slightly. For example, clients whose primary drug was marijuana constituted the largest proportion of drug-related treatment admissions in the first half of 2003, even though this percentage was down slightly from 2002. Also, marijuana ED mentions, which had increased by 55 percent from 1995 to 2000, stabilized during 2001 and declined in 2002. Conversely, marijuana-related hospital discharges climbed to their highest level in the 1996–2002 period. Cocaine indicators were mixed in the past 2 years. Treatment admissions remained relatively stable, while the proportion of new users in treatment increased slightly from 2002 to the first half of 2003. Also, cocaine-related deaths increased in 2002, as did ED mentions and hospital discharges. However, cocaine treatment admissions declined somewhat. A mixed pattern is also the circumstance for heroin indicators, with hospital discharges, ED mentions, and deaths increasing, ADAM data stable, and treatment admissions and new users were down slightly. There is also some indication of a small but increasing problem with opiates other than heroin (e.g., OxyContin). Finally, limited indicator and treatment data, statistics from the 2002 Colorado Youth Survey, and most anecdotal data point to a continuing club drug problem in Colorado, mostly among adolescents and young adults.*

## INTRODUCTION

### Area Description

Denver, the capital of Colorado, is located somewhat northeast of the State's center. Covering only 111.32

square miles, Denver is bordered by several large suburban counties: Arapahoe to the southeast, Adams to the northeast, Jefferson to the west, and Douglas to the south (Denver PMSA). In recent years, Denver and the surrounding counties have experienced rapid population growth. According to the 1990 census, the Denver primary metropolitan statistical area (PMSA) population was 1,622,980. By the 2000 census, this had grown by 30 percent to 2,109,282. In general, Colorado has been one of the top five fastest growing States in the country, increasing from 3,294,394 in 1990 to 4,324,920 in 2000, or by 31.3 percent. The Denver metropolitan area accounts for a large percentage of Colorado's total population.

Several considerations may influence drug use in Denver and Colorado:

- Two major interstate highways intersect in Denver.
- The area's major international airport is nearly at the midpoint of the continental United States.
- The State's remote rural areas are ideal for the undetected manufacture, cultivation, and transport of illicit drugs.
- A young citizenry is drawn to the recreational lifestyle available in Colorado.
- The large tourism industry draws millions of people to the State each year.
- Several major universities and small colleges are in the area.
- The Colorado unemployment rate was 5.6 percent as of September 2003, which is down slightly from 5.8 percent a year earlier. As for the Denver metropolitan area, the unemployment rate averaged 5.9 percent for the first three quarters of 2003, which is the same as it was this time last year.

### Data Sources

Data presented in this report were collected and analyzed in November and December 2003. Although these indicators reflect trends throughout Colorado,

<sup>1</sup>The author is affiliated with the Alcohol and Drug Abuse Division of Colorado Department of Human Services.

they are dominated by the Denver metropolitan area. The data sources are summarized below:

- **Qualitative and ethnographic data** for this report were available mainly from clinicians from treatment programs across the State, local researchers, and street outreach workers.
- **Drug-related emergency department (ED) mentions** for the Denver PMSA for 1996 through 2002 were provided by the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA).
- **Drug-related mortality data** for the Denver metropolitan area for 1997 through 2001 were provided by SAMHSA through its DAWN mortality system.
- **Hospital discharge data** statewide for 1996-2002 are available from the Colorado Hospital Association through the Colorado Department of Public Health and Environment, Health Statistics Section. Data included are International Classification of Diseases diagnoses (ICD-9-CM codes) for inpatient clients at discharge for all acute care hospitals and some rehabilitation and psychiatric hospitals. These data do not include ED care.
- **Drug treatment data** are from the Drug/Alcohol Coordinated Data System (DACODS); reports are completed on clients at admission and discharge from all Colorado alcohol and drug treatment agencies receiving public monies. Annual figures are given for 1997 through the first half of 2003. DACODS data are collected and analyzed by the Alcohol and Drug Abuse Division (ADAD), Colorado Department of Human Services.
- **Forensic laboratory drug data** are from the National Forensic Laboratory Information System (NFLIS) for October 2002 through September 2003 and represent 4,254 drug items.
- **Availability, price, and distribution data** are available from local Drug Enforcement Administration (DEA) Denver Field Division (DFD) officials in their third quarter fiscal year (FY) 2003 report.
- **Drug seizure data** are from the Federal-wide Drug Seizure System (FDSS), Colorado Drug Threat Assessment, National Drug Intelligence Center (NDIC) for 1998-2001.
- **Death statistics and communicable disease data**

are available from the Colorado Department of Public Health and Environment (CDPHE). Data are presented for 1996-2002.

- **Poison control call data** are from the Rocky Mountain Poison and Drug Center (RMPDC). The data presented are for Colorado. The data represent the number of calls to the center regarding “street drugs” from 1996 through 2002.
- **Arrestee drug testing data** are from the Arrestee Drug Abuse Monitoring (ADAM) program, which reports arrestee urinalysis results based on quarterly studies conducted under the auspices of the National Institute of Justice (NIJ). ADAM data in Colorado are collected and analyzed by the Division of Criminal Justice. In calendar year 2000, NIJ changed its procedures from a convenience to a probability sample for adult males. Thus, no ADAM data trend analysis is presented. Rather, 2001 and 2002 use percentages by drug type are indicated.
- **School survey data** are from the Colorado Youth Survey (CYS), a statewide survey of 6th through 12th graders; questions are organized around risk and protective factors and drug use. The CYs has been conducted in 1998, 2000, and 2002. The 2002 sample included more than 26,000 students.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

Cocaine indicators remained mixed from 2001 through the first half of 2003.

The rate of Denver metropolitan area cocaine ED mentions per 100,000 population increased steadily from 53 in 1996 to 87 in 1999, but declined slightly to only 69 per 100,000 population in 2001 (exhibit 1). However, the rate increased to 82 in 2002, although the increase was not statistically significant.

Statewide hospital discharge data (exhibit 2) showed that cocaine mentions per 100,000 population increased from 59.0 in 1996 to 62.8 in 1998, and remained relatively stable through 2001 (63.2 per 100,000). In 2002, however, the rate of cocaine mentions increased sharply to 73.6.

In 1996, there were 47 calls to the RMPDC concerning cocaine. Calls remained at about this level through 1999 (i.e., 50 calls) and increased slightly to 59 calls in 2000. However, in 2001, cocaine calls

more than doubled to 127, declining only slightly to 115 in 2002.

Conversely, the proportion of cocaine treatment admissions declined overall during the past 6½ years (exhibit 3). In 1997, primary cocaine abuse accounted for 27.1 percent of all drug abuse treatment admissions, compared with only 22.2 percent for the first half of 2003. However, the downward trend reversed very slightly in the past 1½ years, with a 1-percent increase in cocaine admissions from 2001 to 2002, and a 0.5-percent increase from 2002 to the first half of 2003.

Also, despite the decline in total cocaine admissions from 1997 to the first half of 2003, the proportion of “new” cocaine users entering treatment, defined as those admitted to treatment within 3 years of initial cocaine use, has remained relatively level. As shown in exhibit 4, the proportion of new cocaine users increased slightly from 14.0 percent in 1997 to 16.5 percent in 2000, declined to 15.6 percent by the end of 2002, but increased to 16.7 percent during the first half of 2003.

Treatment data indicate that the proportion of cocaine injection admissions remained relatively stable from 1996 (11.0 percent) through the first half of 2003 (10.2 percent). Smoking percentages declined steadily from 67.4 percent in 1996 to 57.9 percent in 2001, but rebounded to 62.1 percent by the first half of 2003. Conversely, inhalation steadily increased from 17.6 percent in 1996 to 25.9 percent in 2001, but declined slightly to 23.4 percent in the first half of 2003.

In general, the race/ethnicity proportions for cocaine treatment admissions have been changing somewhat. Whites accounted for the largest proportion of cocaine admissions in the first half of 2003 (44.6 percent), but this is a small decline from their proportion in 2001 (47.3 percent). The proportion of Hispanic cocaine admissions increased dramatically from only 17.5 percent in 1996 to a high of 28.8 percent in 2000. While this proportion declined to 26.3 percent in 2001, it rose to 2000 levels in 2002 (28.1 percent) and stayed at that level through the first half of 2003 (28.9 percent). Conversely, African-American cocaine admissions were nearly cut in half, dropping from 36.3 percent in 1996 to only 19.7 percent in 2001; however, this proportion increased slightly to 23.2 percent by the first half of 2003.

Likewise, age categories have been changing since 1996. In 1996, 57 percent of cocaine admissions were younger than 35; this decreased to 47 percent in the

first half of 2003. Conversely, the proportion of cocaine admissions age 35 and older has climbed relatively steadily during the same period, from 43 to 53 percent. Cocaine admissions remain predominantly male, with the proportion growing slightly from 1996 (59.6 percent) through the first half of 2003 (62.1 percent).

Cocaine death mentions (single and in combination with other drugs) in the Denver metro area more than doubled from only 56 in 1997 to 126 in 2001. Statewide, cocaine deaths climbed from 102 in 1996 (27 per million) to 146 in 1999 (36 per million). While they declined to 116 in 2000 (27 per million), they increased again to 134 in 2001 (30.4 per million), and to 153 in 2002 (34.1 per million), the highest number of deaths and the second highest rate in the time period indicated.

According to recent ADAM data on samples of Denver arrestees, 35.4 percent of males and 46.5 percent of females had cocaine-positive urine samples in 2001. These numbers were down slightly in 2002, with 32.7 percent of males and 43.6 percent of females testing cocaine-positive.

In the Denver NFLIS data, cocaine represented 50.1 percent of all drug items analyzed.

The Denver Field Division of the DEA reports the substantial availability of cocaine hydrochloride (powder) across the State in ounce, pound, and kilogram quantities. Mexican polydrug trafficking groups control the majority of cocaine distribution in the Denver metropolitan area through Hispanic, White, and African-American distributors. For the most part, cocaine is brought into Colorado in vehicles from the southwest border and southern California on interstate and local highway systems. Kilograms of cocaine are often sold in bricks covered in industrial tape. Smaller amounts of cocaine are usually packaged in zip-lock plastic bags with no special markings. The DEA also indicates that, despite declining use, crack cocaine availability remains stable in Colorado, with supplies continuing to come from street gangs in Los Angeles and Chicago. The crack is transported in passenger vehicles, commercial buses, or airlines from the aforementioned cities. Upper-level crack organizations are primarily Mexican with gang affiliations and are intertwined with African-Americans who control street-level distribution.

Seizure data from the FDSS also show the widespread availability of cocaine in Colorado. According to the recent Colorado Drug Threat Assessment produced by the NDIC, Federal law enforcement officials reported

cocaine seizures in the following quantities: 59.8 kilograms in 1998, 88.6 kilograms in 1999, 132.7 kilograms in 2000, and 69.3 kilograms in 2001.

The DEA reports current cocaine prices as follows: \$16,000–\$19,000 per kilogram and \$700–\$1,000 per ounce in the Denver metropolitan area, with purity in the 50–90 percent range; \$15,000–\$25,000 per kilogram, \$500–\$1,100 per ounce, and \$100–\$125 per gram (50 percent purity) in Colorado Springs (south of Denver on the Front Range); and \$21,000 per kilogram (60 to 70 percent purity) and \$700–\$1,000 per ounce (20 to 60 percent purity) in Grand Junction (Western Slope of Colorado). Crack ounce prices remain relatively stable at \$650–\$1,000, while “rock” prices have increased from \$10–\$20 to \$25–\$50 in Denver.

Reports from clinicians, researchers, and street outreach workers around the State corroborate the continuing cocaine problems reflected in the indicator data. However, some qualitative reports indicate a shift to methamphetamine among some stimulant users. Clinicians in programs in northeast Colorado say that many of the new stimulant users are using methamphetamine rather than cocaine because it is cheaper and provides a “longer high.” On the other hand, many in that part of the State report widespread cocaine availability. In addition, they report that cocaine is not just a “rich man’s drug” anymore and that there is increasing use by lower-income laborers (e.g., meat packing workers) so that they can work longer hours. This has corroborated reports about increased use among Hispanics. For example, treatment programs in southeastern Colorado report increased cocaine use among Hispanics who have a history of family use. Likewise, some treatment programs in the Denver metropolitan area report that Hispanics are “doing what they are bringing in—they’ve always had it now they are using it.”

Programs around the State report some new users, but mostly describe older clients (age 35 and older) entering treatment. In addition, programs across Colorado report cocaine/crack use in combination with other drugs like heroin (“speedballs”) and marijuana (“primos”).

### **Heroin**

For 2001 through 2003, heroin indicators were mixed, with some increasing, some stable, and some declining.

DAWN data show that the rate of heroin ED mentions

per 100,000 population nearly doubled from 1996 (22) to 2000 (41 per 100,000) (exhibit 1). The 2002 rate of 43 heroin mentions per 100,000 represented a significant 9.8-percent increase from 2001, when the rate was 40.

Similarly, hospital discharge data (exhibit 2) indicate that opiate mentions per 100,000 population have climbed steadily from only 19.9 in 1996 to 58.0 in 2002 (a nearly 200-percent increase).

Heroin-related calls to the RMPDC were relatively steady between 1996 (20 calls) and 1998 (22 calls), but increased to 36 in 1999. This was followed by a decline in such calls to only 12 in 2000, an increase to 36 in 2001, and a decline to 19 in 2002.

Among Colorado treatment admissions (exhibit 3), the proportion and number of heroin admissions remained fairly stable from 1997 (13.7 percent) through 2000 (14.5 percent), with a slight decline to 14.0 percent in 2001 and to 12.5 percent during 2002. Data from the first half of 2003 show heroin admissions remaining at about the prior year’s level (12.7 percent). Likewise, the proportion and number of new heroin users entering treatment, after increasing from 16.6 percent in 1997 to 18.7 percent in 2000, declined only slightly to 17.1 percent in 2002 (exhibit 4). Data for the first half of 2003, however, show that only 10.1 percent of heroin admissions were new users. This is the lowest such proportion since the early 1990s.

Like cocaine users, there have also been some changes in the demographics of heroin users entering treatment. The proportion of female heroin admissions has remained relatively stable from 1996 (32.3 percent) through the first half of 2003 (30.6 percent). However, race/ethnicity proportions have changed during this same time period. Whites have increased as a proportion of the total from 57.6 percent in 1996 to 63.6 percent in both 2002 and the first half of 2003. Conversely, from 1996 through 2002, the proportion of Hispanics decreased from 29.4 percent to 22.7 percent. However, in the first half of 2003, the proportion of Hispanic clients rose somewhat to 26.2 percent. Also, the proportion of 25-and-younger heroin admissions increased from only 10.9 percent in 1996 to 17.2 percent in 2002. Interestingly, during the first half of 2003, the proportion of heroin admissions who are 25 and younger declined to only 12.5 percent.

Accompanying the heroin client demographic realignments are small changes in route of administration, with heroin smoking and inhalation becoming more common. In 1996, only 5.9 percent of treatment admis-

sions reportedly smoked or inhaled heroin, compared with 7.5 percent in 1997, 9 percent in 1998, 8.5 percent in 1999, 10.2 percent in 2000, 9.6 percent in 2001, and 11.9 percent in 2002. However, in the first half of 2003, the combined percentage of smokers and inhalers declined slightly to 10.3 percent.

Heroin death mentions (single and in combination with other drugs) in the Denver metropolitan area rose from 53 to 79 from 1997 to 1999, declined to 66 in 2000, and then increased to 77 in 2001. Statewide, opiate-related deaths increased from 128 (33.5 per million population) in 1996 to 182 (45.9 per million) in 1998. From this peak, such deaths declined to 142 (35.2 per million) and 147 (34 per million) in 1999 and 2000, respectively. However, opiate-related deaths climbed to 160 (36.3 per million) in 2001 and 164 (36.5 per million) in 2002.

According to recent ADAM data for a sample of Denver arrestees, in 2001, 5.2 percent of males and only 2.4 percent of females tested positive for opiates. However, in 2002 the reverse was true, with 5.3 percent of females and 4 percent of males testing positive for opiates.

In the NFLIS, heroin represented 5.3 percent of the items analyzed by the forensic laboratory in Denver.

The DEA reports that heroin availability remains stable in the large metropolitan areas of the Denver Field Division. In the Denver metropolitan area, the majority of heroin sales take place in the lower downtown area. Marketing is controlled by Mexican nationals. They also control the street-level heroin market in the form of small autonomous distribution cells. Street-level heroin is usually packaged in balloons, plastic sandwich bags, or tin foil for gram and ounce quantities. Larger seizures have encountered heroin wrapped in wax paper, further contained within foil paper and clear plastic wrap, and then flattened out to fit in hidden compartments.

Street-level heroin is usually sold in grams for \$100–\$150, with ounces costing \$1,500–\$3,000. The DEA Domestic Monitoring Program (DMP) buys for the first three quarters of FY 2002 reveal that the purity of Mexican heroin ranges from 14 to 29 percent (average purity around 20 percent). In Colorado Springs, heroin sells for \$1,800 to \$3,500 per ounce and \$75 to \$300 per gram. The average purity is around 40 percent.

According to recently reported FDSS data in the NDIC Colorado Drug Threat Assessment, Federal law enforcement officials seized 4.9 kilograms of heroin in

1998, 2.0 kilograms in 1999, 4.9 kilograms in 2000, and 1.2 kilograms in 2001.

Reports from clinicians, researchers, and street outreach workers around the State describe both similarities and variation in heroin and other opiate use. In northeast Colorado, clinicians say they do not “see a large number of heroin users,” but they do report a slight increase in inhaled heroin. However, at the same time, they describe increased levels of hepatitis C among heroin injectors. In the southeast and south central parts of the State, programs describe heroin as “easier to get.” For example, the San Luis Valley is considered a major dropping point for drugs from Mexico, including heroin. Clinicians in this part of the State are reporting increases in heroin inhalation and smoking because of clients’ fears of “infectious diseases.” However, they are also reporting some inhalers and smokers switching to injection because the high is “faster and more intense.”

In the Denver metropolitan area, programs are also reporting more White users from suburban areas who are smoking or inhaling heroin because they do not think they can get addicted, and because they are afraid of infectious diseases. However, treatment programs also report some conversion to injecting because of the faster and more intense high.

### Other Opiates

Opiates other than heroin (i.e., narcotic analgesics) include hydrocodone, hydromorphone, codeine, and oxycodone. Denver metropolitan ED mentions per 100,000 population for “narcotic analgesics and combinations” climbed from 22 in 1995 to 34 in 2002 (exhibit 1). Although the 2002 rate is down from the 2000 (38) and 2001 (41) rates, it still constitutes a statistically significant 50.1-percent increase from 1995. For specific “other opiates,” the number of hydrocodone/combination ED mentions climbed from 65 in 1995 to 150 in 2002, a statistically significant increase of 130.8 percent. Likewise, oxycodone/combination (which includes OxyContin) ED mentions increased from 57 in 1995 to 116 in 2002 (a statistically significant increase of 103.5 percent). Also, as discussed above in the heroin section, statewide opiate-related hospital discharges increased 73 percent from 1995 to 2001.

The proportion of other opiate treatment admissions remained relatively stable from 1997 (2.2 percent) to 1999 (2.7 percent), but increased to 3.2 percent and 3.8 percent in 2000 and 2001, respectively. They remained at about that level in 2002 (3.5 percent) and in the first half of 2003 (3.6 percent).

The NFLIS reported that small proportions of the drug items analyzed from October 2002 to September 2003 were hydrocodone (0.6 percent), oxycodone (0.3 percent), codeine and morphine (each about 0.2 percent), and methadone (0.1 percent).

The DEA reports that diversion of OxyContin continues to be a “major problem” in the Rocky Mountain West. It sells on the street for \$1 per milligram, which is 10 times the legal prescription price. The DEA also reports that pharmacy break-ins are common throughout the Rocky Mountains, with OxyContin leading the list of drugs stolen. Also, across the State, clinicians are anecdotally reporting increased use of Vicodin and OxyContin.

### **Marijuana**

Most marijuana indicators were stable or decreased from 2001 through the first half of 2003.

From 1996 to 2000, the rate per 100,000 population of marijuana ED mentions increased from 19 to 51 (exhibit 1). The 2001 rate remained stable at 50 per 100,000 population. However, in 2002, the 38 marijuana mentions per 100,000 population represented a substantial, but not statistically significant, decrease from the prior year. Marijuana hospital discharge occurrences per 100,000 population have risen dramatically from 45.6 in 1996 to 67.2 in 2002 (exhibit 2).

Marijuana calls to the RMPDC were nearly nonexistent between 1994 and 1998, with only one or two per year. However, in 1999, 2000, and 2001 there were 47, 58, and 97 calls, respectively, related to marijuana effects. In 2002, the number of calls dropped slightly to 89.

The proportion of marijuana treatment admissions among all illicit drug admissions in Colorado increased from 37.9 percent in 1997 to 43.7 percent in 1999 (exhibit 3). Since that time, however, they have declined to 40.6 percent in 2001, to 36.6 percent in 2002, and to only 32.9 percent in the first half of 2003. From 1997 through the first half of 2003, however, marijuana users have accounted for the largest proportion of all Colorado drug treatment clients.

The proportion of new users entering treatment for marijuana had been declining steadily from 1997 (33.1 percent) to 1999 (25.4 percent). However, in 2000 this proportion climbed somewhat to 29.9 percent, remained at that level (29.2 percent) during 2001, but dropped to 26.7 percent in 2002. Likewise, in the first half of 2003, the proportion of new mari-

juana users admitted to treatment remained at the 2002 level of 26.8 percent (exhibit 4).

Data indicate only slight changes in the demographics of marijuana treatment clients. Race proportions remained relatively stable from 1996 through the first half of 2003. Hispanics increased as a proportion of marijuana admissions from 31.4 percent in 1996 to 36.3 percent in 1999, but declined to only 28.5 percent through the first half of 2003. The proportion of Whites has fluctuated up and down only slightly from 1996 (57.3 percent) through the first half of 2003 (56.3 percent). African-Americans had constituted between 6.5 and 9.2 percent of marijuana admissions between 1996 and 2001, but that proportion rose to 11.1 percent in the first half of 2003, the highest proportion during the 6½-year period. Male-to-female marijuana admission ratios have remained at approximately 3 to 1 from 1996 through the first half of 2003.

There have also been small changes in the marijuana age group proportions from 1996 through the first half of 2003. The proportion of those age 12–17 decreased slightly from 41 percent in 1996 to 38.3 percent in 2001, but dropped to 34 percent in 2002 and to 33.5 percent in the first half of 2003. Conversely, the 18–25 age group, which had been fluctuating between 27 and 32 percent from 1996 through 2002, increased to 34.8 percent during the first half of 2003. However, the 26–34 age group proportion has remained relatively stable from 1996 (16.9 percent) through 2002 (17.7 percent), and the first half of 2003 (16.8 percent). On the other hand, the 35-and-older age group proportion, which had increased from 12.4 percent in 1996 to 23.8 percent in 1999, has dropped to 14.8 percent through the first half of 2003.

The 2001 ADAM data indicated that 40 percent of the male arrestee sample and 33 percent of the female arrestee sample had positive marijuana urine screens. These percentages remained stable in 2002, with 40.3 percent of males and 32.6 percent of females testing marijuana-positive.

According to NFLIS data, 17.3 percent of the drug items analyzed between October 2002 and September 2003 were cannabis.

The Denver DEA states that the most “abundant supply of marijuana is Mexican grown and is trafficked into the area from the border areas of Texas, New Mexico, and Arizona by Mexican poly-drug trafficking organizations. Vehicles with hidden compartments are used to transport shipments weighing from pound to multi-pound quantities.” Mexican marijuana sells at

a price range of \$500 to \$1,000 per pound. The DEA also indicates that high tetrahydrocannabinol (THC) seedless marijuana from British Columbia, known as “BC Bud” or “Triple A,” continues to be increasingly available and popular in Colorado at prices of \$600 per ounce and \$3,200–\$4,500 per pound.

Further, according to the DEA, locally grown marijuana is almost always grown indoors by independent operators with grow equipment varying from basic to elaborate operations with sophisticated lighting and irrigation systems. Domestically grown marijuana prices range from \$1,500 to \$4,000 per pound and \$200 to \$500 per ounce.

Also, FDSS seizure data presented in the NDIC Colorado Drug Threat Assessment demonstrates the ready availability of marijuana across the State. Federal law enforcement officials seized 882.5 kilograms of marijuana in 1998, 901.6 kilograms in 1999, 718.1 in 2000, and 1,591.5 kilograms in 2001.

Uniformly, across the State, programs describe two major aspects of marijuana use: it is readily available in a variety of prices and potencies and it is “not taken seriously as a hard drug by society.” Moreover, many clinicians say that their clients talk about marijuana’s health properties (i.e., medicinal use) as proof that it should be legalized.

### Stimulants

While use of methamphetamine and other stimulants in Denver and across Colorado has fluctuated from 1997 through the first half of 2003, most indicators have increased during the last few years.

Methamphetamine ED mentions per 100,000 population in Denver increased from 7 in 1996 to 19 in 1997, but then declined to only 5 in 2001 and remained at that level in 2002 (exhibit 1). Conversely, the rate of amphetamine ED mentions per 100,000 population rose from 6 in 1996 to 21 in 2000, remained at that level in 2001, and increased to 24 in 2002. However, this increase was not statistically significant. Amphetamine-related hospital discharge occurrences per 100,000 population (exhibit 2) have also shown a fluctuating pattern from 1996 to 2002. However, overall they have increased during that time period from 13.9 to 32.6 per 100,000.

Amphetamine-related calls (street drug category) to the RMPDC had decreased from 1994 (36 calls) to 1996 (16 calls), but increased sharply in 1997 (38 calls). While such calls dropped to only 11 in 1998,

they rebounded sharply to 291, 269, and 581 in 1999, 2000, and 2001 respectively. In 2002, amphetamine calls remained at a high level (247).

Methamphetamine treatment admissions have shown peaks and valleys over the past 6½ years. Overall, however, they have increased from 14.9 percent of drug admissions in 1997 to 22.4 percent in the first half of 2003. Amphetamine admissions typically total only a fraction of those for methamphetamine. However, from 1996 to 2000 they increased from 65 to 171, or from 0.5 percent to 1.3 percent of all drug treatment admissions; amphetamine admissions declined slightly to 128 admissions (1 percent) during 2001 and to 106 (0.8 percent) during 2002. This decline continued in the first half of 2003, when amphetamines accounted for only 0.4 percent of drug admissions ( $n=28$ ).

In 1997, 30.5 percent of primary methamphetamine users entering treatment were new users (exhibit 4). This percentage declined to 27.3 in 1998 and again to 20.5 percent in 1999. However, from 1999 through the first half of 2003 (20.5 percent), the proportion of new users has remained stable.

A comparison of 2002 “new” methamphetamine users (i.e., entering treatment within the first 3 years of use) ( $n=531$ ) to “old” methamphetamine users (i.e., entering treatment after 4 or more years of use) ( $n=2,022$ ) shows dramatic differences between these two groups. Demographically, the new users are more often female (53.3 percent) than old users (44.6 percent), and less often White/non-Hispanic (77.0 percent) than old users (83.2 percent). In addition, somewhat expectedly, a higher proportion of new users are age 25 and younger (58.2 percent) compared with old users (only 27.3 percent). Accordingly, new users are much more likely to have never been married (63.3 percent) than old users (44.7 percent). Old users are somewhat more likely to be employed full or part time (36.6 percent) than new users (30.1 percent).

Regarding “severity” data, old users are much more often methamphetamine injectors (33.7 percent) than new users (15.4 percent), while new users report a higher proportion of smokers (67 percent) than the old user group (48.1 percent). Also, old users are more likely to have a diagnosis of drug dependence (28.6 percent) than new users (23.2 percent). Interestingly, however, new users report a higher proportion of concurrent mental health problems (31.1 percent) than their old user counterparts (27.4 percent). Both new and old users averaged one arrest in the 2 years prior to treatment admission, while old users averaged seven prior

lifetime treatment episodes, compared with two among new users. Also, about the same proportion of old and new users (23 percent and 20 percent, respectively) reside in the Denver metropolitan area. Similarly, a comparable proportion of old and new users live on the “Western Slope” of Colorado (16 percent and 15 percent, respectively).

Injection had been the most common route of administration for methamphetamine. However, the injection drug user (IDU) proportion has been declining from 1996 (40.0 percent) to the first half of 2003 (25.5 percent), while smoking has become increasingly common in the last 7 years. In the first half of 2003, about 58 percent of methamphetamine treatment admissions smoked the drug, compared with only 22 percent in 1996.

Methamphetamine treatment admissions for the first half of 2003 remained predominately White (83.5 percent), although the proportion of Hispanic treatment admissions increased from 6.9 percent in 1996 to 12.1 percent in the first half of 2003. Females accounted for slightly less than one-half of methamphetamine admissions in 2002 and in the first half of 2003 (46.4 and 48.5 percent, respectively). Regarding age, from 1996 to the first half of 2003, those 25 and younger remained at about one-third of admissions, those age 26 to 34 declined from 40.0 percent to 35.3 percent of admissions, and those age 35 and older increased from about one-fourth to about one-third (31.8 percent) of methamphetamine admissions.

Methamphetamine death mentions (single and in combination with other drugs) in the Denver metropolitan area more than tripled from 6 in 1997 to 19 in 2001. However, amphetamine death mentions increased only slightly from 5 in 1997 to 8 in 2001. While the number of amphetamine-related deaths in Colorado is far lower than those for opiates or cocaine, the number has increased sharply from only 16 between 1995 and 1998 to 38 between 1999 and 2002 (a 138-percent increase).

According to ADAM data, only a small percentage of positive methamphetamine urine screens were reported in 2001: 3.4 percent of the male arrestee sample and 4.3 percent of the female arrestee sample. In 2002, these figures increased slightly for males (3.8 percent) and slightly more for females (6.6 percent).

The NFLIS data show that methamphetamine represented nearly 11 percent of the items analyzed from October 2002 to September 2003.

The DEA describes widespread methamphetamine

availability, with a majority of the drug originating in Mexico or from large-scale laboratories in California. However, methamphetamine lab seizures in Colorado increased significantly from around 25 in 1997 to 452 in 2001. These laboratories, generally capable of manufacturing an ounce or less per “cook,” varied from being primitive to quite sophisticated. The ephedrine reduction method remains the primary means of manufacturing methamphetamine in the area. Most lab operators are able to get the precursor chemicals from legitimate businesses (e.g., discount stores, drug stores, chemical supply companies, etc.). The purity for methamphetamine ranges from 10 to 20 percent for larger imported quantities, and from 70 to 90 percent for small-scale labs. The DEA reports that Colorado methamphetamine street prices are stable at \$80–\$125 per gram, \$700–\$1,000 per ounce, and \$4,500–\$7,500 per pound.

Reports from clinicians, researchers, and street outreach workers around the State all describe the widespread and growing availability of methamphetamine. In northeast and southeast Colorado, programs talk of increased use among Hispanics for a drug that has more typically been seen as an “Anglo drug.” They also report more use among younger age groups (adolescents and those in their early twenties). In the Denver metropolitan area, one program described more gay, White men entering treatment for methamphetamine use. A clinician from another program stated “there may have always been a large number of Hispanic users, only now they are coming to America” (i.e., large influx of low-income workers from Mexico). Some programs report more females using “speed” both for the psychotropic effects and for weight loss purposes. In general, across the State, clinicians attribute methamphetamine’s increased use to its cheap price and its “longer lasting high” (compared with cocaine).

### **Club Drugs**

Club drugs are a group of synthetic drugs commonly associated with all-night dance clubs called “raves.” These drugs include methylenedioxymethamphetamine (MDMA or “ecstasy”), gamma hydroxybutyrate (GHB), flunitrazepam (Rohypnol or “roofies”), and ketamine (“Special K”).

Information on use of these drugs in Colorado, while still limited, is expanding. ADAD added club drugs to the enhanced DACODS data set in July 2002. Also, there are currently two sources of institutional indicator data that include the club drugs (DAWN and the Rocky Mountain Poison and Drug Center). In addition,



ADAD has worked with OMNI Research and Training, a Denver-based firm, to add club drug questions to the Colorado Youth Survey. Data from all the above sources are discussed below.

MDMA, originally developed as an appetite suppressant, is chemically similar to the stimulant amphetamine and the hallucinogen mescaline, and thus produces both stimulant and psychedelic effects. The handful of MDMA-related calls to the RMPDC ranged from only 3 to 11 during the 1994–1999 period. MDMA ED mentions, however, jumped from 6 in 1998 to 15 in 1999 to 57 in 2000, but declined to 42 in 2001. Also, the 33 MDMA mentions in 2002 represent a statistically significant 21.4-percent decline from the prior year.

Exhibit 5 shows data from the 2002 Colorado Youth Survey. As indicated, lifetime MDMA use was reported by 0.7 percent of 6th graders, 1.1 percent of 7th graders, 3.0 percent of 8th graders, 4.4 percent of 9th graders, 5.2 percent of 10th graders, 10.8 percent of 11th graders, and 9.8 percent of 12th graders.

In FY 2003 (July 2002 through June 2003), there were 25 clients admitted to treatment claiming MDMA as their primary drug of abuse. Seventeen of the MDMA admissions were male and eight were female. Twenty of these clients were White (non-Hispanic), while 4 were Hispanic (race data are missing on one client). Six of the clients were age 12–17, eight were 18–25, seven were 26–34, and four were age 35 and older. Interestingly, 16 of the MDMA users took it orally, while 5 were smokers and 4 were injectors. Three-quarters ( $n=19$ ) of the MDMA users were diagnosed as drug abusers or dependent, while one-third (8) were diagnosed with a concurrent mental health problem.

The most recent NFLIS data for Denver show that 1.2 percent of the drug items analyzed were MDMA.

The DEA reports that ecstasy has emerged as a popular drug in the Rocky Mountain Region. It is readily obtainable by individuals at raves, nightclubs, strip clubs, or private parties. The traffickers are typically White and in their twenties or early thirties and get their MDMA from Nevada or California, with source connections in Europe. However, Mexican trafficking organizations are making inroads in the Colorado MDMA market. They place the one tablet or capsule price at \$15 to \$25, with larger quantities selling for \$8 to \$16 per tablet.

GHB is a central nervous system depressant that can sedate the body, and at higher doses can slow breathing and heart rate dangerously. It can be produced in

clear liquid, white powder, tablet, and capsule forms, and is often used in combination with alcohol, making it even more dangerous. During the 1994–1998 period, the RMPDC reported only one to six calls about GHB. However, in 1999 the number of GHB calls jumped to 92. GHB ED mentions had also increased from 7 in 1997 to 13 in 1998 to 71 in 1999. However, such mentions dropped to 43 in 2000, with only 16 mentions being reported in 2001 and 15 in 2002 (a statistically significant 65-percent decline from 2000 to 2002).

According to the Colorado Youth Survey (exhibit 5), lifetime GHB use was reported by 0.4 percent of 6th graders, 0.6 percent of 7th graders, 1.2 percent of 8th graders, 1.3 percent of 9th graders, 1.5 percent of 10th graders, 1.4 percent of 11th graders, and 1.2 percent of 12th graders.

In FY 2003, there were seven clients admitted to treatment claiming GHB as their primary drug of abuse; only one was female. Six of the GHB admissions were White and one was Hispanic. Curiously, all but one was 35 and older. All had taken the drug orally and all were diagnosed as being drug abusers or dependent. Two out of seven were diagnosed with a concurrent mental health problem.

The DEA reports that GHB is readily available in Colorado and that the majority of customers are White and in their twenties or thirties. Past DEA reports have placed the GHB price at \$5–\$10 per dosage unit (i.e., one bottle cap full).

Rohypnol (roofies) is a benzodiazepine sedative (others include Valium and Xanax) approved as a treatment for insomnia in more than 60 countries, but not in the United States. Rohypnol is tasteless, odorless, and dissolves easily in carbonated beverages; its effects are aggravated by alcohol use. There does not appear to be widespread use of this drug among either the general population or those in the rave scene in Colorado. The number of calls received by RMPDC about this drug jumped from 1 in 1994 and 1995 to 22 in 1998. In 1999, however, such calls declined to only seven. Also, there were only two Rohypnol ED mentions from 1994 through 2002.

In FY 2003, 16 clients were admitted to treatment claiming Rohypnol as their primary drug of abuse; 13 were male. Eight were White, six were Hispanic, one was Native American, and one was Asian. Eleven were age 35 and older. Fourteen Rohypnol admissions had taken the drug orally, one reported smoking, and another reported inhaling. Eleven were diagnosed

as being drug abusers or dependent. None of the 16 admissions was diagnosed with a concurrent mental health problem.

Ketamine, often called Special K on the street, is an injectable anesthetic that has been approved for both human and animal use in medical settings. About 90 percent of the ketamine legally sold today is intended for veterinary use. Produced in liquid form or white powder, it can be injected, inhaled, or swallowed. Similar to phencyclidine (PCP) in its effects, it can bring about dream-like states and hallucinations. The RMPDC did not report any ketamine calls from 1994 to 1999. There were only 3 ketamine ED mentions from 1994 to 1999, but there were 12 and 11 such mentions in 2000 and 2001, respectively. In 2002, however, there were no ketamine ED mentions.

For the Colorado Youth Survey, lifetime ketamine use was reported by 0.5 percent of 6th graders, 1.0

percent of 7th graders, 1.7 percent of 8th graders, 3.0 percent of 9th graders, 2.5 percent of 10th graders, 4.8 percent of 11th graders, and 3.3 percent of 12th graders (exhibit 5).

In FY 2003, there were only four clients admitted to treatment who reported ketamine as their primary drug of abuse. All were White (non-Hispanic), three were male, and three were age 35 and older. Two had taken the drug orally, while one reported smoking, and another reported injecting. Two were diagnosed as being drug abusers or dependent. None was diagnosed with a concurrent mental health problem.

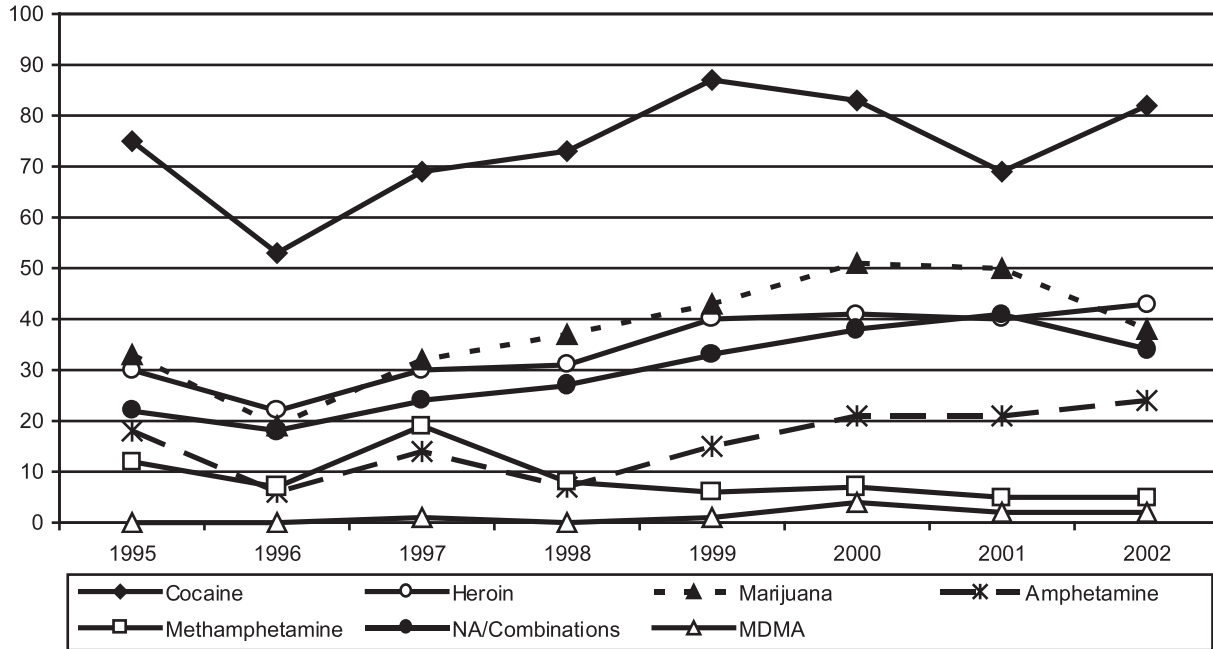
#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Of the 7,936 AIDS cases reported in Colorado through September 30, 2003, 9.2 percent were classified as injection drug users (IDUs), and 11.0 percent were classified as homosexual or bisexual males (men who

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**Exhibit 1. Rates of DAWN ED Mentions per 100,000 Population in the Denver Area for Selected Drugs: 1995–2002**



SOURCE: DAWN, OAS, SAMHSA

**Exhibit 2. Numbers and Rates per 100,000 Population of Hospital Discharge Mentions in Colorado for Selected Drugs: 1996–2002**

Drug	1996	1997	1998	1999	2000	2001	2002
Amphetamines							
Number of mentions	532	959	815	682	942	1,161	1,463
Rate per 100,000	13.9	24.6	20.5	16.9	21.8	26.3	32.6
Cocaine							
Number of mentions	2,255	2,245	2,492	2,517	2,732	2,787	3,305
Rate per 100,000	59.0	57.7	62.8	62.3	63.2	63.2	73.6
Marijuana							
Number of mentions	1,740	2,118	2,227	2,204	2,455	2,755	3,016
Rate per 100,000	45.6	54.4	56.1	54.6	56.8	62.5	67.2
Opiates							
Number of mentions	760	1,458	1,566	1,639	2,053	2,237	2,605
Rate per 100,000	19.9	37.5	39.5	40.6	47.5	50.8	58.0
Population	3,819,789	3,892,996	3,966,198	4,039,402	4,324,920	4,407,305	4,487,727

SOURCE: CHA and CDPHE

**Exhibit 3. Treatment Admissions in Colorado by Drug Type and Percent: 1997–1H 2003**

Drug	1997	1998	1999	2000	2001	2002	1H 2003
Total Admissions (N)	(11,757)	(14,301)	(14,511)	(13,109)	(13,183)	(13,913)	(7,080)
Heroin	13.7	13.2	14.4	14.5	14.0	12.5	12.7
Non-Rx Methadone	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Other Opiates	2.2	2.3	2.7	3.2	3.8	3.5	3.6
Methamphetamine	14.9	13.5	10.7	13.0	15.6	18.4	22.4
Other Stimulants	0.9	0.7	1.1	1.5	1.2	2.0	1.8
Cocaine	27.1	26.6	23.7	21.1	20.7	21.7	22.2
Marijuana	37.9	39.8	43.7	42.5	40.6	36.6	32.9
Hallucinogens	0.7	0.7	0.7	0.8	0.7	0.4	0.2
PCP	0.0	0.0	0.1	0.1	0.1	0.0	0.0
Barbiturates	0.1	0.2	0.1	0.1	0.1	0.4	0.4
Sedatives	0.2	0.2	0.2	0.3	0.2	2.2	1.5
Tranquilizers	0.8	0.7	0.9	0.6	0.6	0.6	0.8
Inhalants	0.9	0.8	0.5	0.5	0.6	0.3	0.5
Club Drugs <sup>1</sup>	N/A	N/A	N/A	N/A	N/A	0.2 <sup>2</sup>	0.4 <sup>3</sup>
Other	0.7	1.2	1.1	1.6	1.8	1.2	0.6

<sup>1</sup>Data collection for club drugs began in July 2002.

<sup>2</sup>Includes MDMA (n=11), GHB (9), ketamine (3), and Rohypnol (9).

<sup>3</sup>Includes MDMA (15), GHB (1), ketamine (2), and Rohypnol (7).

SOURCE: DACODS

**Exhibit 4. Annual Percentages of Heroin, Methamphetamine, Cocaine, and Marijuana Users Entering Treatment in Colorado Within 3 Years of Initial Use: 1997– 1H 2003**

Drug	1997	1998	1999	2000	2001	2002	1H 2003
Heroin (N) Percent	(262) 16.6	(362) 19.6	(356) 17.6	(352) 18.7	(301) 16.6	(289) 17.1	(91) 10.1
Methamphetamine (N) Percent	(514) 30.5	(517) 27.3	(312) 20.5	(347) 20.5	(406) 20.0	(531) 20.8	(325) 20.5
Cocaine (N) Percent	(433) 14.0	(587) 15.8	(516) 15.5	(447) 16.5	(418) 15.7	(470) 15.6	(259) 16.7
Marijuana (N) Percent	(1,430) 33.1	(1,669) 30.5	(1,547) 25.4	(1,644) 29.9	(1,538) 29.2	(1,357) 26.7	(625) 26.8

SOURCE: DACODS

**Exhibit 5. Lifetime Club Drug Use Among 6th Through 12th Graders, Colorado Youth Survey: 2002**

Grade	MDMA	Ketamine	GHB
6th Graders			
Sample (N)	5,651	5,673	5,664
Use (n)	57	30	25
Use (%)	0.7	0.5	0.4
7th Graders			
Sample (N)	3,079	3,108	3,102
Use (n)	35	31	18
Use (%)	1.1	1.0	0.6
8th Graders			
Sample (N)	7,112	7,136	7,139
Use (n)	215	124	89
Use (%)	3.0	1.7	1.2
9th Graders			
Sample (N)	847	853	848
Use (n)	37	25	11
Use (%)	4.4	3.0	1.3
10th Graders			
Sample (N)	3,705	3,710	3,709
Use (n)	194	93	54
Use (%)	5.2	2.5	1.5
11th Graders			
Sample (N)	1,047	1,052	1,051
Use (n)	113	50	14
Use (%)	10.8	4.8	1.4
12th Graders			
Sample (N)	2,240	2,247	2,241
Use (n)	219	75	27
Use (%)	9.8	3.3	1.2

SOURCE: Omni Research and Training

**Exhibit 6. Colorado Cumulative AIDS Cases by Exposure Category: Cumulative Through September 30, 2003**

Item	Number	Percent
Confirmed Cases	7,936	100.0
Gender		
Male	7,330	90.6
Female	606	9.4
Exposure Category		
MSM	5,366	67.9
IDU	728	9.2
MSM and IDU	874	11.0
Heterosexual contact	463	5.7
Other	186	2.4
Risk not identified	319	3.8

SOURCE: Colorado Department of Public Health and Environment

# Drug Abuse Trends in Detroit/Wayne County and Michigan

Richard F. Calkins<sup>1</sup>

## ABSTRACT

*Cocaine indicators continued to stabilize, with small declines in deaths and ED mentions. Heroin treatment admissions increased as reported total treatment admissions increased, while heroin-involved deaths began to decline slightly after reaching a peak in 2002. Data on other opiates showed increases in hydrocodone and, to a lesser extent, oxycodone use. Marijuana continued to be the top illicit drug, with indicators remaining stable. Indicators for methamphetamine showed continuing increases, while indicators for abuse of LSD, GHB, ecstasy, ketamine, and Coricidin HBP showed some recent stabilizing or decreases. Twenty-nine percent of the cumulative AIDS cases in Michigan have been injection drug users.*

## INTRODUCTION

### Area Description

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

Currently, Michigan is the eighth most populous State in the Nation. The Detroit metropolitan area ranks 10th among the Nation's major population centers. In 2000, the city of Detroit's population was 951,000. Michigan's population increased by 6.9 percent between 1990 and 2000. Population growth above the statewide average occurred among those age 10–14 (12 percent), 15–17 (8.5 percent), and 5–9 (7.6 percent). There was a net population loss among those younger than 5 (4.3 percent) by 2000 because of declining birth rates since the mid-1990s. The following factors contribute to probabilities of substance abuse in the State:

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

- The State has an international border of 700 miles with Ontario, Canada; land crossings at Detroit (also has a tunnel crossing), Port Huron, and Sault Ste. Marie; and water crossings through three Great Lakes and the St. Lawrence Seaway, which connects to the Atlantic Ocean. Between Port Huron and Monroe, many places along the 85 miles of heavily developed waterway are less than one-half mile from Canada. Michigan has more than 1 million registered boats. In fiscal year (FY) 2002, three major bridge crossings from Canada (Windsor Tunnel, Ambassador Bridge, and Port Huron) had 9.7 million cars, 2.6 million trucks, and 93,000 buses cross into Detroit. 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. The Foreign Mail Branch in Detroit processes 275,000 foreign parcels and about 900,000 letter-class pieces monthly.

Additional factors influence substance use in the State:

- Michigan's numerous colleges and universities have many out-of-State or international students.
- The State has a large population of skilled workers with relatively high income (especially in the automotive industry), as well as a large population with low or marginal employment skills.
- There are chronic structural unemployment problems. Michigan has prospered in recent economic periods, with low unemployment. As the national economy slowed in 2002, so did the Michigan economy. Recovery has been sluggish in 2003 to date.

### Data Sources

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

- **Hospital emergency department (ED) drug mentions data** through 2002 were obtained from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and

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Mental Health Services Administration (SAMHSA).

- **Treatment admissions data** were provided by the Bureau of Substance Abuse and Addiction Services, Office of Drug Control Policy, Michigan Department of Community Health (MDCH), for the State and Detroit/ Wayne County, as reported by State and federally funded programs. Reporting practices, which changed on October 1, 1998, affect the capability to reliably track trends in client characteristics, drugs of abuse, and other data reported in admissions records. During FY 2001 and FY 2002, State reporting requirements were revised, which also challenged reporting continuity. The admissions volume reported has been declining over the past several years; it is difficult to identify whether changes in data reflect reporting practices or actual changes in the populations entering treatment, as all data are no longer reported. Software delays during FY 2002 resulted in large volumes of unresolved errors in data submissions and an inability to produce data sets for analysis until yearend. FY 2003 data reflect a 16.8-percent increase in reported treatment admissions statewide and a 27.4-percent increase in admissions reported in Detroit/Wayne County.
- **Drug-related 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 from 1993 through August 2003. These drug tests are routine when the decedent 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.
- **Heroin purity data** were provided by the Drug Enforcement Administration (DEA). Preliminary data on heroin purity between mid-2001 and mid-2002 were from the DEA's Domestic Monitor Program (DMP).
- **Drug intelligence data** were provided by the Michigan State Police.
- **Drug distribution data**, from the High Intensity Drug Trafficking Area, Investigative Support and Deconfliction Center, of Southeast Michigan (HIDTA-SEM), were derived from the FY 2003 Threat Assessment. Nine counties (not all in south east Michigan) now cooperate in HIDTA-SEM.
- **Poison control case data** were provided by the Children's Hospital of Michigan Poison Control

Center in Detroit and represent contact data on cases of intentional abuse of substances from January through November 12, 2003. This center is one of two in Michigan; its catchment area is primarily eastern Michigan, although contacts can originate anywhere.

- **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 October 1, 2003.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine and Crack

Between 1994 and 1999, cocaine was the most frequent DAWN ED drug mention in Detroit metropolitan counties (exhibit 1). The Detroit area rate of cocaine ED mentions per 100,000 population was 178 in 1999, 179 in 2000, 186 in 2001, and 182 in 2002. After a slight but nonsignificant increase from 1999 to 2000, there was a slight but nonsignificant decrease in the years 2001 and 2002.

The typical cocaine ED case continued to be a male, age 35 or older, who went to the emergency department seeking help for unexpected reaction, chronic effects, or overdose, and was treated and released in a multidrug-involved episode. Since about 2000, there have been decreases in ED mentions in younger age groups.

Cocaine (including crack) has been the foremost primary illicit drug of abuse among admissions to State-funded treatment programs statewide since FY 1986. During FY 2001, cocaine/crack was the top illicit drug among statewide admissions, accounting for 18 percent of total admissions, while in FY 2002, cocaine/crack accounted for 17 percent of statewide admissions. In FY 2003, cocaine was primary drug for 18 percent of all admissions in Michigan. In Detroit/Wayne County, cocaine represented 28 percent of total admissions in FY 2001, and 26 percent in both FY 2002 and FY 2003. Since FY 2001, cocaine admissions have been exceeded only by heroin admissions Detroit/Wayne County.

Cocaine (including crack) was involved (as either primary, secondary, or tertiary drug) in 35 percent of all treatment admissions statewide in FY 2002 and 36 percent in FY 2003. In Detroit/Wayne County, cocaine/crack was involved as either primary, secondary, or tertiary drug in 52 percent of the cases in FY

2002 and 50 percent in FY 2003. Cocaine-involved treatment admissions increased by 20 percent statewide in FY 2003, while the number of total admissions reported increased by almost 17 percent over the prior year. About one of every three cocaine-involved admissions statewide in FY 2002 and FY 2003 was in Detroit/Wayne County.

The numbers of decedents with a positive drug toxicology for cocaine in Detroit/Wayne County were basically stable between 1995 and 1999, with small fluctuations year to year (exhibit 2). In 2000, there was a 16-percent increase in cocaine deaths over 1999. In 2001, cocaine deaths increased by less than 3 percent from 2000, to 406 cases. In 2002, the 417 cocaine deaths were a slight increase over 2001. The 266 cocaine-present deaths in the first 8 months of 2003 suggest a slightly decreasing pattern is developing, with year-end projections of 399 cocaine-present deaths.

Availability, prices, and purity for powder cocaine and crack remained relatively stable during the most recent reporting period. Ounce and kilogram prices have been stable for at least the past 9 years. There are some reports of decreases in prices at the kilogram quantity level and above. The cost of crack rocks now ranges from \$10 to \$50, with \$10 the most common unit price in Detroit neighborhoods. Higher-priced units (\$20–\$25) are more typical when the drug is sold to outsiders in Detroit, or when it is sold outside Detroit. Ounce amounts of cocaine and crack usually sold for the same price (\$750–\$1,300) since 2001 in Detroit. Small plastic bags (heat-sealed or zip-lock), aluminum foil, and no packaging at all are now the most common conveyances.

Numerous organizations distribute cocaine in the metropolitan area and statewide, according to the FY 2003 Threat Assessment by the HIDTA-SEM. The Detroit metropolitan area remains a source hub for other areas of Michigan and the larger Midwest. Gangs control a number of distribution points and are major suppliers to many markets, although it is reported that there is less organized identifiable street gang activity than in the past. Michigan State Police reported that multiple homicides have continued in Saginaw in 2003 because of gang activity, drug market competition, or outright drug robberies. A newly emerging population of heavy crack users is reported to involve Native Americans living around northern Michigan casinos.

## Heroin

ED mentions for heroin have trended gradually upward since 1994, to stabilize in 2001 and 2002 (exhibit 1). The Detroit metropolitan area rate of heroin mentions was 61 per 100,000 population in 1999, 76 in 2000, and 93 in both 2001 and 2002.

The typical heroin ED case in 2002 continued to be a male, age 45–54, who sought help in an emergency department for chronic effects, unexpected reactions, or overdose and was treated and released. Between 1995 and 2002, there were significant increases in heroin ED mentions by females (91.5 percent), those age 18–25 (108.8 percent), and those admitted to the hospital (76.1 percent).

Heroin as the primary drug among treatment admissions accounted for 29 percent of all admissions in FY 2002 and FY 2003 in Detroit/Wayne County and 12 percent of admissions statewide in FY 2002 and FY 2003. The 5,202 admissions in Detroit/Wayne County involving heroin as primary, secondary, or tertiary drug accounted for 55 percent of the statewide total of 9,523 heroin-involved admissions in FY 2003. Total heroin-involved admissions in Michigan increased by 20 percent in FY 2003, paralleling the increase in total treatment admissions reported. One in three admissions in Detroit/Wayne County involved heroin, while heroin was involved in 15 percent of all statewide admissions in FY 2002 and FY 2003.

Heroin deaths steadily increased in Detroit/Wayne County between 1992 and 2002. In 1996, there were 240 heroin-present deaths; by 2000, the annual number had nearly doubled (exhibit 2). Deaths with heroin metabolites present in 1999 represented a 24-percent increase from 1998, while in 2000, heroin cases increased again, by 23 percent over the 1999 total. The 465 heroin-present deaths in 2001 were a slight decrease from the 473 deaths in 2000. During 2002, 496 heroin-present deaths were identified, which again exceeded the number of cocaine-involved deaths. Based on the first 8 months of 2003, the year-end total for heroin-involved deaths could decrease to about 464 cases, or about the same total as in 2001.

Since 1996, the Wayne County ME lab has tested decedents for 6-monoacetylmorphine (or 6-AM) to determine whether its presence parallels increases in heroin (morphine) positivity. Until nearly the end of



2001, findings of 6-AM were at about one-half the level for heroin-present cases. Findings of this drug are most typical in decedents with more acute effects of heroin use. A decline in this ratio began in late 2001, and for 2002 there was a ratio of about 37 percent of 6-AM to heroin being present. For the first 8 months of 2003, this same ratio returned to the earlier pattern at 53 percent.

Nearly all available heroin continued to be white in color. South America (Colombia) most likely remains the dominant source, although in the past 3–4 years, heroin originating in both Southeast Asia and the Middle East has been identified. Heroin originating in Mexico continued to be available in some parts of Michigan outside the Detroit metropolitan area.

Heroin street prices remained stable and relatively low in Detroit. Packets or “hits” available in Detroit are typically sold in \$10 units, while outside the area individual units sometimes cost \$15–\$25 or more. Price is also affected by whether the buyer is known to the seller, as well as whether the buyer and seller have the same racial/ethnic origin. Bundles of 10 hits cost between \$75 and \$150. Packaging is often tinfoil, lottery papers, coin envelopes, balloons, fingers cut off from surgical gloves, or small plastic zip-lock bags. There are some reports that there are fewer independent dealers and more organizational models, with distinct roles for participants involved. There are continued reports that some outstate users of oxycodone switched to heroin because of lower oxycodone availability. Recent information suggests that heroin is often referred to as “blow” in the Detroit area, a term previously used for cocaine powder.

According to the most recent information from the DEA, heroin purity, which had increased from the early 1990s to a peak of nearly 50 percent in 1999, averaged 45.8 percent for South American heroin and 41.7 percent for Southwest Asian heroin in 2002. This is a slight decrease from the prior year, while price (when adjusted for purity) increased.

Among new heroin users are a number of young, suburban Whites (especially females) who claim to be “social users” who inhale the drug.

### **Other Opiates/Narcotic Analgesics**

In the Detroit area, indicators for opiates and narcotics other than heroin remained lower than those for cocaine and heroin, continuing a long-term trend since the early 1980s. Codeine and its prescription compounds (Schedule III and IV drugs) have long

been the most widely abused other opiates; codeine indicators were stable. However, indicators reflect recent increases in hydrocodone combinations (typically Vicodin, Lortab, or Lorcet) use and possible stabilization in use of oxycodone (OxyContin). Law enforcement sources report that Vicodin is commonly available, with some of it being diverted from pain clinic patients.

As primary drugs among treatment admissions in FY 2002, other opiates were reported in 284 cases in Detroit/Wayne County and in 1,930 cases statewide. In FY 2003, there were 405 primary other opiates admissions in Detroit/Wayne County and 2,618 such admissions statewide. These Detroit/Wayne County and statewide cases reflect increases of 43 and 36 percent, respectively, which exceed the increases in total admissions reported between FY 2002 and FY 2003. Other opiates (as primary, secondary, or tertiary drugs) were involved in 7 percent of statewide admissions and in 6 percent of Detroit/Wayne County admissions in FY 2002, compared with 8 percent statewide and 6 percent in Detroit/Wayne County in FY 2003. The other opiates-involved admissions in Detroit/Wayne County accounted for less than one of every five statewide other opiates-involved admissions during FY 2002 and FY 2003.

Toxicology findings from the Wayne County ME lab showed 241 cases of codeine positivity in 2002, compared to an expected 212 cases in 2003 (based on data from the first 8 months of the year).

Hydrocodone and hydrocodone/combinations ED mentions began to be reported in southeast Michigan in 1994. The number of hydrocodone/combinations ED mentions increased significantly by 407 percent between 1995 and 2002 and 76 percent between 2000 and 2002 (exhibit 1). Hydrocodone was identified by the Wayne County ME lab in 60 decedents in 2000, 80 in 2001, and 120 in 2002; 108 cases are expected in 2003 based on data from the first 8 months of the year. Information from the Children’s Hospital of Michigan Poison Control Center on intentional hydrocodone abuse cases for 2001 identified about 40 cases; about one-half were female. In the first 10 months of 2003, about 175 cases of intentional hydrocodone abuse were reported to the poison control center, which is more than three times as many cases as in 2002.

The most recent southeast Michigan ED drug mentions data from DAWN show 21 oxycodone/combinations mentions in 1996, 15 in 1997, 19 in 1998, 17 in 1999, 45 in both 2000 and 2001, and a significant increase from both 2000 and 2001 to 157 mentions in 2002.

Since about 2000, oxycodone (OxyContin) has been steadily reported by law enforcement agencies, primarily in the western and northern lower Michigan areas, but more recently all over the State. It continues to be not uncommon for persons in emergency departments to ask specifically for this drug for various ailments. Pharmacy and household (especially of cancer patients) break-ins and armed robberies specifically related to this drug continued to be reported, but some of this may be declining as some pharmacies have posted signs they no longer carry OxyContin. Oxycodone was found in 10 decedents in Wayne County in 2000, 13 in 2001, and 12 in 2002; 15 cases are projected in 2003 based on data from the first 8 months of the year. It was involved in more than 20 cases reported to the Detroit poison control center in the first 10 months of 2003. OxyContin pills still sell for \$0.50–\$1.50 per milligram. Reports continue of oxycodone being smuggled from Canada. Some users have reportedly switched to heroin because of lower oxycodone availability in some outstate locations. One recent interdiction involved a pharmacist operating out of a corner in a party store who was responsible for putting more than 2.4 million dosage units (mostly analgesics or depressants) into the street drug supply.

### **Marijuana**

Marijuana indicators remain mostly stable but at elevated levels. Mexican marijuana continued to be the dominant form available, but there have been reports of increases in marijuana from Canada.

Detroit metropolitan area ED marijuana data show a steady increasing trend since 1994, with some fluctuations in a few years (exhibit 1). In 1999, the case rate for marijuana mentions per 100,000 population was 95, compared with 99 in 2000, 121 in 2001, and 146 in 2002. Between 2000 and 2002, this rate increased significantly by 47.6 percent. At the same time, the number of marijuana mentions increased significantly by 40.5 percent between 2000 and 2002.

The typical marijuana ED case was a male, age 35 or older, who was experiencing unexpected reactions or overdose, and who was treated and released in a multi-drug use episode. Between 1995 and 2002, there were significant increases in marijuana ED mentions involving those age 35 and older (106 percent), females (117 percent), and reported overdoses (298 percent). Single-drug episodes (or marijuana use only) increased among these mentions between 2000 and 2002.

Treatment admissions during FY 2002 in Detroit/Wayne County for marijuana as primary drug totaled 1,105, while the FY 2003 total was 1,401 such admissions (up 27 percent). Statewide, there were 8,834 marijuana admissions as primary drug in FY 2002, compared with 10,252 such admissions (up 16 percent) in FY 2003. These increases parallel the increases in total admissions reported in both periods. Marijuana was involved as primary, secondary, or tertiary drug in 40 percent of statewide admissions in both FY 2002 and FY 2003, and in 31 percent of FY 2002 and 29 percent of FY 2003 Detroit/Wayne County admissions. The Detroit/Wayne County marijuana-involved admissions accounted for about one of every six (17 percent) statewide marijuana-involved admissions in both FY 2002 and FY 2003.

The majority of marijuana seized in Michigan originates in Mexico and is transported in both large and small quantities by a variety of methods. Law enforcement agencies continue to report increases in seizures in hydroponically grown marijuana from Canada, which was being grown and smuggled by Asian organized crime operations. Canadian-grown marijuana is often known there as “Ontario Hydro,” and it often sold in the United States as “BC bud.” There are reports of dealers trading equal amounts (pound for pound) of cocaine for this marijuana. Some seizures have involved trucks that bring trash and marijuana from Canada into Michigan landfills and return to Canada with cash and sometimes cocaine. Law enforcement sources reported both more and larger seizures in 2002, both at the border and within Michigan.

### **Stimulants**

Indicator data showed increasing levels of methamphetamine abuse in the State, continuing primarily in the southwestern corner of lower Michigan. Amphetamine abuse has also been increasingly identified, although it is more stable than the methamphetamine patterns.

Southeast Michigan DAWN ED drug mentions for methamphetamine have remained near zero from 1996 to 2001, with 12 mentions reported in 2002 (exhibit 1). Amphetamine mentions declined after 1996 and then increased (nonsignificantly) in 2001 with 437 mentions. In 2002, 470 amphetamine mentions were reported.

Methcathinone (“cat”), an easily manufactured stimulant, was identified in Michigan’s Upper Peninsula around 1990; an epidemic ensued until about 1994. No additional labs were found until recently one was

uncovered in northern lower Michigan and another was found in the western Upper Peninsula. A trickle of reported admissions to treatment involving this drug continued; there were 9 primary methcathinone admissions statewide in FY 2000, 4 in FY 2001, 10 in FY 2002, and 4 in FY 2003. There were 17 methcathinone-involved admissions statewide in FY 2003.

In FY 2002, there were 280 primary methamphetamine admissions statewide, with 5 in Detroit/Wayne County. In FY 2003, there were 505 primary methamphetamine admissions statewide, with 4 in Detroit/Wayne County. The 280 primary methamphetamine admissions in FY 2002 lived in 43 of the 83 counties in Michigan, mostly in rural areas, with more admissions in western and southern counties; 5 lived in Detroit/Wayne County. In FY 2003, the 505 primary methamphetamine admissions lived in 49 counties.

Among primary drug methamphetamine admissions statewide in FY 2002, smoking was reported by almost one-half (43 percent), followed by inhalation (33 percent), oral (17 percent), and injection (eight percent) as routes of administration. Smoking increased as the route of use to 55 percent of FY 2003 primary methamphetamine admissions, followed by inhalation (25 percent), injection (11 percent), and oral (9 percent) routes.

Mortality data from the Wayne County ME lab show 2 methamphetamine-positive cases among decedents between April and September 2001, 1 case between October 2001 and March 2002, 10 cases total for 2002, and 2 cases in the first 8 months of 2003. The majority of these cases had multiple drugs present, including methylenedioxyamphetamine (MDA) or methylenedioxymethamphetamine (MDMA). Almost all were homicide cases; two were drownings.

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.

Michigan State Police reported seizing 40 methamphetamine labs in 2000 (all outside Detroit), compared with 14 labs in 1999. During 2001, 91 labs were seized by the Michigan State Police, and 120 were seized by the State Police, DEA, and local departments combined. In 2002, Michigan State Police seized 189 labs, or twice as many as in 2001.

Through November 24, 2003, Michigan State Police have seized 167 methamphetamine labs, and they note that an additional number have been seized by other law enforcement agencies. Environmental cleanups are an increasing problem. Most of the lab seizures have been in southwestern lower Michigan (particularly Allegan, Van Buren, and Barry Counties). The majority of labs seized so far continue to be relatively small in production capability, although more recently some larger labs have been found.

Michigan has a long history of high per capita distribution of methylphenidate (Ritalin). Indicators show little evidence of extensive intentional abuse, yet anecdotal reports of such cases continue.

Khat, a plant grown in the Middle East that must be freshly harvested to produce its desired stimulant effects, continued to be seized in batches ranging from several branches to more than 100 pounds at Michigan airports.

### **Depressants**

All indicators are relatively stable for depressants with the exception of carisoprodol (Soma), which is increasing in some indicator sources.

ED mentions of carisoprodol in southeast Michigan increased nonsignificantly from 146 in 2000, to 183 in 2001, and to 286 in 2002. Prior to this, there were 170 mentions in 1998 and 145 in 1999. Carisoprodol was identified in 20 Wayne County decedents in 2000, 30 in 2001, 24 in 2002, and 15 in the first 8 months of 2003. There were 21 cases of intentional carisoprodol abuse reported to the poison control center during the first 9 months of 2002, compared with 24 cases in the first 10 months of 2003.

Depressant treatment admissions in FY 2002 and FY 2003 remained low in relation to those for alcohol, cocaine, heroin, and marijuana. Such admissions typically involved benzodiazepines or sedatives/hypnotics. Barbiturates or tranquilizers were reported less often. Depressants remained more often involved as secondary or tertiary drugs among treatment admissions. In FY 2003, there were 1,524 admissions statewide involving depressants; 364 of these were in Detroit/Wayne County.

### **Hallucinogens**

Lysergic acid diethylamide (LSD) continued to decline from already low levels in indicators.

Hospital ED mentions for hallucinogens have been declining overall since about 1995, but phencyclidine (PCP) mentions remained relatively steady (exhibit 1). During FY 2002, there were 63 hallucinogen treatment admissions as primary drug statewide, with 8 of these cases involving PCP. In FY 2003, there were 45 admissions with primary hallucinogens; 4 of these cases involved PCP.

The Detroit Poison Control Center identified four cases in southeast Michigan involving “Foxy” in 2003, a hallucinogenic tryptamine (5-methoxy-N, N-diisopropyltryptamine, or 5-MeO-DIPT). All involved hospitalizations of young White males.

### Club Drugs

The club drugs category includes ecstasy, gamma hydroxybutyrate (GHB), flunitrazepam (Rohypnol), and ketamine. Indicators seem to be stabilizing for ecstasy and for ketamine and declining for GHB. The first appearance in indicator data to suggest that flunitrazepam is being used in Michigan was an ED mention in 2002.

The drug known as ecstasy is typically MDMA or MDA. Both drugs have been identified in past lab testing of ecstasy samples, sometimes in combination. There have been many anecdotal reports of widespread and increasing use since about 1997, but these drugs rarely appear in traditional indicators identifying abuse. Ecstasy users remain college students or young professionals, often in dance settings. Many urban and suburban areas outside Detroit continue to be noted as having significant ecstasy use. There are additional reports of some ecstasy use by high school students. Some sources report ecstasy has become more difficult to buy and that consequently some users have returned to marijuana use. Law enforcement seizures of ecstasy decreased in 2002.

Southeast Michigan ED drug mentions first began to reflect MDMA use in 1998, with six mentions reported (exhibit 1). MDMA mentions totaled 40 in 1999, 60 in 2000, and 111 in 2001. In 2002, there were 108 MDMA ED mentions reported, a significant 80-percent increase from 2000.

During FY 2002, there were 158 ecstasy-involved (as primary, secondary, or tertiary drug) treatment admissions statewide; 31 of these occurred in Detroit/ Wayne County. In FY 2003, there were 200 ecstasy-involved admissions statewide, with 69 in Detroit/Wayne County. It continues to be more common that ecstasy would be the tertiary or secondary drug than the pri-

mary drug involved among those seeking treatment.

The Children’s Hospital of Michigan Poison Control Center received reports of 31 cases involving ecstasy misuse in the 10-month period between January and November 2003. This is about the same number of cases as reported in 2002.

The Wayne County ME lab identified one MDMA/MDA death in 1998, two in 1999, three in 2000, and two in 2001. In 2002, there were 11 decedents with MDMA present; multiple drugs were found in all these cases. Most of the MDMA decedents in 2002 were homicide victims. One MDMA/MDA ME case was reported in the first 8 months of 2003.

Since 1998, there have been several indicators of increasing ketamine use. Break-ins to veterinary clinics have continued (but these may be slowing recently) in efforts to obtain this drug. The Children’s Hospital of Michigan Poison Control Center was consulted on fewer than 10 cases of intentional ketamine abuse during the first 10 months of 2003. There were 11 ketamine-involved treatment admissions statewide in FY 2002 and 32 such cases in FY 2003. The only reports of ketamine in southeast Michigan ED mentions between 1995 and 2002 were 1 case in 2000 and 12 cases in 2001.

Abuse of GHB and its precursor gamma butyrolactone (GBL) began to be reported in about 1997, with the number of ED mentions and poison control case reports peaking in about 1999. Use had been primarily at nightclubs and private parties; recent use appears to be more confined to gay scenes. ED mentions of GHB totaled 45 in 1999, 22 in 2000, 31 in 2001, and 15 in 2002 (exhibit 1). The Children’s Hospital of Michigan Poison Control Center GHB case reports totaled 100 in 1999, about 35 in 2000, and about one-half that many in 2001. In 2002, however, there were only about 10 cases of intentional GHB abuse reported to the poison center. It is believed that GHB is no longer reported to this source, since only five cases were reported during the first 10 months of 2003. During FY 2002, there were 4 admissions to treatment in Michigan involving GHB as the primary drug and 12 total cases in which GHB was involved. In FY 2003, there were 4 admissions statewide with GHB as primary drug and 11 total cases in which it was involved.

### Other Drugs

Inhalants continued to be reported as commonly used, mostly by teens and young adults. Paint, furniture

polish, and cleaning products were the most common inhalants, and males and females were equally likely to be inhalant users. During FY 2003, there were 115 treatment admissions statewide that involved inhalants, with more than 40 percent of these reporting inhalants as the primary drug of abuse.

A few instances of reported abuse and subsequent hospitalization involved a number of adolescents who ingested morning glory seeds or jimson weed.

Intentional abuse of Coricidin HBP cough and cold formula, the over-the-counter medicine, has been reflected in case reports to Children's Hospital of Michigan since 2000. These tablets contain dextromethorphan and chlorpheniramine. Multiple tablets are taken for a dissociative effect; use of up to 40 pills at a time has been reported. During 2000, 44 Coricidin HBP cases were reported to the poison control center, while in 2001, at least 60 cases involved this drug. Most cases were teens, and nearly two of every three cases were male. About two of every three cases required hospitalization. In 2002, about this same level of Coricidin abuse cases was reported to the poison control center. In the first 10 months of 2003, there were 58 cases of intentional Coricidin abuse reported. Almost all were made by those younger than 21, and cases were split evenly between males and females.

Abuse of cough syrup (also containing dextromethorphan) continued to be noted, with shoplifting being a common way of obtaining the substance.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

##### **HIV/AIDS**

Michigan continues to rank 17th among all States, with an AIDS case rate of 113.9 per 100,000 population. As of July 1, 2003, a cumulative total of 12,918 cases of AIDS had been reported in Michigan.

Injection drug users (IDUs) continued to account for 29 percent of total AIDS cases; 22 percent have only this risk factor and 7 percent are IDUs who also have male-to-male sex as a risk factor.

Of the 8,396 male cases currently living with AIDS or HIV, 12 percent are IDUs and 7 percent are in the dual risk group.

Among the 2,464 females living with AIDS or HIV, 28 percent are IDUs, 44 percent were infected through heterosexual contact, and 26 percent have undetermined risk factors.

Statewide, HIV prevalence is estimated at a maximum of 2,880 IDUs (a slight decrease) and 980 IDUs who also engage in male-to-male sex (a slight increase). The total HIV prevalence estimate for Michigan remains at 15,500 cases.

##### **Hepatitis C**

Recent estimates for hepatitis C cases (much of which is spread by injection drug use) in Michigan show that prevalence in the general population is about 179,000 cases, with an estimated additional 18,000 cases among the 48,000 inmates in Michigan's prison system.

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**Exhibit 1. Estimated Numbers of ED Drug Mentions in a Seven-County Area in Southeast Michigan: 1994–2002**

Drug Mentions	1994	1995	1996	1997	1998	1999	2000	2001	2002
Alcohol-in-Combination	7,220	8,379	9,087	7,984	7,992	7,199	8,447	9,109	9,004
Cocaine	8,268	8,763	10,435	8,093	8,617	7,699	7,870	7,730	7,608
Heroin/Morphine	2,160	2,390	3,188	3,028	2,879	2,653	3,328	3,870 <sup>2</sup>	3,881 <sup>2</sup>
PCP/PCP Combinations	26	56	21	19	20	24	21	38	30
LSD	99	143	57	74	27	63	...	15	---
Amphetamine	305	292	440	359	362	178	...	437	470
Methamphetamine/Speed	17	15	...	...	0	...	...	...	12
Marijuana/Hashish	2,955	3,875	4,210	3,742	4,335	4,100	4,344	5,017	6,104
GHB	... <sup>1</sup>	0	...	...	11	45	22	31	15
Ketamine	-	0	0	...	...	...	1	12	0
MDMA (Ecstasy)	...	0	0	...	6	40	60	111	108
Rohypnol	-	0	0	0	0	0	0	0	1
Hydrocodone/Combinations	89	129	165	160	185	238	371	483	654
Drug Episodes	17,653	18,626	20,796	17,604	17,477	16,125	17,042	19,265	20,979
Total Drug Mentions	31,633	34,152	38,952	32,487	32,582	30,207	32,740	38,159	40,668
Total ED Visits (in 1,000s)	1,436	1,513	1,537	1,449	1,461	1,481	1,474	1,583	1,686
Drug Episodes (rate/100,000)	432	451	498	417	409	374	388	463	502
Drug Mentions (rate/100,000)	775	828	933	770	763	700	746	893	973

<sup>1</sup>Dots (...) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.

<sup>2</sup>Heroin excludes a small, but unknown, number of morphine/combinations mentions, which have been moved to the narcotic analgesics category during this time period.

<sup>3</sup>Dashes indicate that an estimate has been suppressed because of incomplete data.

SOURCE: Adapted from DAWN, OAS, SAMHSA

**Exhibit 2 Detroit/Wayne County Positive Drug Toxicology Cases Involving Heroin or Cocaine as an Independent Cause of Death: 1995–August 2003**

Month		1995	1996	1997	1998	1999	2000	2001	2002	2003 <sup>1</sup>
January	Heroin	16	21	17	21	23	43	52	29	26
	Cocaine	31	36	29	32	21	39	50	25	25
February	Heroin	14	16	27	26	31	37	40	35	47
	Cocaine	23	29	33	27	20	27	36	28	38
March	Heroin	11	13	13	21	41	34	45	48	22
	Cocaine	28	15	29	27	33	38	39	32	31
April	Heroin	12	11	24	23	29	42	38	41	46
	Cocaine	25	33	29	35	34	24	32	37	28
May	Heroin	19	10	14	16	28	56	33	41	36
	Cocaine	36	19	22	32	33	46	27	29	37
June	Heroin	25	25	24	33	40	42	36	43	41
	Cocaine	31	32	30	38	32	32	30	38	39
July	Heroin	25	21	30	21	30	44	46	51	58
	Cocaine	27	32	26	32	25	36	42	33	40
August	Heroin	13	23	27	25	29	35	46	47	33
	Cocaine	14	29	28	25	31	36	36	44	28
September	Heroin	12	18	33	29	31	23	32	46	
	Cocaine	16	25	22	37	21	24	24	38	
October	Heroin	16	29	27	27	37	39	47	42	
	Cocaine	29	34	32	33	35	26	42	44	
November	Heroin	21	20	27	32	41	40	23	35	
	Cocaine	29	28	28	32	32	35	22	26	
December	Heroin	19	33	24	35	23	38	27	38	
	Cocaine	28	37	36	35	25	33	26	43	
Total	Heroin	203	240	287	309	383	473	465	496	
	Cocaine	317	349	344	385	342	396	406	417	

<sup>1</sup>The 2003 data are for the first 8 months only. Annual projections are 464 cases for heroin and 399 cases for cocaine.

SOURCE: Wayne County Office of the Medical Examiner Laboratory

# Illicit Drug Use in Honolulu and the State of Hawaii

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

## ABSTRACT

*It has been true for so long that it seems almost normal to suggest that Hawaii is the 'ice capital of the Nation.' The problems associated with ice now date back 15 years, and communities are expressing their will to change the status quo. During this period, residents of many communities in the State could be found lining the streets with placards reading 'No ice in our community.' Responses from politicians ranged from 'we need to study this' to 'this drug is ruining our state and needs to be stopped.' The new Governor and Lieutenant Governor emphatically placed the control of methamphetamine on their action agenda for their first year in office. The media responded with weekly and sometimes daily stories about drugs and their impact on the community. The sentinel indicators of methamphetamine use in Hawaii include increasing levels of treatment demand, more coroner toxicology reports positive for methamphetamine than for any other substance, as many as 49 percent of arrestees testing positive for methamphetamine, and anecdotal reports suggesting that ice is implicated in most child apprehensions and a significant portion of in vitro drug-exposed births. Data on other drug use during January–June 2003 show that cocaine deaths slightly increased along with related police cases, while treatment admissions declined. Heroin treatment admissions and police cases were stable, while the number of deaths may increase sharply in 2003 if patterns during the first half of the year continue. The rapid rise in use of other opiates, mainly oxycodone, tapered slightly during this period, but they are now firmly established as part of the drugs of use in the State. Marijuana remained a major drug of choice by many in Hawaii. It appeared, however, that marijuana was not as relevant to law enforcement officials as were other drugs, despite the active continuation of 'Operation Green Harvest.' MDMA (ecstasy) use was clearly present, but it does not appear to be a major problem for any of the reporting agencies.*

## INTRODUCTION

This report presents current information on illicit drug use in the city and county of Honolulu (Oahu) and the neighboring island of Hawaii, based on data presented at the Honolulu Community Epidemiology Work Group (CEWG) meeting on October 24, 2003.

Data were again not provided from the neighbor island police departments, as all reported continued staff shortages because of increased county security needs and activation of some members by the National Guard.

## Area Description

The estimated 1.3 million residents of the Aloha State are extremely tolerant of the many "prices" one pays for the privilege of living in paradise. The cost of living in Hawaii, as indexed by the Cost-of-Living-Adjustment (COLA) to Federal payroll is approximately 25 percent higher than the national average, although those who do not have access to the PX on the military bases would suggest it is considerably higher. Except for those things that were a part of the original ecosystem, everything in Hawaii is imported by sea or by air, meaning that transportation expense is a fact of life for all residents. The general wages in Hawaii are about 7 percent lower than for comparable employment on the mainland.

The complexity of survival in Hawaii is compounded by the economic dependence on tourism and civil service employment. Since the demise of the plantations at the beginning of World War II, government, in the form of military or civil service, has dominated employment throughout the State.

As has been mentioned in previous reports, the economy of Hawaii has been depressed for several years. As a result, the State had many concerns that emerged with the Iraq war. On the one hand, the strong military presence in the islands was seen as an economic opportunity, but the fact that this was not a "typical" war meant just the opposite to the State. Long deployments of navy ships, marine and army forces, as well as the activation of guard and reserves, meant that an outflow of residents occurred. Because of the unknown duration of the deployment, many military families went back to their mainland roots with their families. The net effects were all negative. Tourists do not make long trips during war periods, particularly with the threat of terrorist activities still present. The slow recovery of the mainland economy, together with the continued uncertainty in major Asian markets, has meant that predictions for the future are tentative at best.

<sup>1</sup>The author is affiliated with the Department of Sociology, University of Hawaii at Mānoa.

This report is for the period January 1, 2003, through June 30, 2003. The first female and the first Republican Governor since statehood experienced the session of the State legislature (Democratically controlled) during this period. No significant legislation was passed that impacted on the drug scene of the State.

### Data Sources

Data from the following sources are for January 1, 2003, through June 30, 2003, but are reported as annual data except as otherwise noted.

- **Drug-related death data** were provided by the Honolulu City and County Medical Examiner (ME) Office. 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 would be unattended deaths, death 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 Oahu.
- **Treatment admissions and demographic data** were provided by the Hawaii State Department of Health, Alcohol and Drug Abuse Division (ADAD). Previous data from ADAD are updated for this report whenever ADAD reviews its records. These data represent all State-supported treatment facilities (95 percent of all facilities). About 5 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 uninsured for the State is about 10 percent.
- **Law enforcement case data** were provided by the Narcotics and Vice Divisions of the Honolulu, Maui, Kauai, and Hawaii Police Departments. These data are updated whenever possible to include cases that had occurred during a previous period but were under current investigation. Data from the Honolulu Police Department (HPD) were updated for this reporting period, but no updated data were received from “neighbor island” (Maui, Kauai, and Hawaii) police departments. Additionally, because of the inconsistencies in data reporting from the neighbor island police departments, the data cannot be regarded as very reliable.

- **Arrestee testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ). The ADAM project collects its data at the Central Receiving Unit of the Honolulu Police Department. Data are presented for 2000 through the first three quarters of 2003; data for 2003 are unweighted.
- **Price data** were provided by the Honolulu Police Department, Narcotics and Vice Division.
- **Quantitative and qualitative data** were compiled from participants at the October 24, 2003, Honolulu CEWG meeting.

Emergency department drug mentions data have not been available in Hawaii since 1994, because ADAD canceled the Hawaii Emergency Department Episode Data (HEED) project. It is unlikely that HEED will be reinstated any time soon given the State’s financial situation. Discussions with the Healthcare Association of Hawaii regarding inclusion in the (DAWN) program have resulted in a briefing of all hospital CEOs and the sharing of DAWN information. Given the added burden of the cost of care of ice users and the general concern expressed at the community level, it is hoped that a meeting can be arranged between the DAWN program and the association during the coming few months.

The State of Hawaii Narcotics Enforcement Division, the High Intensity Drug Trafficking Area office and the Federal Drug Enforcement Agency, although invited, did not participate in the Honolulu CEWG meeting.

### DRUG ABUSE PATTERNS AND TRENDS

All agencies reporting to the Hawaii CEWG indicate that without question, crystal methamphetamine is their major issue. These agencies have, in the past, focused their efforts on alcohol and tobacco. However, crystal methamphetamine became the major drug of concern almost 2 years ago and that appears likely to continue for the immediate future. Heroin, cocaine, marijuana, and ice, in addition to drugs classified as “club drugs,” all form the focus of substance abuse activity over this time period.

Hawaiians and Whites remain the majority user groups within the 17 identified ethnic groups (plus 2 other categories: “other” and “unknown/blank”) accessing ADAD facilities for substance abuse treat-



ment. During the January through June 2003 period, 44.9 percent of admissions were Hawaiian and 20.9 percent were White. All other groups accounted for significantly lower proportions of admissions.

Methamphetamine was again the leading primary substance of abuse for those admitted to treatment (43.8 percent of admissions). Alcohol, the primary substance for many years, accounted for 22.6 percent. However, it is important to point out that almost all polydrug treatment admissions listed alcohol as a substance of abuse. Marijuana remained the third most frequently reported primary substance for treatment admissions (21.5 percent). Those aged 25–44, and 35–44 had the highest representations among treatment admissions at 25.4 percent and 25.2 percent, respectively. While marijuana abuse accounted for the majority of treatment admissions among those younger than 18, crystal methamphetamine remained a major treatment category for this group.

Price data for this period suggest that for the most part prices were stable, except for some minor upward price adjustments for crystal methamphetamine in smaller amounts. The size of the drug supply makes for a relatively stable drug market, with only a few market adjustments caused by seizures of specific drugs or oversupply of others.

As mentioned earlier, ice continued to dominate the Hawaiian drug market. Prices increased slightly during the reporting period, and this is likely reflective of several seizures. It is now easier to purchase larger quantities than in the past. The final police evidence of increased ice availability concerns clandestine labs. Almost exclusively reprocessing labs, these labs continued to be closed at a regular pace.

Because of a lack of security forces at neighbor island airports, and thousands of miles of coastline with only a small Coast Guard presence in the State, shipping drugs to Hawaii is relatively safe and easy. From the neighbor islands, inter-island flights are used, because of reduced security. The mainland supply chain is the main source of the material used for reprocessing as crystal methamphetamine, and the need for clandestine manufacture of the drug is not present. The purity of ice in Hawaii is reported to approach 100 percent, but no Drug Enforcement Administration price and purity reports have been received for several years.

Marijuana remained a drug for which arrest results from circumstance, bad luck, or stupidity. The Big Island Police Department continues to partner

with the Air National Guard for “Operation Green Harvest.” This program has been in operation for more than a decade, with the effort being to destroy the plants rather than to seek interdiction directly. Close to 100,000 plants are seized per half-year on the Hilo (East) side of the island and about an additional 30,000 plants are seized on the Kona (West) side of the island. Seizures in Oahu during the 2003 reporting period resulted in only 1,309 plants and 53,269 grams of dried marijuana, compared with 41,966 plants and 52,269 grams in 2002.

The Hawaii DEA continues its efforts with the Honolulu Police Department (HPD) to deal with crystal methamphetamine and, in particular, to break the supply route from California for the chemicals necessary to operate Hawaii’s ice labs. During this period, the HPD seized and closed 9 clandestine methamphetamine laboratories and seized 29,298 grams of ice and about 1,000 grams of powdered methamphetamine.

### **Cocaine/Crack**

After consistently reporting 22 to 24 deaths per year with cocaine-positive toxicology screens from 1999 through 2000, the Honolulu ME reported 142 such deaths in the first half of 2003 (exhibit 1). If this level persists for the rest of the year, there will be 28 cocaine-positive decedents by year’s end, a total not seen since 1998.

Cocaine treatment admissions in Hawaii held steady between 1996 and 1999 at 647–662 admissions each year (exhibit 1). Admissions declined to 550 in 2000, and that decline continued in 2001 ( $n=433$ ) and 2002 (428). In the first half of 2003, admissions for primary cocaine abuse totaled 184. Cocaine/crack now ranks fourth among primary drugs of treatment admissions, after methamphetamine, alcohol, and marijuana.

As shown in exhibit 2, cocaine-related police cases peaked at 1,218 in 1996 and subsequently declined, totaling only 122 in 2002. In the first half of 2003, however, cocaine-related cases totaled 105. If this level persists, such cases would total 210 in 2003, an increase over both 2001 and 2002. As noted earlier, neighbor island data were not available for 2003.

The proportions of adult male arrestees in Honolulu who tested positive for cocaine fluctuated widely in 2001 and 2002 (exhibit 3). In the first three quarters of 2003, the proportions of cocaine-positive male arrestees ranged from 9.5 to 16.1 percent.

According to the HPD, cocaine prices have remained relatively stable over the past several years. One-quarter gram of crack currently sells for \$25–\$30, and the same amount of cocaine powder costs \$25–\$35.

### Heroin and Other Opiates

Black tar heroin monopolizes the heroin market in Hawaii, and the drug is readily available in all areas of the State. “China white” has been uncommon in Hawaii, for several years, but it is available for a premium price. Seizure data normally show a 20-to-1 ratio of tar and powder seized, but in 2002 that ratio dropped to 2:1.

The Honolulu ME reported that deaths in which opiates were detected declined slightly in 2002, similar to those for heroin specifically (exhibit 4). However, if the number of deaths with positive toxicology for heroin during the first half of 2003 persists, there will be 32 such deaths for the whole year, the highest number since 1994. The number of decedents with a positive toxicological result for opiates was primarily comprised of decedents in whom oxycodone was detected. The exact medication used was not specified.

The number of heroin treatment admissions in Hawaii continued the decline begun in 1999 (exhibit 4). In the first half of 2003, heroin ranked fifth among treatment admissions, accounting for 2.9 percent of all admissions.

The HPD reported 74 heroin cases in 2000, 17 in 2001, and an increase to 49 cases in 2002 (exhibit 5). There were 23 cases in the first half of 2003, suggesting stabilization if this level continues in the second half of the year. No specific explanation was provided for either the peaks or the low points in the data.

Similar to HPD heroin cases, the proportions of adult male arrestees testing positive for opiates in Honolulu fluctuated between the first quarter of 2000 and the third quarter of 2003 (exhibit 3). In the first, second, and third quarters of 2003, those proportions increased from 2.1 to 5.4 to 6.5 percent.

According to the HPD, “China white” heroin prices remained stable in Honolulu, at \$50 per one-quarter gram, \$200 per gram, and \$5,000 per ounce. Black tar costs \$50 per one-quarter gram, \$150–\$200 per gram, and \$2,500–\$3,500 per ounce.

### Marijuana

According to the Oahu ME, from 1995 to 2000 there were 15–20 deaths per year in which marijuana was found in the specimens submitted for toxicology screening (exhibit 5). In 2001, however, there were 36 related deaths, followed by 30 in 2002. There were 23 such deaths in the first half of 2003, with an estimate of 46 deaths by year-end if the trend continues. This would be the highest number of deaths on record with a marijuana-positive toxicology.

Statewide, marijuana treatment admissions totaled 1,544 in 2001 and declined slightly to 1,514 in 2002 (exhibit 6). In the first half of 2003, there were 787 marijuana treatment admissions, mainly younger persons, often from court referrals. If that level of admissions persists for all of 2003, the admissions will total 1,574, for the year, the highest on record. In examining these treatment data, it is important to remember that the number of persons in treatment for marijuana use is now more than three times the number in treatment for the drug in 1992. It is also important to note that while marijuana is listed as the primary drug of use at admission, many of these clients also used other substances.

The HPD continues to monitor, but to not specifically report, case data for marijuana (exhibit 7). As mentioned in previous reports, possession cases are steady at about 650 per year, although distribution cases have continued to increase. Law enforcement sources speculate that much of the Big Island’s marijuana is brought to Oahu for sale.

The proportions of marijuana-positive adult male arrestees in Honolulu were second only to those positive for methamphetamine from 2000 through the third quarter of 2003 (exhibit 3). In the third quarter of 2003, 26.9 percent of adult male arrestees tested marijuana-positive.

### Methamphetamine

On the basis of several indicators, Hawaii retains its title as the crystal methamphetamine capital of the United States. It remains the drug of choice in the island chain. California-based Mexican sources use Hawaii’s cultural diversity to facilitate smuggling and distribution to and within the islands. Analyses of confiscated methamphetamine reveal that the product is still a high-quality d-methamphetamine hydrochloride in the 90–100-percent purity range.

Between 1994 and 2000, Oahu ME has mentioned crystal methamphetamine in 24–38 cases per year. In 2001, such mentions increased to 54, and they continued to increase to 62 in 2002. In the first half of 2003, 29 decedents had a positive toxicology screen for ice, suggesting a slight decline for the year-end total.

Statewide methamphetamine treatment admissions remained extremely high but stable during this reporting period, still exceeding those for alcohol. A total of 2,677 admissions occurred during 2002. That was the highest number on record, but with a 6-month admission of 1,724, may be exceeded yet again for 2003. An examination of exhibit 7 shows the trend over the past decade. The rate of increase in demand for treatment space for methamphetamine has been nearly geometric and not linear. This situation has so far outstripped the treatment system's capacity that even people who might want treatment would not be likely to receive it in a timely manner. With court diversion programs in place, the available treatment slots for non-judicial treatment is extremely tight.

If the level of HPD methamphetamine cases in the first half of 2003 continues for the rest of the year, there will be 1,050 cases for 2003, the highest number on record (exhibit 8). The previous highest annual number of cases was recorded in 1995 (984), but that total subsequently declined annually. No 2003 data were available from the neighbor islands.

The final piece of information on Hawaii's leading drug is from ADAM, and the report is a bit better than at the last report. In terms of crystal methamphetamine, weighted data for 2001 are compared to the weighted 2002 data and show that the drug most frequently found in the urines of the arrestees was amphetamines, almost entirely methamphetamine. The 2003 data are unweighted and usually go up slightly once the census data on arrests are applied. The proportion of arrestees with positive toxicology screens for methamphetamine was almost 50 percent and now is likely in the low to mid-40s. That figure was up from the 2000 data of about 37 percent and from the 2001 data of about 45 percent.

Crystal methamphetamine prices have remained stable during this period for larger quantities. It is sold in the islands as "clear" (a cleaner, white form) or "wash" (a brownish, less processed form). Prices for ice varied widely according to these two categories and availability, as illustrated by prices on Oahu: \$50 (wash) or \$75 (clear) per one-quarter gram; \$200–\$300 (wash) or \$600–\$900 (clear) per gram; \$450–\$600 (wash) or \$1,000–\$2,000 (clear) per one-quarter ounce and \$2,200–\$3,000 (wash) per ounce.

### Depressants

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

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

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 system. Annually the numbers admitted to treatment for these drugs are less than 10.

The HPD has not reported depressant case data since 1991. Neighbor island police report fewer than 15 cases per year since 1996.

Prices remain stable at \$3–\$20 per unit for barbiturates and \$2–\$3 per pill for secobarbital (Seconal or "reds").

### Hallucinogens

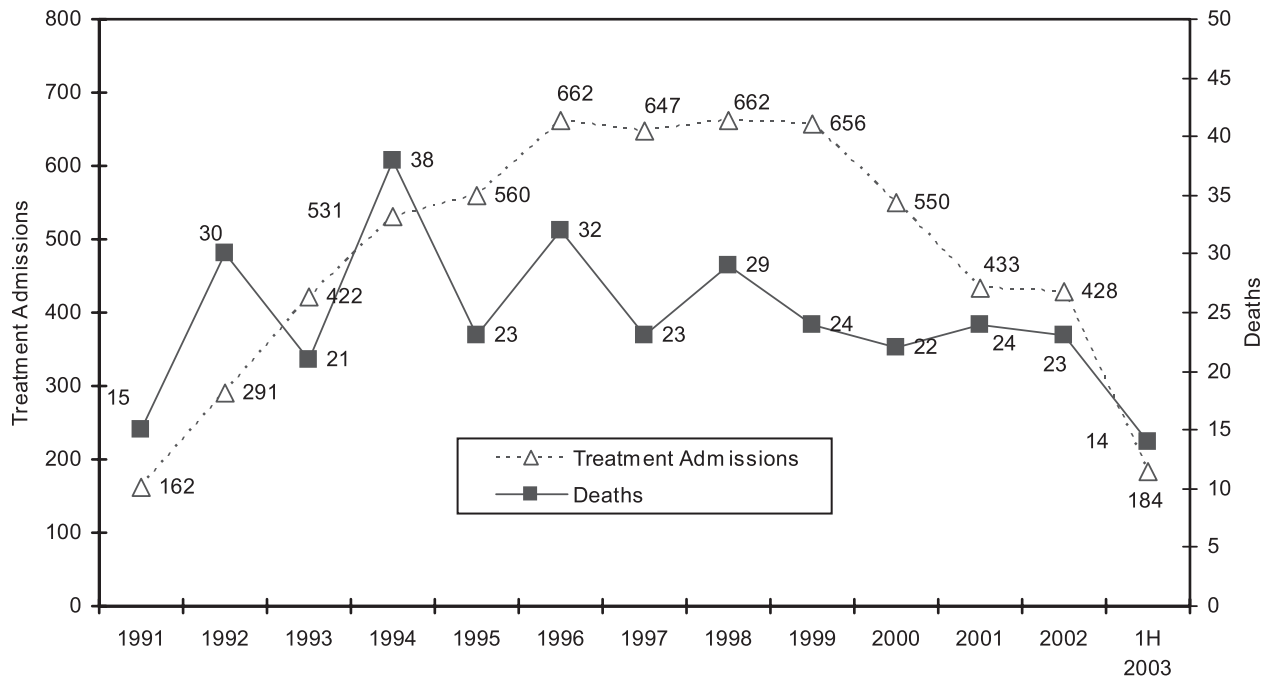
No hallucinogen ME mentions have been reported since the beginning of data collection. Hallucinogen treatment admissions total less than 5 per year.

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

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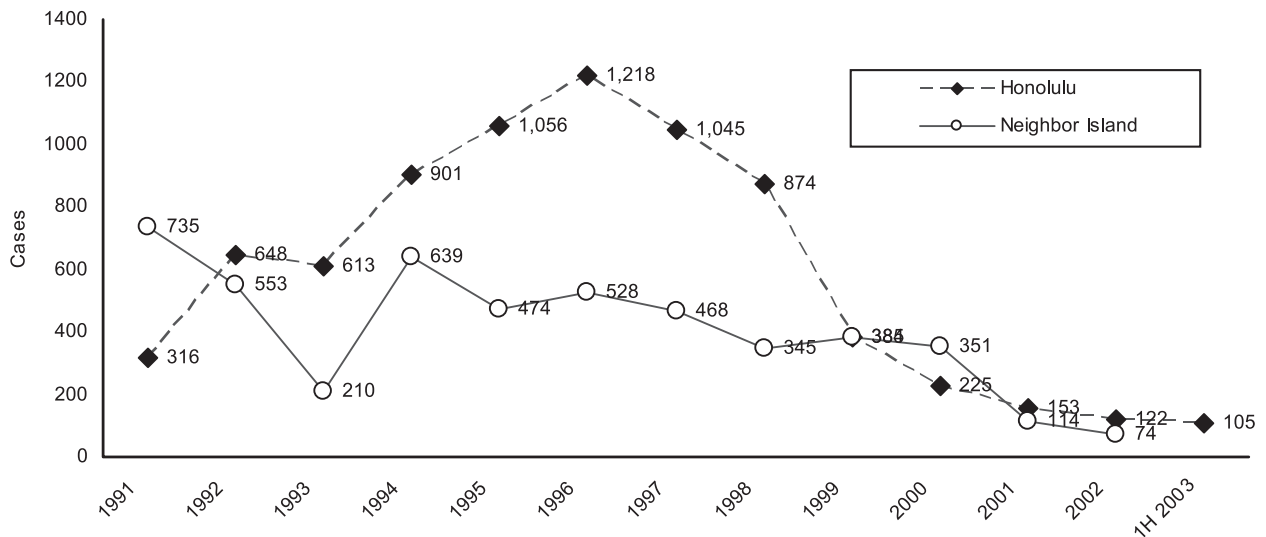
*For inquiries concerning this report, please contact D. William Wood, Ph.D., University of Hawaii at Manoa, Department of Sociology, 265 North Kalaheo Avenue, Honolulu, HI 96822, Phone: 250-384-3748, Fax: 808-9565-3707, E-mail: dwwood@shaw.ca.*

**Exhibit 1. Numbers of Cocaine Deaths in Oahu and Cocaine Treatment Admissions in Hawaii: 1991–1H 2003**



SOURCES: Honolulu City and County ME Office and Hawaii State Department of Health, ADAD

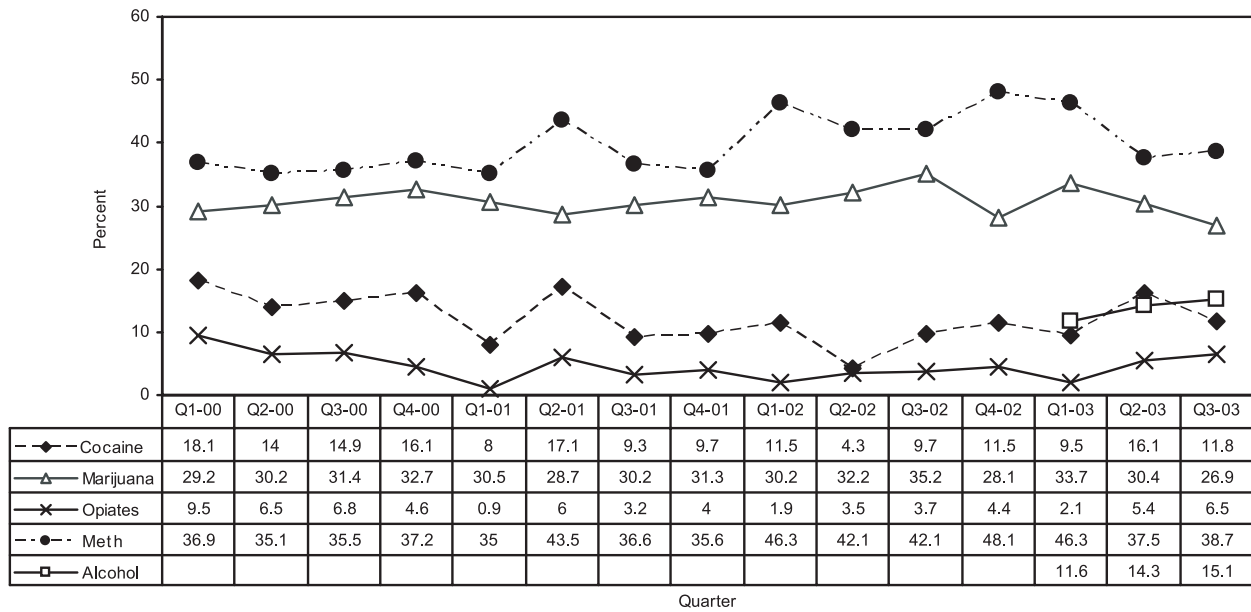
**Exhibit 2. Numbers of Cocaine-Related Police Cases in Honolulu and Neighbor Islands: 1991–1H2003<sup>1</sup>**



<sup>1</sup>Neighbor island police data were not available for the first half of 2003.

SOURCES: Honolulu, Maui, Kauai, and Hawaii Police Departments

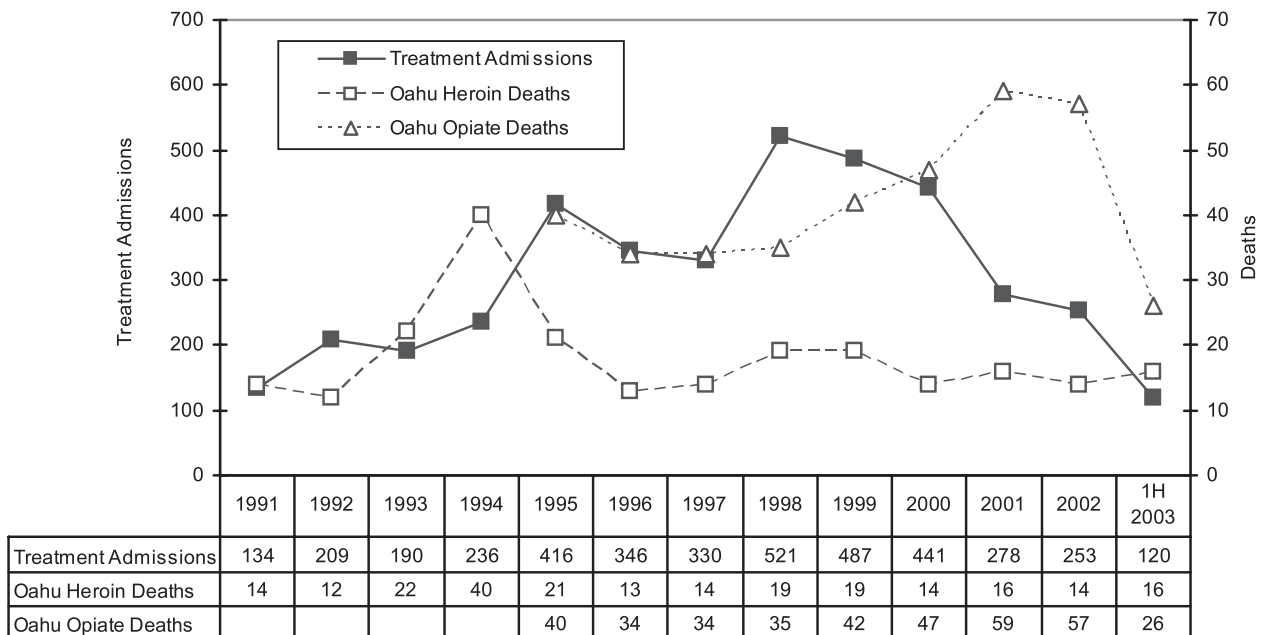
**Exhibit 3. Percentage of Adult Male Arrestees Testing Positive for Drugs in Honolulu, by Type: First Quarter 2000–Third Quarter 2003<sup>1</sup>**



<sup>1</sup>Data for 2000–2002 are weighted; data for 2003 are unweighted.

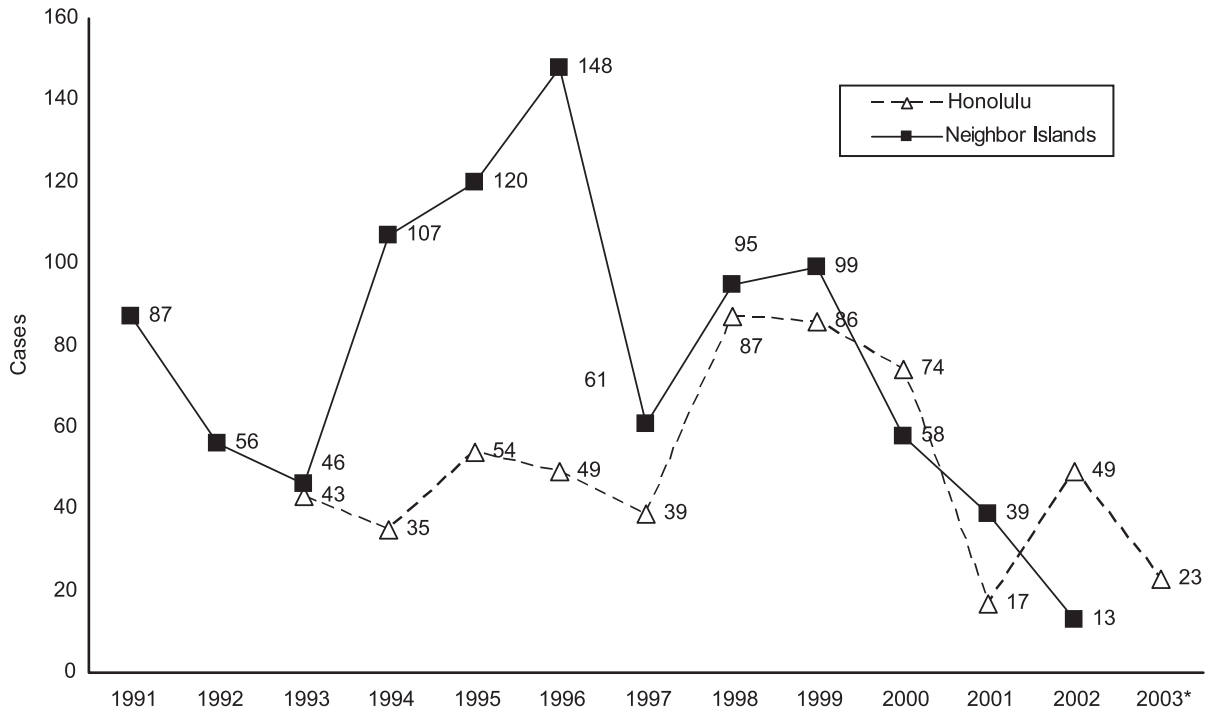
SOURCE: ADAM, NIJ

**Exhibit 4. Numbers of Heroin and Opiate Deaths in Oahu and Heroin Treatment Admissions in Hawaii: 1991–1H 2003**



SOURCES: Honolulu City and County ME Office and Hawaii State Department of Health, ADAD

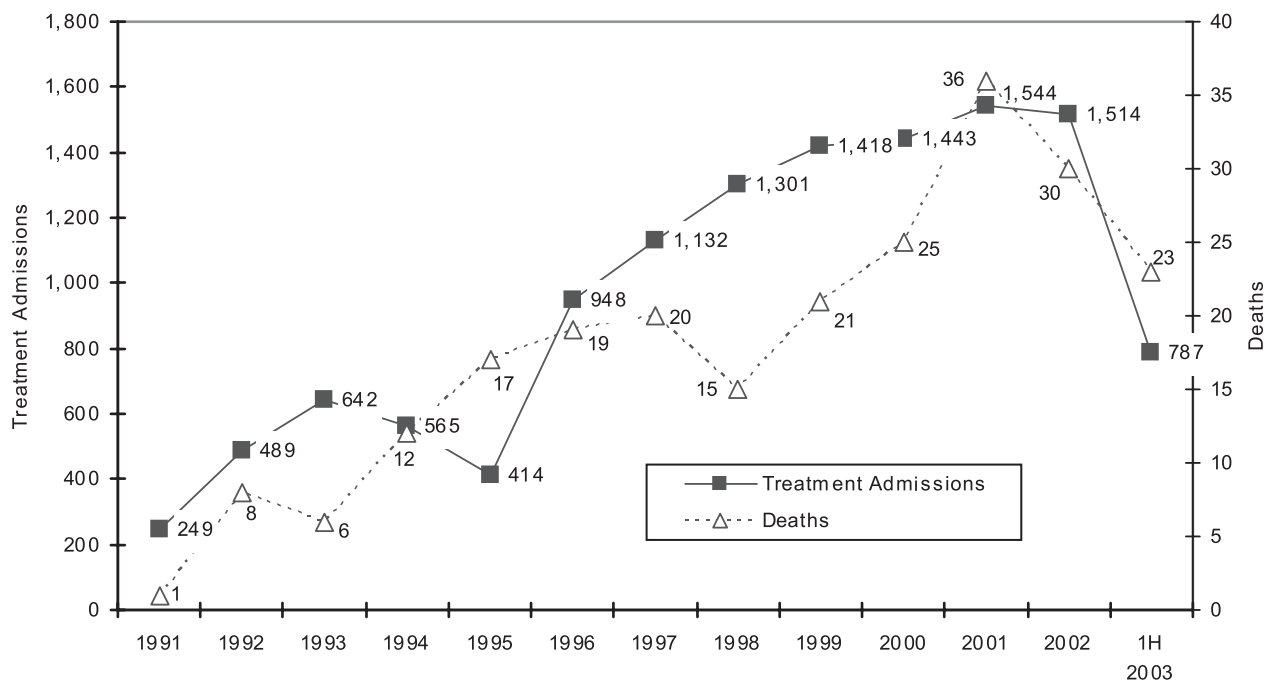
**Exhibit 5. Numbers of Heroin-Related Police Cases in Honolulu and Neighbor Islands: 1991–1H 2003<sup>1</sup>**



<sup>1</sup>Neighbor island police data were not available for the first half of 2003.

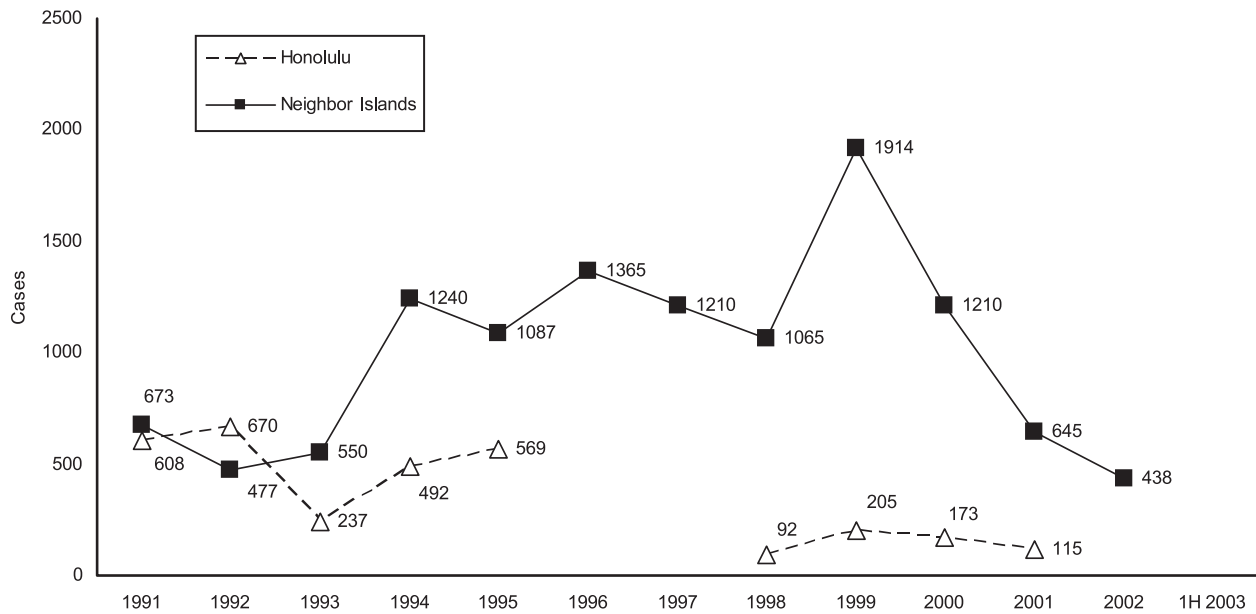
SOURCES: Honolulu, Maui, Kauai, and Hawaii Police Departments

**Exhibit 6. Marijuana Deaths in Oahu and Marijuana Treatment Admissions in Hawaii: 1991–1H 2003**



SOURCES: Honolulu city and County ME Office and Hawaii State Department of Health, ADAD Treatment Admissions

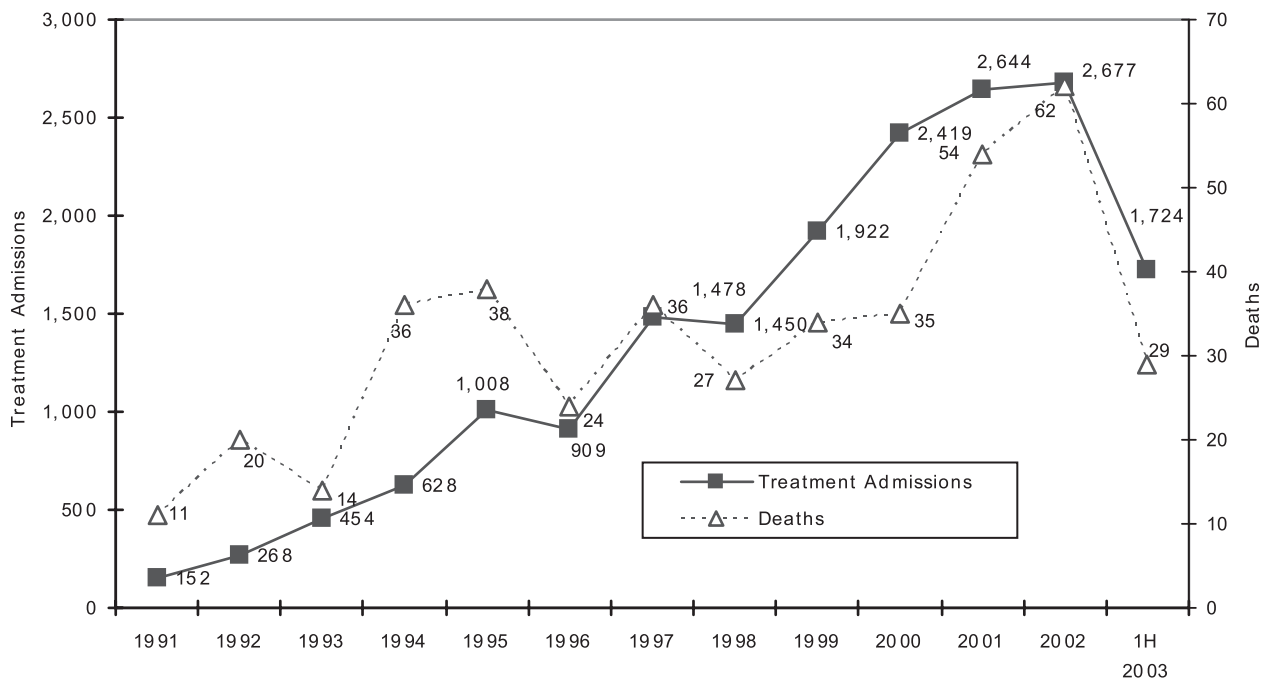
**Exhibit 7. Numbers of Marijuana-Related Police Cases in Honolulu and Neighbor Islands: 1991–1H 2003<sup>1</sup>**



<sup>1</sup>Neighbor island police data were not available for all years.

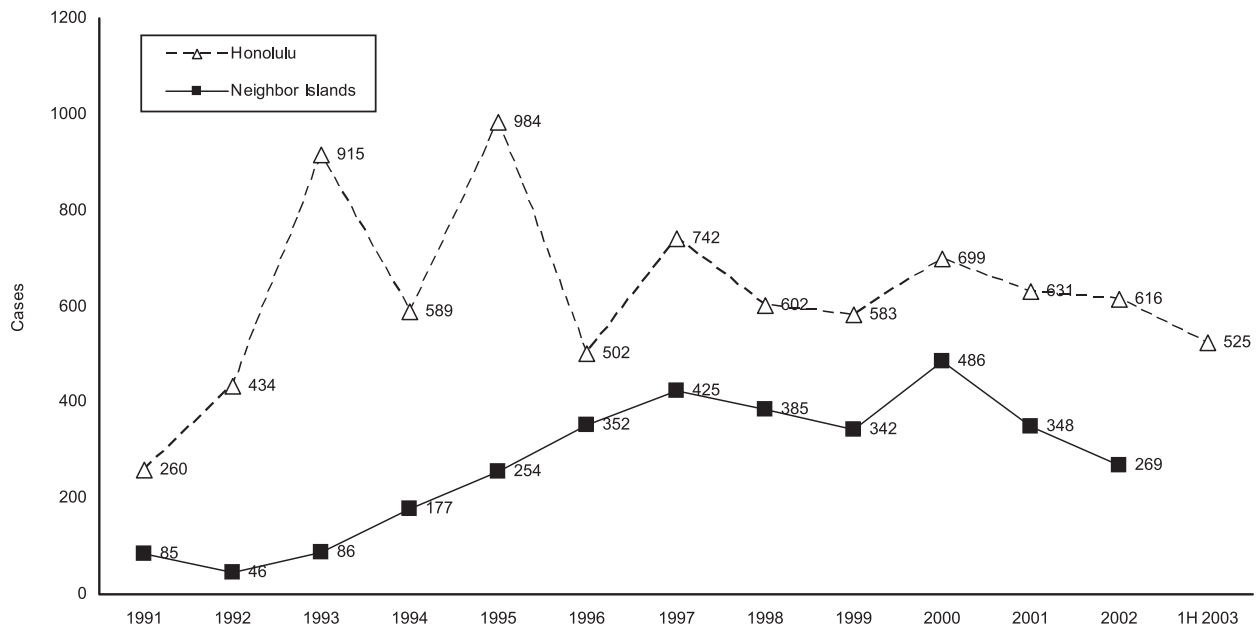
SOURCES: Honolulu, Maui, Kauai, and Hawaii Police Departments

**Exhibit 8. Numbers of Methamphetamine Deaths in Oahu and Methamphetamine Treatment Admissions in Hawaii: 1991–1H 2003**



SOURCES: Honolulu City and County ME Office and Hawaii State Department of Health, ADAD

**Exhibit 9. Numbers of Methamphetamine-Related Police Cases in Honolulu and Neighbor Islands: 1991–1H 2003<sup>1</sup>**



<sup>1</sup>Neighbor island police data were not available for the first half of 2003

SOURCES: Honolulu, Maui, Kauai, and Hawaii Police Departments



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

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

## ABSTRACT

*Los Angeles County illicit drug trends remain relatively stable, compared with the trends reported in June 2003. Given that Los Angeles is a primary market for all major drugs of abuse, residents have ready access to almost any illicit drug and many diverted pharmaceuticals. Heroin, crack cocaine, and methamphetamine are the three principal illicit drugs, in terms of the extent of abuse and the negative consequences associated with their use and abuse. These drugs continue to dominate many of the traditional substance abuse indicators. The proportion of heroin treatment admissions fell farther in the first half of 2003 to 25 percent. Although they constitute the largest percentage of all treatment and recovery admissions, their lead over the other major substances, such as alcohol, cocaine, methamphetamine, and marijuana, was marginal. Cocaine/crack admissions remained stable at 20 percent, whereas admissions for primary methamphetamine abuse continued to climb in early 2003; methamphetamine admissions accounted for 18 percent of all admissions. In terms of user demographics, the proportion of Hispanic methamphetamine admissions continued to increase. No significant changes in the estimated number of ED mentions of the major substances of abuse occurred from 2001 to 2002. From January to March 2003, more than one-half of a sample of city of Pasadena male arrestees who participated in the ADAM program tested positive for recent marijuana use, followed by cocaine (25 percent) and methamphetamine (9 percent). Once again, the Los Angeles HIDTA led all California HIDTAs in terms of clandestine methamphetamine laboratory seizures, accounting for 56 percent of the 749 seizures made in California between January and November 2003. Los Angeles City arrests for most drugs increased from the first half of 2002 to the first half of 2003. Drug prices and purities were relatively stable in the first half of 2003. Secondary school survey data from 2002–2003 indicated that the percentages of 7th, 9th, and 11th graders, and non-traditional students who reported past-30-day use of several substances, including alcohol, marijuana, cocaine, and LSD/other psychedelics were either stable or down from percentages reported in 2001–2002. Indicator data for prescription drugs, PCP, LSD, MDMA (ecstasy), and GHB remained lim-*

*ited, but anecdotal evidence and existing data sources suggested that the drugs are used recreationally and abused.*

## INTRODUCTION

### Area Description

Los Angeles County has the largest population (9,979,618 as of January 2003) 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. Nearly 90 percent of all Los Angeles County residents live within 88 incorporated cities; the remaining 10 percent reside in unincorporated 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).

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.

Two of the busiest maritime ports in the world—Long Beach and Los Angeles—are located in Los Angeles County. The Port of Long Beach is the Nation's busiest maritime cargo container facility, while the Port of Los Angeles ranks second, according to a report by the National Drug Intelligence Center (NDIC) in 2001. Los Angeles County is also home to the world's third busiest airport—Los Angeles International Airport. The airport handles more than 1,000 cargo flights each day; 50 percent of this activity is international in origin or destination (NDIC 2001).

Residents of Los Angeles County primarily rely on automobiles for transportation, and the Los Angeles area has one of the most intricate highway systems in the world. Of these, Interstates 5, 10, and 15 connect the area to the rest of the Nation. Interstate 5 runs

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from the U.S.-Canada border to the U.S.-Mexico border and links Los Angeles to other key west coast cities, such as San Diego, Oakland, San Francisco, Sacramento, Portland, and Seattle. Interstate 10 originates in Santa Monica, California, and runs across the United States to I-95 in Jacksonville, Florida. Interstate 15 originates in the area and runs northeast through Las Vegas, Nevada, to the U.S.-Canada border in Montana. In addition, State highways 1 and 101 are extensively traveled roadways.

California is one of the most active drug smuggling and production areas in the United States. This is due, in part, to the State's proximity to the Pacific Ocean and Mexico. Los Angeles is a national-level transportation hub and distribution center for many illicit drugs, including cocaine/crack, heroin, marijuana, and methamphetamine. Not only are all major drugs of abuse readily available to Los Angeles County residents, but the Los Angeles metropolitan area is a primary market for the transportation of and distribution of all major illicit drugs to other regions of the United States (NDIC 2003).

#### Data Sources

This report describes drug abuse trends in Los Angeles County from January 1996 to June 2003. Information was collected from the following sources:

- **Emergency department (ED) drug mentions data** were accessed from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for January 1998–December 2002.
- **Drug treatment data** were derived from the California Department of Alcohol and Drug Programs (ADP), California Alcohol and Drug Data System (CADDs), and correspond to Los Angeles County alcohol and other drug treatment and recovery program admissions from July 2000 to June 2003. 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.
- **Arrestee drug use and urinalysis data** were accessed from the National Institute of Justice (NIJ), Arrestee Drug Abuse Monitoring (ADAM) program, for the third and fourth quarters of 2002 and the first quarter 2003 for males and for the fourth quarter of 2002 and the first quarter of 2003 for females.
- **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 Intelligence Center, and the Drug Enforcement Administration (DEA).
- **Drug analysis** results from local forensic laboratories were derived from the Drug Enforcement Administration, National Forensic Laboratory Information System (NFLIS). The statistics correspond to items analyzed between October 1, 2002, and September 30, 2003. It is important to note that data from the Los Angeles County Sheriff's Department laboratory are complete, but data from the LAPD laboratory are not complete for some months.
- **Demographic and geographic data** were provided by the United Way of Greater Los Angeles, Los Angeles County Online, and the Los Angeles County Department of Health Services, Public Health.
- **Adolescent substance use data** were accessed from the Los Angeles County-level California Healthy Kids Survey (CHKS) data for the 1997–1998, 1998–1999, 1999–2000, 2000–2001, 2001–2002, and 2002–2003 school years from WestEd. 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. One module is comprised of questions on alcohol, drug, and tobacco use, and attitudes associated with perceived use, harm, and availability.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** (cumulative through December 2002) were provided

ed by the Los Angeles County Department of Health Services, HIV Epidemiology Program, Advanced HIV (AIDS) Quarterly Surveillance Summary, January 15, 2003.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

Cocaine/crack is second only to alcohol-in-combination in terms of the frequency of Los Angeles-Long Beach metropolitan area ED mentions. In 2002, cocaine/crack mentions accounted for 21 percent of all ED mentions, and cocaine/crack was a factor in 38 percent of all ED drug episodes (exhibit 1). As shown in exhibits 1 and 2, ED cocaine/crack mentions totaled 9,364 in 2002, a nonsignificant decrease of 6 percent from 2001.

Of the estimated 9,364 ED cocaine/crack mentions reported in 2002, 68 percent occurred among males, 44 percent among Blacks, and 62 percent among individuals age 35 and older. Significant declines in the frequency of mentions occurred from 2000 to 2002 among patients age 26–34 (17 percent), more specifically among those age 26–29 (23 percent). Close to 75 percent of all ED cocaine mentions were part of multidrug episodes. In these instances, at least one other substance (including alcohol) was mentioned during the episode. When asked about drug use motive, 49 percent of the patients reported cocaine dependence. Interestingly, the proportion of patients reporting suicide as their main drug use motive increased significantly (159 percent) from 2001 (273 mentions, 3 percent of all episodes) to 2002 (706 instances, 8 percent of all episodes). When asked why they visited the ED, 40 percent reported an unexpected reaction to the drug, and an additional 33 percent reported chronic effects of cocaine.

Although the estimated rate per 100,000 population of Los Angeles-Long Beach cocaine ED mentions did not change significantly from 2001 (117) to 2002 (108), it did increase significantly (77 percent) from 1995 (61) to 2002. With regards to 2002 population-adjusted rates of ED cocaine mentions in the six western CEWG sites (Denver, Los Angeles, Phoenix, San Diego, San Francisco, and Seattle), Los Angeles ranked third after Seattle (164) and San Francisco (150) (exhibit 3). In terms of the rate of cocaine ED mentions among ED patients in Los Angeles by gender and age, a higher rate was seen among males (150) than females (65), and the rate was highest among those age 35–44 (219).

Approximately 19 percent of all Los Angeles County treatment and recovery program admissions in January–June 2003 reported crack or powder cocaine as the primary drug of abuse (exhibit 4). As a percentage of the total, cocaine admissions have represented between 17 and 20 percent for several CEWG reporting periods. Demographics of primary cocaine admissions have stabilized as well. Alcohol was the most commonly reported secondary drug of abuse among primary cocaine admissions (41 percent) for several reporting periods, followed by marijuana (19 percent). Smokers dominated primary cocaine treatment admissions, followed by inhalers (10 percent) (exhibit 5). When asked whether they had used any drug intravenously in the year prior to admission, slightly less than 5 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 6).

Sixty-five percent of the primary cocaine admissions reported in the first half of 2003 were male. Black non-Hispanics continued to dominate cocaine admissions (at 57 percent), followed by Hispanics (21 percent) and White non-Hispanics (13 percent). In terms of age at admission, the majority of cocaine admissions were age 36 or older (63 percent), and an additional 25 percent of all primary cocaine admissions were between the ages of 26 and 35.

One-third of all primary cocaine/crack treatment admissions were homeless at the time of admission, and slightly less than one-quarter (24 percent) were referred by the court or criminal justice system (exhibit 6). Thirty-four percent did not have a history of prior treatment episodes, and an additional 30 percent had a history of one prior treatment episode. Forty-five percent had graduated from high school. At the time of admission, 13 percent were employed full- or part-time.

According to CHKS data for the 2002–2003 school year, 9.5 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 cocaine (crack or powder), and 4.7 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, 6.3 percent had ever used cocaine and 3.4 percent were current cocaine users (exhibit 7). A higher percentage of 11th graders than 9th graders and a higher percentage of non-traditional students than 11th graders reported lifetime cocaine/crack use.

According to long-term trends calculated from CHKS data spanning over the most recent 5 school years (exhibit 8), the pattern of past-30-day cocaine (powder or crack) use among responding secondary school students (in grades 7, 9, and 11, and a small sample of non-traditional students) was similar to usage patterns for some of the other licit and illicit drugs, such as LSD/other psychedelics and methamphetamine. Past-30-day cocaine/crack use continued to decrease from the peak level seen in 1999–2000 (4.9 percent) to 3.8 percent in 2002–2003.

According to recent ADAM data collected from a sample of Pasadena adult male arrestees during the first quarter of 2003, 24.6 percent tested positive for recent cocaine use on urinalysis (exhibit 9). This is slightly lower than the proportions seen in the third (33.4) and fourth (30.4) quarters of 2002. Unweighted adult female program findings for the first quarter of 2003 showed that 38.5 percent of females tested positive for recent cocaine use, compared with 21.4 percent in the fourth quarter of 2002 (exhibit 9).

A total of 1,895 cocaine arrests were made within the city of Los Angeles in the first half of 2003. This represented a 54-percent increase from the number of cocaine arrests made in the first half of 2002. Cocaine arrests accounted for 13 percent of all narcotics arrests made in the first half of 2003.

Citywide cocaine (including crack and powder) seizures decreased 12 percent, from 531 pounds seized in the first half of 2002 to 466 pounds seized in the first half of 2003. The street value of the seized cocaine accounted for 29 percent of the total street value of all drugs seized in the first half of 2003.

Data from NFLIS recently became available to CEWG members. According to data based on 46,230 analyzed items reported by participating laboratories within Los Angeles County between October 2002 and September 2003, 34 percent (15,769) of all items analyzed were found to be cocaine/crack.

Cocaine continues to be widely available throughout Los Angeles County. Current midlevel prices of crack cocaine remained level at \$500–\$1,200 per ounce, whereas the retail price range broadened from \$10 per rock to \$10–\$100 per rock (exhibit 10). 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 June 2003 CEWG report. The current midlevel and retail prices of powder cocaine remained stable, as well, at \$500–\$600 per ounce and \$80 per gram (exhibit 10). The purity of

powder cocaine is approximately 78 percent, similar to the purity cited in the last few CEWG reports.

The large and stable Los Angeles cocaine market is a primary market for the drug, as reported in the 2003 National Drug Threat Assessment. Mexican criminal groups and drug trafficking organizations (DTOs) control the wholesale distribution of cocaine. Colombian wholesale distributors are present, as well. Local Hispanic and African-American gangs dominate the street-level distribution of both powder and crack cocaine.

### Heroin

Heroin was the fourth most frequently mentioned major substance of abuse in the Los Angeles-Long Beach metropolitan area in 2002, accounting for approximately 6 percent of all DAWN ED drug mentions (exhibit 1). Heroin was a factor in 10 percent of all ED drug episodes. As shown in exhibits 1 and 2, ED heroin mentions totaled 2,525 in 2002, a nonsignificant decrease of 12 percent from 2001. ED heroin mentions decreased significantly (21 percent) from 2000 to 2002.

Of the estimated 2,525 ED heroin mentions reported in 2002, 74 percent were for male patients. The proportions of White, Black, and Hispanic patients decreased significantly from 2000 to 2002 (by 24, 22, and 25 percent, respectively). In 2002, Hispanics continued to account for the highest proportion of the total, at 38 percent. White patients accounted for an additional 32 percent, followed by Blacks (17 percent); race of the patient was unknown in 12 percent of the mentions. Like ED cocaine mentions, the highest percentage of heroin mentions were among the 35-and-older patient group (72 percent). From 2001 to 2002, the frequency of heroin mentions among 26–29-year-olds declined significantly (by 31 percent). In addition, statistically significant decreases occurred between 2000 and 2002 among 26–34-year-olds (a 31-percent decrease) and patients age 35 and older (an 18-percent decrease).

Slightly more than 50 percent of all ED heroin mentions reported in 2002 were made during multidrug episodes. Heroin dependence was reported as the drug use motive for the vast majority (82 percent) of patients who mentioned heroin during their drug-related ED episode. Despite the fact that suicide was mentioned as the drug use motive only 3 percent of the time, the frequency of this motive increased significantly (114 percent) from 2001 to 2002.

Chronic effects (44 percent) and overdose (27 percent) were the first and second most frequently mentioned reasons for ED contact. However, the proportions of those reporting chronic effects or overdose decreased significantly from 2000 to 2002 (by 21 percent and 30 percent, respectively). In terms of patient disposition among heroin mentions, slightly more patients were admitted to the hospital (46 percent) than were treated in the ED and released (44 percent).

The estimated population-adjusted rate of heroin ED mentions in the Los Angeles-Long Beach metropolitan area decreased significantly (21 percent) from 2000 to 2002 to 29 per 100,000 population. For population-adjusted rates of ED heroin mentions in the six western CEWG cities, San Francisco continued to lead the group, with 171 mentions per 100,000 population. Seattle lagged behind, with a rate of 128 per 100,000, and Phoenix and San Diego had rates nearly identical to Los Angeles (23 and 28, respectively) (exhibit 3). In terms of the rate of heroin ED mentions in Los Angeles by gender and age, a higher rate was seen among males (44) than females (14), and the rate was highest among 45–54-year-olds (62).

The proportion of primary heroin admissions among all Los Angeles County treatment and recovery programs continued to decrease, from nearly 33 percent of all admissions (7,767 admissions) in January–June 2002 to 25 percent (6,891 admissions) in January–June 2003 (exhibit 4). Despite this consistent decline, heroin admissions marginally account for the highest percentage of all treatment and recovery program admissions in the county. In the first half of 2003, primary heroin admissions were predominantly male (72 percent), older than 35 (72 percent), and somewhat more likely to be Hispanic (42 percent) than White non-Hispanic (38 percent) or Black non-Hispanic (11 percent) (exhibit 5). Compared with other major types of illicit drug admissions, primary heroin admissions from the first half of 2003 had the largest proportion of users age 36 and older. If primary heroin admissions abused another drug secondarily to heroin, it was most likely to be cocaine/crack (23 percent), followed by alcohol (11 percent). Eighty-six percent of the primary heroin admissions injected heroin, 9 percent smoked the drug, and 4 percent snorted (inhaled) the drug. When asked whether they had used any drug intravenously in the year prior to admission, 89 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 (exhibit 6).

Fourteen percent of all primary heroin admissions

were homeless at time of admission, and only 5 percent were referred by the court or criminal justice system (exhibit 6). Fourteen percent indicated that they had never received treatment for their substance abuse problem. One-half of all primary heroin admissions graduated from high school, and, at the time of admission, 22 percent were employed full- or part-time.

According to CHKS data for the 2002–2003 school year, 3.6 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 heroin. A breakdown of the data by grade level showed that 1.4 percent of responding 7th graders, 3.3 percent of responding 9th graders, 2.3 percent of responding 11th graders, and 7.2 percent of responding non-traditional students had ever used heroin (exhibit 7).

According to recent ADAM data collected from a sample of Pasadena adult male arrestees during the first quarter of 2003, an average of 1.9 percent tested positive (on urinalysis) for recent opiate use (exhibit 9). This is a decrease from the percentages reported in the third (6.4) and fourth (5.2) quarters of 2002. Whereas 14.3 percent of female arrestees tested positive for recent opiate use in the fourth quarter of 2002, unweighted adult female program findings for the first quarter of 2003 showed that no female arrestees tested positive for recent opiate use during that 3-month time period.

A total of 5,100 heroin arrests were made within the city of Los Angeles in the first half of 2003. This represented a 20-percent increase from the number of heroin arrests made during the same time period in 2002. Heroin arrests accounted for approximately 34 percent of all narcotics arrests made from January 1, 2003, to June 30, 2003.

Seven pounds of black tar heroin were seized within the city of Los Angeles in the first half of 2003, a decline of 52 percent from the amount seized in the first 6 months of 2002. Similarly, seizures of other types of heroin decreased 14 percent, from 10 pounds seized in the first half of 2002 to 8 pounds seized during the same 6-month time period in 2003. The street value of all seized heroin accounted for approximately 5 percent of the total street value of all drugs seized in the first half of 2003.

According to NFLIS data based on 46,230 analyzed items reported by participating laboratories within Los Angeles County between October 2002 and September 2003, only 3.6 percent (1,674) of all items

analyzed were found to be heroin.

Not only is Los Angeles the largest heroin market in the western United States, the region is the largest black tar heroin market in the whole country. In addition, Mexican black tar heroin is the heroin of choice among Los Angeles County users. Mexican criminal groups control the wholesale, midlevel, and retail activity. African-American and Hispanic gangs control a large portion of the retail distribution, as well (NDIC 2003). The purity level (for 1-gram samples) for 28 qualified samples (the source for all samples was identified as Mexico) purchased in 2002 as part of the DEA Domestic Monitoring Program (DMP) ranged from 9.0 to 13.9 percent. The average purity was 26.5 percent, and the samples cost \$0.30 per milligram pure. The wholesale price per kilogram of black tar heroin is approximately \$20,000 (similar to the wholesale price range reported in June 2003). The current mid-level and retail prices are \$500–\$800 per “pedazo” (Mexican ounce) and \$90–\$100 per gram (exhibit 10). A regular ounce is 28.5 grams, whereas a pedazo is 25.0 grams.

In November and December 2002, a DMP Geo-Probe was conducted in Huntington Park, a city within Los Angeles County, in response to reports of high-purity heroin being sold at the retail level in the area. The five heroin purchases were determined to be Mexican heroin and averaged 25.8 percent pure and \$0.29 per milligram pure. Although the average price and purity was consistent with the levels seen with the other Los Angeles purchases, it should be noted that one sample was determined to be 49 percent pure.

Mexican brown powder heroin sells for a wholesale price of \$25,000 per kilogram, when available in the area. Chinese, Nigerian, and Thai criminal justice groups facilitate the distribution of Southeast Asian heroin (i.e., China white) from Los Angeles to other major drug markets (NDIC 2003). Although retail distribution to local residents is limited, this form of heroin has a wholesale price range of \$35,000–\$40,000 for a 300–350-gram unit and \$70,000–\$80,000 for a 700–750-gram unit. The lack of China white on the streets is related, in part, to local users’ preference for black tar.

The LA HIDTA and NDIC continue to report that Colombian drug trafficking organizations may be establishing networks within the Los Angeles area to distribute South American heroin. The wholesale price for a kilogram of Colombian heroin is \$86,000–\$100,000. This type of heroin has a purity level of 94 percent. The LA HIDTA also reports that

because the Los Angeles metropolitan area has one of the largest Middle Eastern populations in the United States, Southwest Asian opium trafficking activities have increased in the area. Southwest Asian opium has a wholesale cost of \$25,000 for a kilogram and \$650–\$800 for an 18-gram stick.

### Other Opiates/Narcotics

An estimated 2,403 ED narcotic analgesics/combinations mentions were reported in Los Angeles-Long Beach in 2002, a statistically significant increase from 1995. Of these, nearly three-quarters were mentions of a single formulation narcotic analgesic. The remaining mentions were for narcotic analgesics produced in combination. Forty-five percent of the narcotic analgesics/combinations were not otherwise specified (NOS). Other frequently mentioned narcotic analgesics/combinations included codeine/combinations, hydrocodone/combinations, oxycodone/combinations, and methadone. Fifty-two percent of the codeine/combinations were acetaminophen-codeine. Nearly all of the 500 hydrocodone/combinations mentions were mentioned as an acetaminophen-hydrocodone combination (98 percent). Fifty-one of the 69 oxycodone/combinations mentions were for oxycodone alone (74 percent); an additional 20 percent were for an acetaminophen-oxycodone combination. Mentions of methadone have fluctuated over the years, they increased significantly (180 percent) from 2000 ( $n=137$ ) to 2002 (384).

Between January and June 2003, 582 (2.1 percent of all admissions) Los Angeles County treatment and recovery program admissions reported other opiates/synthetics as their primary drug of choice. This number was 43 percent higher than the number of primary other opiates/synthetic admissions reported in the second half of 2002 ( $n=408$ ). Other opiates/synthetics admissions were typically male (60 percent), White non-Hispanic (75 percent), and age 36–44 (32 percent).

Approximately 650 of the 46,230 items analyzed and reported to the NFLIS system were pharmaceutical medications (as opposed to illicit substances). Of those, 41 percent (270 items) were found to be analgesics. The most frequently cited analgesics were hydrocodone (129 items) and codeine (77 items). Other analgesics included oxycodone, methadone, and morphine.

According to LA CLEAR, Vicodin, a member of the hydrocodone family of opiate pain relievers, continues to retail for \$5 to \$10 per tablet in Los Angeles

County. The diversion of and popularity of Vicodin has increased greatly in the last 10 years. OxyContin, the trade name for the powerful analgesic oxycodone hydrochloride, sells on the streets for \$1 per milligram. LA CLEAR reports that there have been increases in the prevalence of burglaries, thefts, and robberies of residences and pharmacies. Codeine sells for \$5 per tablet.

### **Marijuana**

Marijuana was the third most frequently mentioned major substance of abuse in the Los Angeles-Long Beach metropolitan area in 2002, accounting for 13 percent of all ED drug mentions (exhibit 1). Marijuana was a factor in 23 percent of all ED drug episodes. Of the estimated 5,593 ED marijuana mentions reported in 2002, 66 percent were among patients who were male, 27 percent were among Hispanics, and 20 percent were among Whites. The majority of the ED marijuana mentions occurred during multidrug episodes; only about 15 percent occurred during an episode in which marijuana was the only drug mentioned. When asked about drug use motive, 25 percent of the mentions were among patients reporting marijuana dependence. Sixty-two percent represented patients who were admitted to the hospital, compared with 36 percent who were treated in the ED and released.

The estimated rate per 100,000 population of ED marijuana mentions did not change significantly from 2001 (67) to 2002 (64). With regard to population-adjusted ED marijuana mentions in the six western CEWG sites, Seattle led the group in 2002 with a rate of 65 (exhibit 3). Phoenix and San Diego followed closely, each with a rate of 46 per 100,000 population. Denver, with 38 mentions per 100,000 population, and San Francisco, with 39 per 100,000, rounded out the group. In terms of the rate of marijuana ED mentions in Los Angeles by gender and age, a higher rate was seen among males (86) than females (43), and the rate was highest among 18–19-year-olds (157).

The number of primary marijuana treatment admissions in Los Angeles County continued to increase another 30 percent from July–December 2002 (when they accounted for 12 percent of all admissions) to January–June 2003 (when they accounted for 14 percent) (exhibit 4). For the most part, primary marijuana demographics were stable between the second half of 2002 and the first half of 2003. Males (73 percent) and individuals younger than 18 (52 percent) constituted the majority of these admissions; 48 percent were Hispanic, 26 percent were Black non-Hispanic,

and 17 percent were White non-Hispanic (exhibit 5). Alcohol was identified as a secondary drug problem for 46 percent of the primary marijuana admissions in the first half of 2003. An additional 12 percent reported methamphetamine, and 9 percent reported cocaine/crack as their secondary drug problem. Compared with other major illicit drug admissions, primary marijuana admissions had the largest proportion of males (73 percent) and users age 17 and younger (52 percent). When asked whether they had used any drug intravenously in the year prior to admission, approximately 2 percent of all primary marijuana admissions answered affirmatively (exhibit 6).

Approximately 7 percent of the primary marijuana treatment admissions in the first half of 2003 were homeless at the time of admission, and 35 percent were referred to treatment by the court or criminal justice system. Sixty-five percent were entering treatment for the first time. Twenty-two percent had graduated from high school, and, at the time of admission, 13 percent were employed full- or part-time. Such characteristics reflect the fact that more than one-half of all primary marijuana admissions were younger than 18 at the time of admission.

According to CHKS data for the 2002–2003 school year, 32.4 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 marijuana and 17.3 percent had used marijuana, in the past 30 days. A breakdown of the data by grade level illustrated that 4.7 percent of responding 7th graders, 12.6 percent of responding 9th graders, 15.6 percent of responding 11th graders, and 36.4 percent of responding non-traditional students had used marijuana in the past 30 days (exhibit 7).

According to long-term trends calculated from CHKS data spanning over the last 5 school years (exhibit 8), past-30-day marijuana use among responding secondary school students (in grades 7, 9, and 11, and a small sample of non-traditional students) continued to decrease consistently, from 15.6 percent in 1998–1999 to a low of 10.9 percent in 2002–2003.

Recent ADAM data collected from a sample of Pasadena adult male arrestees during the first quarter of 2003 showed that an average of 54.4 percent had marijuana-positive urine screens (exhibit 9). This average was higher than the averages seen in the last two quarters of 2002 (30.3 percent and 44.0 percent, respectively). In addition, the highest proportion of male arrestees tested positive for recent marijuana

use, compared with the other drugs screened for on urinalysis. Unweighted adult female program findings showed that in the first quarter of 2003, 30.8 percent tested positive for recent marijuana use.

According to NFLIS data based on 46,230 analyzed items reported by participating laboratories within Los Angeles County between October 2002 and September 2003, 26 percent (11,620) of all items analyzed were found to be cannabis.

A total of 2,737 marijuana arrests were made within the city of Los Angeles in the first half of 2003; this represents a 14-percent increase over the number of marijuana arrests made in the first 6 months of 2002. Marijuana arrests accounted for approximately 18 percent of all narcotics arrests made in the first half of 2003.

City of Los Angeles marijuana seizures increased 164 percent, from 3,479 pounds seized in the first half of 2002 to 9,185 pounds seized in the first half of 2003. The street value of the seized marijuana accounted for approximately 52 percent of the total street value of all drugs seized in the first half of 2003.

Most of the marijuana available in Los Angeles is produced in Mexico and smuggled by vehicle, rail, aircraft, and mail services into the western United States. Mexican DTOs control the wholesale distribution of marijuana, supplying to African-American and Hispanic street gangs, whereas independent local dealers control the wholesale and retail distribution of domestically produced marijuana. The wholesale price of low-grade marijuana ranges from \$300 to \$400 per pound. The midlevel and retail prices of commercial grade marijuana are \$60–\$80 per ounce and \$10 per gram (exhibit 10). All prices remained stable since the first half of 2003.

According to LA CLEAR, domestic midgrade outdoor and indoor growers continue to increase their share of the local marijuana market. The wholesale price of domestic midgrade marijuana ranges from \$1,000 to \$1,200 per pound. Midlevel and retail prices are \$200–\$250 per ounce and \$25 per gram. The wholesale price of high-grade sinsemilla is \$2,500–\$6,000 per pound. An ounce of sinsemilla sells for \$400–\$600 per ounce and a one-eighth ounce quantity sells for \$60–\$80 (exhibit 10).

Indications regarding the local availability of “BC Bud,” a hybrid type of cannabis bud grown in Canadian British Columbia, continue to circulate. A pound of BC Bud, which would cost approximately

\$1,500 in Vancouver, has a wholesale value of \$6,000. Supposedly, a pound of BC Bud can be swapped straight across for a pound of cocaine. Demand for hashish, the compressed form of tetrahydrocannabinol (THC)-rich resinous cannabis material, remained limited throughout the Los Angeles HIDTA; when it is available, it has a wholesale price of \$8,000 per pound.

### Stimulants

Amphetamines and methamphetamine rounded out the top six most frequently mentioned major substances of abuse in the DAWN Los Angeles-Long Beach metropolitan area in 2002, with an estimated 1,667 and 1,713 mentions, respectively (exhibit 1). ED amphetamine and methamphetamine mentions accounted for 3.7 percent and 3.9 percent, respectively, of all ED drug mentions. Each was a factor in 7 percent of all drug episodes.

In 2002, 69 percent of the ED methamphetamine mentions occurred among patients who were male. The proportion of females among ED methamphetamine mentions increased significantly from 367 mentions in 2000 to 511 mentions in 2002. Forty-two percent of methamphetamine ED mentions occurred among Whites, and 38 percent occurred among Hispanics. Almost identical percentages of 18–25-year-olds and those age 35 and older mentioned methamphetamine (33 and 32 percent, respectively). A slightly lower proportion of methamphetamine mentions were for patients age 26–34 (28 percent).

In terms of the ED amphetamine mentions reported in 2002, 63 percent were among patients who were male. Whereas a slightly higher percentage of Whites than Hispanics mentioned methamphetamine, a slightly higher percentage of Hispanics than Whites mentioned amphetamines (42 vs. 38 percent). Amphetamines were most likely to be mentioned by individuals age 35 and older (37 percent).

Two-thirds of ED amphetamine mentions and 60 percent of methamphetamine mentions occurred during multidrug episodes. The drug use motive for 39 percent of the patients who mentioned amphetamine during an ED drug episode was dependence, which also characterized 57 percent of episodes in which methamphetamine was mentioned. Unexpected reaction (36 percent) and overdose (24 percent) were the most frequently reported reasons for ED contact among those mentioning amphetamines. On the other hand, chronic effects and unexpected reaction were most frequently reported as reasons for ED contact



among 43 percent and 32 percent of those who mentioned methamphetamine during an ED drug episode, respectively.

San Francisco led the six western CEWG areas in terms of the 2002 population adjusted rate of methamphetamine mentions, with an estimated 46 mentions per 100,000 population, followed by Seattle (25), San Diego (23), Los Angeles (20), and Phoenix (17) (exhibit 3). Denver's rate was 5 mentions per 100,000 population, which was in line with the national rate. In terms of the rate of methamphetamine ED mentions in Los Angeles by gender and age, a higher rate was seen among males (28) than females (12), and the rate was highest among the 26–29-year-olds (51).

Primary methamphetamine admissions to Los Angeles County treatment and recovery programs increased further from the second half of 2002 to the first half of 2003. The 4,961 primary methamphetamine admissions reported in January–June 2003 accounted for 18.3 percent of all admissions (exhibit 4). Compared with other major illicit drug admissions, primary methamphetamine admissions had the largest proportion of females (40.5 percent), White Non-Hispanics (44.4 percent), Asian/Pacific Islanders (3.1 percent), 18–25-year-olds (29 percent), and 26–35-year-olds (35.1 percent).

The racial/ethnic gap between White non-Hispanic and Hispanic treatment admissions continued to narrow in the first half of 2003. The proportion of White non-Hispanics decreased to 44 percent, whereas the proportion of Hispanics increased to 42 percent.

At one time, females had accounted for 49 percent of all primary methamphetamine admissions. This practically equal distribution of males and females was unique to methamphetamine. With all of the other major drugs of abuse, the gender split was at least 60 percent males and 40 percent females, with most drugs having gender breakdowns closer to 70/30. But since 1999, the gender difference has widened, and in the first half of 2003, 59.5 percent of primary methamphetamine admissions were male and 40.5 percent were female.

Primary amphetamine admissions were only slightly more likely to be male (51 percent) than female (49 percent), and were most likely to fall within the 21–25 age group (21.7 percent). This is a downward shift in age, compared with the second half of 2002. This same shift occurred among primary methamphetamine admissions. Primary amphetamine admissions were almost equally likely to be White non-Hispanic

(45.4 percent) or Hispanic (42.8 percent), as was the case with methamphetamine admissions. Primary methamphetamine and other amphetamine admissions tended to most frequently report secondary abuse of alcohol or marijuana.

As shown in exhibit 5, 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 first half of 2003, 66.7 percent reported this mode of administration. On the other hand, the proportions of injectors and inhalers continued to decline, from 15.2 and 29.5 percent, respectively, in 1999, to 8.3 and 20.5 percent, respectively, in the first half of 2003.

Like primary methamphetamine admissions, the mode of other amphetamine administration has shifted in recent years, as well. More than one-half of all other amphetamine admissions in the first half of 2003 smoked amphetamines (62.5 percent), followed by 16.5 percent who inhaled, 11.8 percent who ingested orally, and 6.6 percent who injected. In 1999, a lower percentage smoked; and higher percentages injected, inhaled, and used other amphetamines orally.

Thirteen percent of all primary methamphetamine admissions reported past-year intravenous use of one or more drugs (exhibit 6). Approximately one-fifth of the primary methamphetamine treatment admissions were homeless (20.5 percent), and 23.1 percent were referred by the court or criminal justice system. Forty-seven percent were entering treatment for the first time. Forty-five percent had graduated from high school, and, at the time of admission, 19 percent were employed full- or part-time.

According to CHKS data for the 2002–2003 school year, 10.4 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 methamphetamine (including crystal, ice, speed, and other amphetamines), and 5.2 percent had used methamphetamine in the past 30 days. A breakdown of the data by grade level illustrated that among responding seventh graders, 1 percent had ever used methamphetamine, and 1 percent were current users (exhibit 7). Among responding ninth graders, 6.8 percent had ever used methamphetamine and 3.8 percent were current users of methamphetamine. Among 11th graders, 8.5 percent had ever used methamphetamine, and 3.5 percent used methamphetamine within the past 30

days. Lastly, among responding non-traditional students, 25.2 percent had ever used methamphetamine, and 12.3 percent were current users.

According to long-term trends calculated from CHKS data spanning over the last 5 school years (exhibit 8), the pattern of past-30-day methamphetamine use among responding secondary school students (in grades 7, 9, and 11) was similar to usage patterns seen with some of the other licit and illicit drugs, such as cocaine and LSD/other psychedelics. After decreasing from 6.1 percent in 1998–1999 to a low of 4.1 percent in 2001–2002, current use of methamphetamine increased slightly to 4.3 percent in 2002–2003.

Recent ADAM data collected from a sample of Pasadena adult male arrestees during the first quarter of 2003 showed that an average of 9.2 percent had methamphetamine-positive urine screens (exhibit 9). The percentage of male arrestees testing positive for methamphetamine decreased slightly over the past few quarters. The third quarter 2002 average was 15.1 percent and the fourth quarter average was 14.4 percent. The unweighted data collected for adult female arrestees shows an opposite pattern. The proportion of female arrestees testing positive for methamphetamine increased from the fourth quarter of 2002 (14.3 percent) to the first quarter of 2003 (15.4 percent) (exhibit 9).

According to NFLIS data based on 46,230 analyzed items reported by participating laboratories within Los Angeles County between October 2002 and September 2003, 34 percent (15,584) of all items analyzed were found to be methamphetamine.

During the first 6 months of 2003, 135 amphetamine arrests were made within the city of Los Angeles, exceeding the number of arrests made during the same time period in 2002 by 108 percent. Amphetamine arrests continued to account for less than 1 percent of the total. Arrests for methamphetamine are included in the category “other narcotics.” In the first half of 2003, a total of 5,047 arrests for other narcotics were made, accounting for 34 percent of all arrests.

Citywide methamphetamine seizures increased 74 percent, from 32 pounds seized in the first half of 2002 to 56 pounds seized in the first half of 2003. The street value of the seized methamphetamine accounted for approximately 13 percent of the total street value of all drugs seized in the first half of 2003.

Los Angeles is considered by NDIC to be one of the largest methamphetamine markets in the United

States. Domestically based Mexican criminal groups control the wholesale and midlevel distribution of methamphetamine and distribute the drug via private vehicles and commercial trucks. Not only does a large quantity of the drug stay in the southern California region, but methamphetamine gets transported to other major cities and regions, including San Francisco and Phoenix, and the West Central, Southwest, and Southeast areas of the United States. The wholesale price per pound of methamphetamine ranges from \$3,700 to \$5,000 (exhibit 10), which is the same wholesale price level that has been encountered since late 2000. The midlevel and retail prices are \$450–\$700 per ounce (an increase in the upper range of \$550 seen in the June 2003 report), \$20 per one-quarter gram, \$40–\$100 per gram, and \$60–\$80 per one-sixteenth ounce (“teener”). The purity of finished methamphetamine available in the Los Angeles area remains at approximately 30–35 percent.

Local law enforcement authorities are reporting seizures of “ice,” a potent form of methamphetamine, with increasing frequency. Asian gangs distribute limited quantities of ice throughout Los Angeles, particularly within Asian communities. In addition, ice continues to be produced and smuggled to Hawaii from California by Mexican National and Filipino criminal groups. A pound of ice that would sell wholesale for \$7,000–\$13,000 (an increase in the upper range of \$11,000 cited in the June 2003 report) in Los Angeles can sell for as much as \$35,000 (wholesale) in Hawaii. The midlevel price for an ounce of ice is \$900 (up from \$600–\$800) (exhibit 10). A double case of pseudoephedrine (60-milligram tablets/17,000 tablets per case) is stable at \$3,000–\$3,500. In addition, a 1,000-count bottle of 60-milligram tablets sells for \$200.

According to LA CLEAR, the Los Angeles HIDTA led the State in the overall number of methamphetamine laboratory seizures between January 1, 2003, and November 4, 2003, accounting for 56 percent of all seizures made in California (418 of 749 seizures). Of the 4 counties in the LA HIDTA, Los Angeles County had the second highest number of seizures during that time period (139), lagging slightly San Bernardino County (150), but surpassing Riverside County (96). Orange County rounded out the HIDTA with 33 laboratory seizures.

The number of “superlabs” established throughout California continues to increase. In the past, these large-scale labs were capable of producing 10 or more pounds of finished methamphetamine in a single production cycle. But superlabs have stepped up the pace and are now capable of producing 20 or more

pounds of finished drug in a single production cycle (NDIC 2003). The LA HIDTA reported the highest proportion of superlabs seized throughout California (47 out of 103 superlabs seized between January 1, 2003, and November 4, 2003, or 46 percent). This proportion is a slight increase over LA HIDTA's contribution in 2002. Furthermore, totals reported in the LA HIDTA exceeded totals reported by all States outside of California, including the "runner-up" State of Missouri, which did not report any superlab seizures between January and November 2003.

The cost to clean up labs located in the LA HIDTA from January to June 2003 totaled \$1,146,349. The California Department of Toxic Substances Control cleaned up 284 laboratories in the first 6 months of 2003. Therefore, the per-lab clean-up cost was calculated at \$4,036. These figures do not encompass building and environment remediation, which both cost taxpayers even more money.

### Depressants

Los Angeles ED mentions of psychotherapeutic agents, which include mentions of antidepressants, antipsychotics, and anxiolytics, sedatives, and hypnotics (including barbiturates and benzodiazepines), showed a nonsignificant increase of 26 percent, from 3,694 mentions in the 2001 to an estimated 4,666 mentions in 2002. In terms of the individual subgroups, nonsignificant increases were reported for benzodiazepines (from 1,823 to 2,428 mentions) and barbiturates (from 325 to 400 mentions) from 2001 to 2002. ED mentions of tricyclic antidepressants, on the other hand, increased significantly (58 percent), from 154 mentions in 2001 to 243 mentions in 2002. In 2002, benzodiazepine mentions consisted primarily of alprazolam (Xanax, with 285 mentions), clonazepam (Klonopin, with 248 mentions), lorazepam (with 228 mentions), and diazepam (Valium, with 223 mentions). Eighty-seven percent of all barbiturate mentions were for barbiturates NOS (not otherwise specified).

The estimated population-adjusted rate of ED mentions of psychotherapeutic agents experienced a nonsignificant increase of 26 percent, from a rate of 43 per 100,000 population in 2001 to 54 in 2002. Benzodiazepines and barbiturates had rates of 28 per 100,000 population and 5 per 100,000 population, respectively, in 2002.

In 2002, 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.

Approximately 650 of the 46,230 items analyzed and reported to the NFLIS system were pharmaceutical medications (as opposed to illicit substances). Of those, 26 percent (170 items) were found to be benzodiazepines, and another 2 percent (13) items were found to be barbiturates. The most frequently cited benzodiazepines were diazepam (96 items), clonazepam (45 items), and alprazolam (28 items).

According to LA CLEAR, Valium retails for \$4 per tablet.

### Hallucinogens

ED phencyclidine (PCP) mentions continued to remain low in 2002 at 991 mentions (exhibit 1). The relative standard error for LSD was over 50 percent; therefore, 2002 DAWN data for LSD were suppressed for the Los Angeles-Long Beach metropolitan area. ED PCP mentions were more likely to be male (74 percent), African-American (53 percent), and 35 and older (40 percent).

Primary PCP treatment admissions accounted for 1.2 percent of all admissions in 2002. Although the proportion of PCP admissions among all admissions has been stable for several years, the overall number of PCP admissions increased 89 percent from 1999 to the first half of 2003. Alcohol (25.5 percent), marijuana (18.8 percent), and cocaine/crack (16.2 percent) were the secondary drugs used most frequently by primary PCP admissions. Almost all (94 percent) primary PCP admissions smoked the drug. There were no notable changes from the previous reporting period in terms of user demographics. Other hallucinogens, such as LSD, peyote, and mescaline continued to account for approximately 0.1 percent of the total treatment admissions.

According to CHKS data for the 2002–2003 school year, 7.7 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 LSD or another psychedelic, and 5.7 percent had used LSD/other psychedelics in the past 30 days. A breakdown of the data by grade level illustrated that among responding ninth graders, 5.2 percent had ever used LSD/other psychedelics, and 2.6 percent were current LSD users (exhibit 7). Among 11th graders, 6.3 percent had ever used LSD/other psychedelics, and 2.0 percent used the drug within the past 30 days.

According to long-term trends calculated from CHKS data spanning over the last 5 school years (exhibit 8), 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 other licit and illicit drugs. Current use of LSD/other psychedelics has been trending downward since a reported peak of 6 percent in 1998–1999. Since then, current use has consistently decreased, reaching a low of 2.8 percent in 2002–2003.

No adult male or female arrestees tested positive for recent PCP use, according to ADAM data collected in the first quarter of 2003 (exhibit 9).

According to NFLIS data based on 46,230 analyzed items reported by participating laboratories within Los Angeles County between October 2002 and September 2003, approximately 1 percent (492) of all items analyzed were found to be phencyclidine.

There were 96 PCP arrests within the city of Los Angeles in the first half of 2003. This represented a 5-percent increase from the number of PCP arrests made in the first half of 2002. Like amphetamine arrests, PCP arrests accounted for less than 1 percent of all narcotics arrests made in Los Angeles in the first half of 2003.

The street value of the PCP seized between January and June 2003 represented roughly 1 percent of the total street value of all drugs seized during that time period. The total amount of PCP seized during the first 6 months of 2003 (6 pounds) was 96 percent lower than the amount seized during the same time period in 2002 (170 pounds). This decrease follows a substantial increase in citywide PCP seizures between 2001 and 2002.

The wholesale price range for a gallon of PCP is \$8,500, a slight increase from the price reported in the June 2003 report (exhibit 10). The ounce price increased recently to \$600, which is up from the formerly reported ounce price of \$125–\$175. A sherm cigarette dipped in liquid PCP sells for \$20–\$30. A tight-knit group of Los Angeles-based African-American street gang members continue to produce, supply, and distribute PCP in the Los Angeles area.

A sheet of approximately 100 doses of LSD has a wholesale price range of \$150–\$200. Typically, a single dose sells for \$5–\$10 (exhibit 10). At the retail level, psilocybin mushrooms cost about \$20 per one-eighth ounce.

## Club Drugs

Comprehensive indicator data relating to the use and abuse of club drugs is still lacking in the local area. Therefore, it is difficult to accurately and comprehensively describe the use and abuse patterns of club drugs in Los Angeles County. Despite this lack of traditional indicator information, anecdotal evidence from a variety of sources continues to circulate with regards to the availability of club drugs in Los Angeles County, particularly methylenedioxy-methamphetamine (MDMA or ecstasy) and gamma hydroxybutyrate (GHB).

ED ecstasy and GHB mentions continued to represent very small proportions of all ED mentions. In 2002, 176 ED mentions for MDMA and 100 mentions of GHB were reported to the DAWN system in the Los Angeles-Long Beach metropolitan area. Each substance accounted for less than 0.5 percent of all mentions, and they were factors in between 0.4 and 0.7 percent of all ED drug episodes. Mentions of ketamine and flunitrazepam (Rohypnol) remained marginal, as well.

Patients mentioning MDMA during an ED drug episode were equally likely to be made by male or female patients and were more likely to be reported by Whites (37 percent) than African-Americans (18 percent) or Hispanics (14 percent). In addition, they were slightly more likely to be mentioned by patients age 18–25 (44 percent) than by those age 26–34 (31 percent). In 2002, 56 percent of all MDMA mentions were made during multidrug episodes, compared with 66 percent in 2001. Slightly more than 50 percent involved a drug use motive of psychic effects; 47 percent were visits for an unexpected reaction. Fifty-nine percent of the MDMA mentions represented patients who were treated and released, and an additional 38 percent of patients were admitted to the hospital.

The general demographics of patients mentioning GHB remained quite different from those of patients mentioning MDMA, but were generally stable from 2001 to 2002. In 2002, 81 percent of GHB mentions represented patients who were male. The proportion of females decreased significantly among GHB mentions, from 41 in 2000 to 19 in 2002. Whites accounted for nearly three-quarters of the GHB mentions; Hispanics constituted an additional 12 percent. One-half of the GHB mentions occurred among individuals age 26–34, followed by 28 percent among 18–25-year-olds and 22 percent among those age 35 or older. A higher proportion of patients mentioning GHB (66 percent) than MDMA were part of multidrug

episodes. Psychic effects were the most likely motive for using GHB (79 percent). Forty-three percent of patients had an unexpected reaction, and an additional 42 percent overdosed on GHB. Most (79 percent) of the mentions involved individuals who were treated and released, as was the case in 2001.

According to CHKS data for the 2002–2003 school year, 7.4 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 ecstasy. In terms of past-30-day use of ecstasy, 1 percent of 7th graders, 2.7 percent of 9th graders, 2.3 percent of 11th graders, and 7.6 percent of non-traditional students responded in the affirmative (exhibit 7).

According to NFLIS data based on 46,230 analyzed items reported by participating laboratories within Los Angeles County between October 2002 and September 2003, less than 1 percent (277) of all items analyzed were found to be either MDMA, GHB, gamma butyrolactone (GBL), or ketamine.

Israeli and Russian criminal groups are responsible for the wholesale distribution of MDMA in Los Angeles. Independent dealers, often White, have primary control over the midlevel and retail distribution of the drug (NDIC, 2003). Wholesale quantities leave Los Angeles and are destined for New Jersey, Virginia, and the Great Lakes, Pacific, Southeast, and Southeast regions of United States.

For the most part, wholesale and retail prices for club drugs remained stable since the June 2003 report. In multiple quantities, MDMA has a wholesale price of \$5–\$10 per pill or capsule (exhibit 10), compared with \$12 per pill or capsule reported in June 2003. At the retail level, ecstasy usually sells for \$20–\$30 per pill, again, a small shift from \$25 to \$40 reported in June 2003. A standard dose of ecstasy is 60–150 milligrams, which is equivalent to 1 or 2 pills. In Los Angeles, ecstasy “boats” continue to be mentioned. A boat contains 1,000 MDMA pills and sells for \$8,000. Rohypnol, when available, has a retail value of \$6–\$10 for a 1-milligram pill. The wholesale and retail prices of GHB are stable, ranging from \$65 to \$100 per 16-ounce bottle to \$5–\$20 per bottle capful. The vast majority of GHB users ingested the drug as a liquid, either in straight shots or mixed with a drink. On the streets, ketamine sells for \$100–\$200 per 10-milliliter vial, an increase from the price (\$60–\$100) reported in the June 2003 report. In addition, ketamine sells for \$20 for two-tenths grams of powder.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

A cumulative total of 46,442 adult/adolescent AIDS cases were reported in Los Angeles County through June 30, 2003. Of those cases, 1,280 were reported between January 1, 2003, and June 30, 2003. Currently, approximately 18,089 Los Angeles County residents are living with advanced HIV disease. Los Angeles County cumulative cases represent approximately 35 percent of the 131,336 cumulative cases in California and 6 percent of the 816,149 cumulative cases nationwide. Of the cumulative cases reported in Los Angeles County, 50 percent were White, 29 percent were Hispanic, 19 percent were African-American, 44 percent were age 30–39, and 92 percent were male.

The proportion of males solely exposed through injection drug use ranged between 5 and 7 percent since 1996 (exhibit 11). 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 have remained relatively stable since 1996. In 2002, 58 percent of males diagnosed with AIDS were exposed to the disease through male-to-male sexual contact. The proportion of male cases with an “other” or “unknown” exposure category continues to rise steadily and in 2002 accounted for approximately one-fourth of all male cases diagnosed that year.

The modal exposure category for females diagnosed with AIDS in 1996 was heterosexual contact (50 percent). This exposure category has been associated with a lower proportion of female AIDS cases since then; in 2002, it was associated with 31 percent of all newly diagnosed female AIDS cases. Female cases attributable to injection drug use have fluctuated over the years and have recently increased from 15 percent of all female cases in 2000 to 18 percent in 2002. The proportion of female cases with an “other” or “unknown” exposure category continued to increase, accounting for just under 50 percent of all female cases diagnosed in 2002.

In Los Angeles County, approximately 7 percent of all AIDS cases have involved injection drug use (alone) as the primary route of exposure. Among the 3,283 cumulative cases primarily attributable to injection drug use, 73 percent occurred among males. African-Americans are the modal group of male injection drug users (IDUs) (accounting for 37 percent), followed by Whites (31 percent) and Hispanics (30 percent). A similar pattern was seen with female IDU AIDS

cases. African-Americans continued to constitute the greatest proportion (45 percent), followed by Whites (31 percent) and Hispanics (22 percent).

An additional 6 percent of the total cumulative cases were attributable to a combination of male-to-male sexual contact and injection drug use. Fifty-two percent of the male-to-male sexual contact and injection drug use cases were White males.

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**Exhibit 1. Los Angeles-Long Beach Estimated ED Mentions for Selected Drugs and Percentages of Mentions Per Drug in Total Drug Episodes: 1998–2002**

Substance of Abuse	1998		1999		2000		2001		2002	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alcohol-in-Combination	6,129	(36)	8,195	(40)	10,993	(43)	10,907	(44)	10,049	(41)
Cocaine	5,779	(34)	6,768	(33)	9,094	(36)	9,999	(41)	9,364	(38)
Heroin	2,601	(15)	2,923	(14)	3,177	(13)	2,878	(12)	2,525	(10)
Marijuana	3,422	(20)	5,472	(26)	5,846	(23)	5,729	(23)	5,593	(23)
Methamphetamine	786	(5)	910	(4)	1,375	(5)	1,517	(6)	1,713	(7)
Amphetamines	541	(3)	866	(4)	1,072	(4)	1,261	(5)	1,667	(7)
PCP	605	(4)	731	(4)	823	(3)	990	(4)	991	(4)
LSD	162	(<1)	229	(1)	217	(<1)	175	(<1)	...	N/A
<b>Total Drug Episodes</b>	<b>17,103</b>		<b>20,667</b>		<b>25,279</b>		<b>24,669</b>		<b>24,592</b>	
<b>Total Drug Mentions</b>	<b>29,796</b>		<b>36,937</b>		<b>44,996</b>		<b>44,670</b>		<b>44,475</b>	

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 2. Estimated Semiannual ED Mentions in Los Angeles-Long Beach: January 1998–June 2002**

Drug	1H98	2H98	1H99	2H99	1H00	2H00	1H01	2H01	1H02	2H02
Cocaine	2,629	3,150	3,183	3,586	4,622	4,472	4,625	5,374	4,585	4,779
Heroin	1,214	1,387	1,431	1,491	1,791	1,386	1,440	1,437	1,235	1,290
Marijuana	1,343	2,079	2,517	2,955	3,219	2,627	2,685	3,044	2,956	2,637
Methamphetamine	418	368	414	496	682	693	711	806	792	922
Amphetamines	272	268	410	456	532	540	595	666	774	892

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 3. Population-Adjusted ED Rates Per 100,000 Population for Major Illicit Drug Mentions Among Western U.S. CEWG Sites: 1998–2002**

Drug	1998	1999	2000	2001	2002
<b>Cocaine</b>					
Denver	73	87	83	69	82
Los Angeles	68	79	105	117	108
Phoenix	73	91	85	62	59
San Diego	41	44	41	32	32
San Francisco	116	120	126	158	150
Seattle	125	130	169	160	164
<b>Heroin</b>					
Denver	31	40	41	40	43
Los Angeles	31	34	37	34	29
Phoenix	43	41	40	27	23
San Diego	41	44	42	29	28
San Francisco	148	190	168	178	171
Seattle	126	127	126	90	128
<b>Marijuana</b>					
Denver	37	43	51	50	38
Los Angeles	40	64	67	67	64
Phoenix	36	50	51	45	46
San Diego	47	38	39	44	46
San Francisco	25	29	38	45	39
Seattle	49	42	72	75	65
<b>Methamphetamine</b>					
Denver	8	6	7	5	5
Los Angeles	9	11	16	18	20
Phoenix	22	17	29	21	17
San Diego	30	24	31	27	23
San Francisco	39	34	36	39	46
Seattle	14	18	27	18	25

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 4. Numbers and Proportions of Semiannual Treatment Admissions in Los Angeles County by Primary Illicit Drug of Abuse: July 2000–June 2003**

Primary Drug	07/00–12/00 Number (%)	01/01–06/01 Number (%)	07/01–12/01 Number (%)	01/02–06/02 Number (%)	07/02–12/02 Number (%)	01/03–06/03 Number (%)
Cocaine/Crack	4,342 (18.3)	4,349 (18.4)	4,354 (19.4)	4,655 (19.6)	4,354 (19.0)	5,242 (19.3)
Heroin	10,642 (44.9)	9,527 (40.2)	8,033 (35.8)	7,767 (32.8)	7,096 (30.9)	6,891 (25.4)
Marijuana	1,736 (7.3)	2,258 (9.5)	2,028 (9.0)	2,686 (11.3)	2,816 (12.3)	3,669 (13.5)
Methamphetamine	1,959 (8.3)	2,403 (10.1)	3,015 (13.4)	3,453 (14.6)	3,692 (16.1)	4,961 (18.3)
PCP	166 (0.7)	198 (0.8)	207 (0.9)	196 (0.8)	219 (0.9)	314 (1.2)
<b>Total Admissions</b>	<b>23,719</b>	<b>23,697</b>	<b>22,430</b>	<b>23,695</b>	<b>22,934</b>	<b>27,110</b>

SOURCE: California Alcohol and Drug Data System (CADDs)



**Exhibit 5. Characteristics of Treatment Admissions in Los Angeles County by Primary Illicit Drug and Percent: January–June 2003**

Characteristics	Cocaine/Crack	Heroin	Marijuana	Methamphetamine	All Admissions
Gender					
Male	65.3	72.0	73.3	59.5	66.9
Female	34.7	28.0	26.7	40.5	33.1
Race/Ethnicity					
White non-Hispanic	13.3	37.6	16.6	44.4	30.7
Black non-Hispanic	57.4	11.1	25.9	3.1	23.8
Hispanic	21.4	41.6	47.8	41.5	36.2
American Indian	<1.0	<1.0	<1.0	1.0	<1.0
Asian/Pacific Islander	1.6	1.1	2.9	3.1	2.0
Other	5.9	7.8	5.9	6.9	6.5
Age					
17 and younger	1.7	<1.0	51.8	6.5	11.6
18–25	10.8	7.1	22.8	29.1	15.1
26–35	24.9	20.4	13.4	35.1	23.2
36 and older	62.6	72.3	12.0	29.3	50.1
Route of Administration					
Oral	2.0	1.1	2.8	3.3	22.5
Smoking	86.6	8.8	96.6	66.7	46.3
Inhalation	9.7	3.7	<1.0	20.5	6.8
Injection	1.1	86.0	<1.0	8.3	23.8
Unknown/other	<1.0	<1.0	<1.0	1.2	0.7
Secondary Drug	Alcohol	Cocaine/ Crack	Alcohol	Marijuana	Alcohol
<b>Total Admissions (N)</b>	<b>(5,242)</b>	<b>(6,891)</b>	<b>(3,669)</b>	<b>(4,961)</b>	<b>(27,110)</b>

SOURCE: California Alcohol and Drug Data System (CADDs)

**Exhibit 6. Additional Characteristics of Treatment Admissions in Los Angeles County by Primary Illicit Drug of Abuse and Percent: January–June 2003**

Characteristics	Cocaine	Heroin	Marijuana	Methamphetamine	All Admissions
Positive for Intravenous Drug Use in Past Year	4.7	88.8	1.6	13.1	27.5
Homeless	33.1	14.0	6.8	20.5	19.9
Employed Full- or Part-Time	13.2	22.1	12.5	18.7	17.5
Graduated from High School	44.8	49.8	22.2	44.7	42.2
Referred by Court/Criminal Justice System (Not Including SACPA <sup>1</sup> Referrals)	23.9	4.8	35.1	23.1	19.0
First Treatment Episode	34.1	14.3	64.8	46.8	39.1
<b>Total Admissions (N)</b>	<b>(5,242)</b>	<b>(6,891)</b>	<b>(3,669)</b>	<b>(4,961)</b>	<b>(27,110)</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 7. Drug Use Patterns Among Los Angeles County Secondary School Students, by Grade and Percent: 2001–02 School Year vs. 2002–2003 School Year**

Usage Patterns Among Survey Respondents	7th Grade		9th Grade		11th Grade		Non-Traditional <sup>1</sup>	
	2001-2002	2002-2003	2001-2002	2002-2003	2001-2002	2002-2003	2001-2002	2002-2003
Cocaine (any form)								
Lifetime	N/A <sup>2</sup>	1.0	5.6	6.3	8.2	7.2	31.4	23.6
Past 30 Days	N/A	0.9	2.9	3.4	3.3	3.0	14.3	11.3
Ecstasy								
Lifetime	2.5	1.2	6.1	5.3	9.2	6.4	20.1	16.6
Past 30 Days	N/A	1.0	N/A	2.7	N/A	2.3	N/A	7.6
Heroin								
Lifetime	N/A	1.4	3.3	3.3	3.4	2.3	6.3	7.2
Past 30 Days	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inhalants								
Lifetime	10.3	11.8	13.5	14.1	15.4	13.0	32.1	23.9
Past 30 Days	4.6	5.3	5.0	5.2	4.0	3.5	12.5	9.9
LSD/Other Psychedelics								
Lifetime	3.9	1.4	5.4	5.2	9.0	6.3	26.0	18.0
Past 30 Days	N/A	0.9	2.6	2.6	2.9	2.0	9.6	17.3
Marijuana								
Lifetime	7.8	8.2	22.9	24.4	37.4	36.4	69.2	60.4
Past 30 Days	4.5	4.7	12.3	12.6	17.7	15.6	44.3	36.4
Methamphetamine								
Lifetime	N/A	1.0	5.8	6.8	9.0	8.5	31.7	25.2
Past 30 Days	N/A	1.0	2.9	3.8	3.6	3.5	17.4	12.3

<sup>1</sup>A small sample of students enrolled in continuation or alternative schooling programs.

<sup>2</sup>N/A=Not applicable.

SOURCE: WestEd

**Exhibit 8. Long-Term Trends in the Proportions of Current Substance Users Among a Sample of Los Angeles County Secondary School Students: 1998–2003**

Respondents <sup>1</sup> Reporting Past-30-Day Use of...	School Year				
	1998–1999	1999–2000	2000–2001	2001–2002	2002–2003
Any Alcohol	35.1	29.2	28.4	25.4	24.8
5+ Alcoholic Drinks/Occasion (a.k.a., Binge Drinking)	16.7	14.4	13.4	12.4	12.4
Cocaine (any form)	4.7	4.9	4.3	3.9	3.8
Inhalants	9.2	5.7	5.1	5.0	5.3
LSD/Other Psychedelics	6.0	5.0	4.4	3.3	2.8
Marijuana	15.6	13.2	13.0	12.0	10.9
Methamphetamine	6.1	4.6	4.3	4.1	4.3

<sup>1</sup>All respondents include responding 7th graders (when applicable), 9th graders, 11th graders, and a small sample of non-traditional students (enrolled in continuation or alternative schooling programs).

SOURCE: California Healthy Kids Survey, Los Angeles County Sample, WestEd

**Exhibit 9. City of Pasadena Arrestees Testing Positive for Recent Drug Use by Gender, Type of Drug, and Percent: July 2002–March 2003**

Type of Drug	Third Quarter 2002		Fourth Quarter 2002		First Quarter 2003	
	Male <sup>1</sup>	Female <sup>2</sup>	Male	Female	Male	Female
Any Drug <sup>3</sup>	62.8	N/A	61.6	57.1	58.2	61.5
Alcohol	N/A	N/A	N/A	N/A	1.9	7.7
Cocaine	33.4	N/A	30.4	21.4	24.6	38.5
Marijuana	30.3	N/A	44.0	35.7	54.4	30.8
Opiates	6.4	N/A	5.2	14.3	1.9	0.0
Methamphetamine	15.1	N/A	14.4	14.3	9.2	15.4
PCP	0.0	N/A	3.6	7.1	0.0	0.0
Multiple Drugs <sup>4</sup>	20.2	N/A	27.2	28.6	29.9	23.1

<sup>1</sup>Male findings are weighted and represent probability-based sampling.

<sup>2</sup>Female findings are unweighted and not based on probability sampling.

<sup>3</sup>National Institute on Drug Abuse five primary drugs (cocaine, heroin, marijuana, methamphetamine, and PCP), excluding alcohol.

<sup>4</sup>Two or more of the drugs listed in the table, excluding alcohol.

SOURCE: ADAM, NIJ

**Exhibit 10. Illicit Drug Prices: January–June 2003**

Type of Illicit Drug	Price		
	Wholesale	Midlevel	Retail
Cocaine Powder Crack Cocaine	\$14,000–\$17,000 per kilogram N/R <sup>1</sup>	\$500–\$600 per ounce \$500–\$1,200 per ounce	\$80 per gram \$10–\$100 per rock
Heroin Mexican Black Tar Mexican Brown Powder Southeast Asian  Southwest Asian Opium  South American	\$20,000 per kilogram \$25,000 per kilogram \$35,000–\$40,000 per 300–350-gram unit \$70,000–\$80,000 per 700–750-gram unit \$25,000 per kilogram \$650–\$600 per 18-gram stick \$86,000–\$100,000 per kilogram	\$500–\$800 per ounce N/R N/R N/R N/R N/R N/R	\$90–\$100 per gram N/R N/R N/R N/R N/R N/R
Marijuana Mexico-produced Domestic Sinsemilla	\$300–\$400 per pound \$1,000–\$1,200 per pound \$2,500–6,000 per pound	\$60–\$80 per ounce \$200–\$250 per ounce \$400–\$600 per ounce	\$10 per gram \$25 per gram \$60–\$80 per 1/8 ounce
Methamphetamine  Crystal Methamphetamine	\$3,700–\$5,000 per pound  \$7,000–\$13,000 per pound	\$450–\$700 per ounce  \$900 per ounce	\$20 per 1/4 gram \$40–\$100 per gram \$60–\$80 per one-sixteenth ounce N/R
PCP	\$8,500 per gallon	\$600 per ounce	\$20–\$30 per sherm cigarette
LSD	\$150–\$200 per sheet	N/R	\$5–\$10 per dose
MDMA (ecstasy)	\$5–\$10 per tablet	N/R	\$20–\$30 per tablet
GHB	\$65–\$100 per 16 ounce bottle	N/R	\$5–\$20 per capful
Ketamine	N/R	\$100–\$200 per 10 milliliter vial	\$20 per two-tenths gram
Rohypnol	N/R	N/R	\$6–\$10 per pill

<sup>1</sup>N/R=Not reported.

SOURCE: NDIC and LA CLEAR

**Exhibit 11. Annual Adult/Adolescent AIDS Cases by Gender, Year of Diagnosis, and Exposure Category: 1996–2002**

Adult/Adolescent Exposure Category <sup>1</sup>	1996 Number (%)	1997 Number (%)	1998 Number (%)	1999 Number (%)	2000 Number (%)	2001 Number (%)	2002 Number (%)
Males							
Male-to-Male Sexual Contact	1,842 (74)	1,224 (65)	1,075 (64)	975 (64)	820 (60)	754 (60)	655 (58)
Injection Drug Use	164 (7)	137 (7)	101 (6)	80 (5)	92 (7)	90 (7)	70 (6)
Male-to-Male Sexual Contact/Injection Drug Use	156 (6)	110 (6)	99 (6)	84 (5)	79 (6)	79 (6)	62 (5)
Hemophilia or Coagulation Disorder	5 (<1)	10 (1)	1 (<1)	2 (<1)	4 (<1)	5 (<1)	1 (<1)
Heterosexual Contact	50 (2)	61 (3)	62 (4)	52 (3)	47 (3)	60 (5)	38 (3)
Transfusion Recipient	14 (1)	6 (<1)	4 (<1)	3 (<1)	4 (<1)	4 (<1)	4 (<1)
Other/Undetermined	265 (11)	322 (17)	342 (20)	338 (22)	319 (23)	261 (21)	309 (27)
Male Subtotal	2,496	1,870	1,684	1,534	1,365	1,253	1,139
Females							
Injection Drug Use	75 (26)	76 (28)	47 (22)	41 (20)	33 (15)	33 (17)	30 (18)
Hemophilia or Coagulation Disorder	0 (0)	0 (0)	1 (<1)	0 (0)	0 (0)	0 (0)	0 (0)
Heterosexual Contact	143 (50)	125 (46)	96 (45)	96 (46)	92 (43)	62 (32)	52 (31)
Transfusion Recipient	10 (3)	7 (3)	3 (1)	3 (1)	1 (<1)	6 (3)	6 (4)
Other/Undetermined	60 (21)	64 (24)	64 (30)	68 (33)	88 (41)	95 (48)	79 (47)
Female Subtotal	288	272	211	208	214	196	167
<b>Total</b>	<b>2,784</b>	<b>2,142</b>	<b>1,895</b>	<b>1,742</b>	<b>1,579</b>	<b>1,449</b>	<b>1,306</b>

<sup>1</sup>Exposure categories are ordered hierarchically. Cases with multiple exposure categories are included in the category listed first.

SOURCE: Los Angeles County Department of Health Services, HIV Epidemiology

# Drug Abuse in Miami and South Florida

James N. Hall<sup>1</sup> and Madeline Camejo, Pharm.D.<sup>2</sup>

## ABSTRACT

*Today, casual attitudes about drugs have promoted more polysubstance abuse patterns in Miami and South Florida. Some may consider using a variety of drugs to be less of a risk than continued use of a single addictive drug. Yet, interactions between two or more substances are contributing to a majority of deaths and ED episodes involving nonlethal doses of multiple drugs. Examples include combinations of cocaine and opiates (heroin and/or prescription narcotic analgesics), benzodiazepines and almost any other drug, marijuana and cocaine, as well as alcohol-in-combination with many substances. This pattern has been fueled by medication diversion and abuse, which has become so out of control that more restrictive scheduling of selected medications including benzodiazepines and sildenafil (Viagra) is now being considered. More people died from a lethal dose of a prescription drug than from an illicit street drug in Florida during the first half of 2003 continuing a pattern identified in 2002. Narcotic analgesics (oxycodone, hydrocodone, and, methadone) as well as benzodiazepines were the medications most frequently cited in these deaths. A second factor in the rise of polydrug abuse is the 'club drug' pattern of using MDMA along with other drugs simultaneously or sequentially. Cocaine indicators remained stable at a high level across the region, while deaths attributed to cocaine continued to rise. Many of these cocaine deaths involved opioid abuse. Ecstasy abuse appears to have peaked and is even considered passé by some former users, yet is being replaced by methamphetamine among those who are ignorant about that drug's devastating impact in other communities. More positive news is that GHB hospital episodes and deaths continued to decline. The Miami Coalition reports significant progress on its Priority One community prevention plan to reduce youthful drug abuse to 50 percent of 1995 prevalence levels before 2005.*

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, 21 percent Black, 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, adding 367,000 more people. 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 comprise the new metropolitan statistical area (MSA) for South Florida, making it the sixth largest in the Nation.

Approximately 25 million tourists visit the area 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

## INTRODUCTION

### Area Description

Located in the extreme southern portion of the Florida peninsula, Miami-Dade County has a population of

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the United States. Haiti remains a major link with 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. Millions of methylenedioxymethamphetamine (MDMA, "ecstasy," or "XTC") tablets originate in the Benelux countries and often—more recently—are flown to the Caribbean before entering the United States in South Florida.
- 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 Miami and South Florida, using the data sources summarized below:

- **Drug-related mortality data** were provided by the Florida Department of Law Enforcement, Medical Examiners Commission, 2003 Interim Report of Drugs Identified in Deceased Persons by Florida Medical Examiners, and the Broward County Medical Examiner Department in "Drug Deaths 1999–2003," a review of all deaths in Broward County directly caused by or associated with drugs. These reports cover deaths reported through the first half of 2003.
- **Emergency department (ED) drug mentions data** were derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for 1995 through 2001. ED data are also reported from the Broward General Medical Center (BGMC) Emergency Department Drug Abuse Case Review, a report of all drug abuse cases presenting to the ED for the seven semiannual periods from 2000 to the first half of 2003.
- **Drug treatment data** were provided by Spectrum Programs, Inc., for 1999 through the first half of 2003.

- **Drug analyses data** were derived from reports of illicit substances analyzed from 1999 through the first half of 2003 by the Broward Sheriff's Office (BSO) Crime Lab.
- **Drug pricing data** were derived from the National Drug Intelligence Center (NDIC) Narcotics Digest Weekly, July 2003.
- **School survey data** were from the Florida Youth Substance Abuse Surveys for 2000 and 2002 and the Centers for Disease Control and Prevention (CDC)'s 2001 Youth Risk Behavior Survey and The Miami Coalition For a Safe and Drug-Free Community's 2003 Private and Parochial School Survey of students in grades 7–12.

Other information on drug use patterns was derived from ethnographic research and hotlines.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

Cocaine abuse rates in South Florida rank among the highest in the Nation, as indicated by hospital ED visits, crime lab data, and drug treatment admissions. Most cocaine abuse indicators remained stable at a high level, although deaths from cocaine continued to rise. Many of these recent cocaine deaths also involved opioid abuse.

During 2002 and again in the first half of 2003 (exhibit 1) across Florida, 69 percent of cocaine-related deaths involved the use of another drug, thus reflecting prevalent polydrug abuse patterns with cocaine. A large proportion of cocaine ED episodes also involved at least one other substance.

Throughout Florida, there were 766 cocaine-related fatalities in the first 6 months of 2003, representing an 11-percent increase over the previous 6-month period. The 1,307 cocaine-related fatalities in 2002 represented an 18-percent increase compared to 2001.

There were 87 cocaine-related deaths in Miami-Dade County during the first 6 months of 2003. If this pace continues, the year-end total will reflect a 15-percent increase over such deaths in 2002. The 151 cocaine-related deaths in 2002 were stable from those in 2001 (149 such cases) and 2000 (144). In 1999, however, there were 226 cocaine-related deaths, and in 1998 there were 246.

There were 18 cocaine-induced deaths in Miami-Dade County in the first 6 months of 2003. If that pace continues, the 2003 deaths will represent a 12-percent increase over those in 2002. The 32 cocaine-induced deaths during 2002 were a 29-percent decrease from the 45 cocaine-induced deaths during 2001. Cocaine-induced deaths in Miami-Dade County totaled 30 in 2000, 43 in 1999, and 39 in 1998.

In Florida, a drug is considered to be a cause of death if it is detected in an amount considered to be a lethal dose by the local medical examiner (ME). Nonspecific, polydrug mixtures were detected in 52 percent of the 87 cocaine-related deaths during the first half of 2003 in Miami-Dade County.

There were 59 deaths related to cocaine abuse in Broward County in the first half of 2003. Among these cases, the drug was detected at a lethal dose level in 27 deaths (46 percent). Decedents in the cocaine-related deaths ranged in age from 18 to 67 years, with an average age of 37.8. Males accounted for 77 percent of the cases; 81 percent were White and 16 percent were Black. Additionally, one was Hispanic and was one Native American. Among these 59 cocaine-related death cases, there were 24 mentions of narcotic pain prescriptions (41 percent of the cases), 22 benzodiazepines mentions (37 percent), 16 alcohol mentions (27 percent), 8 heroin mentions (14 percent), 7 marijuana mentions (12 percent), and 2 MDMA mentions (3 percent).

The total of 27 cocaine-induced deaths in Broward County in the first half of 2003 was stable with 34 such deaths in the last 6 months of 2002 and 30 in the first half of that year. The 64 cocaine-caused deaths in 2002 continued a steady increase from 52 deaths in 2001 and 40 such cases in 2000. The 27 cocaine-induced decedents in 2003 ranged in age from 18 to 67 years, with an average age of 39.2. Males accounted for 78 percent of the cases; 92 percent were White, and there was one Black and one Native American. Among these 27 cocaine-induced death cases, there were 15 mentions of narcotic prescriptions, 12 benzodiazepines mentions, 6 heroin mentions, 6 alcohol mentions, 4 marijuana mentions, and 1 MDMA mention. It appears that the rise in cocaine deaths over the past 18 months may be attributable to the opioid-cocaine combinations. Some additional cases may still be pending at the Broward ME's Office for the first half of 2003.

Miami-Dade County's rate of 240 cocaine ED mentions per 100,000 population in 2002 ranked fourth among the 21 DAWN metropolitan areas behind

Chicago (275), Philadelphia (274), and Baltimore (257). The national coterminous rate was 78 cocaine ED mentions per 100,000 population. In Miami-Dade County during 2002, there were 5,055 cocaine/crack ED mentions in the DAWN system, up significantly from 1995 (exhibit 2). The major factor for this increase appeared to be a 123-percent increase in the number of these cocaine ED mentions involving at least one drug other than cocaine, rising from 1,673 ED such mentions in 1995 to 3,726 ED mentions in 2002 (exhibit 3). In 2002, 74 percent of DAWN cocaine ED mentions involved at least one other drug. Between 1995 and 2002, the number of cocaine-only ED mentions declined 1,405 to 1,330 mentions. Sixty-two percent of cocaine ED mentions in 2002 were for patients older than 34. The sharpest rise since 1995 was among those age 45–54, increasing 222 percent.

For the first 6 months of 2003, a daily review of all emergency department charts at BGMC was conducted to gauge illicit substance abuse-related ED cases. In the 36,987 charts reviewed, 1,251 ED cases related to drug abuse were found (3.4 percent).

Cocaine was clearly the most commonly involved illicit drug, accounting for 685 (55 percent) of the BGMC drug abuse cases in the first half of 2003. Most of the patients were male (74 percent); 51 percent were White, 42 percent were Black, and 7 percent were Hispanic/other. Cocaine-using patients seeking ED treatment at BGMC were age 30 or older in 81 percent of these cases, continuing a trend towards older cocaine ED patients. The patient ages were as follows: 2 percent were younger than 20, 17 percent were in their twenties, 44 percent were in their thirties, 30 percent were in their forties, and 6 percent were age 50 or older.

The most common reasons for coming to the BGMC ED were as follows:

- Depression/suicidal—37 percent
- Psychosis/schizophrenia/hallucinations—18 percent
- Chest pain/cardiac problems—10 percent
- Trauma/accidents—8 percent
- Dependence/seeking detoxification—7 percent

These reasons for coming to the ED were very similar to previous years.

Crack cocaine was specifically mentioned in 31 per-

cent of the BGMC ED cases in the first half of 2003, slightly higher than the 29 percent in the previous 6 months. Cocaine was taken in combination with alcohol in 48 percent of the cases, up from 43 percent in the first half of 2002. This dangerous combination forms the co-metabolite cocaethylene, which can dramatically increase toxicity. A total of 176 BGMC ED cocaine cases (26 percent) involved the combination of cocaine and marijuana.

In the first half of 2003, primary cocaine abuse accounted for 283 of the 951 addiction treatment cases at Spectrum Programs (30 percent). Of these clients, 54 percent were White, 30 percent were Black, and 15 percent were Hispanic/other. The majority (58 percent) were age 35 or older, 22 percent were age 26–34, 12 percent were 18–25, and 8 percent were younger than 18.

Powder cocaine and crack continue to be described as “widely available” throughout Florida. Cocaine remained the most commonly analyzed substance by the BSO Crime Lab, where it accounted for 3,136 items analyzed in the first 6 months of 2003. The second most commonly analyzed substance was marijuana (457 items), followed by oxycodone (130 items).

According to NDIC, powder cocaine sold for \$16,000–\$24,000 per kilogram wholesale and \$20–\$110 per gram retail, while crack cocaine sold for \$5–\$20 per “rock” in South Florida. Cocaine-laced marijuana cigarettes are also gaining popularity. Users typically cover marijuana with powdered cocaine before rolling it into cigarettes, often referred to as “dirties.” Distributors sell prepackaged marijuana and powdered cocaine for \$15 per pack.

The Florida Youth Substance Abuse Survey for 2002 revealed that 3.2 percent of 8th grade, 5.1 percent of 10th grade, and 7.5 percent of 12th grade Florida youth had ever used cocaine. These proportions were all decreases from a 2000 survey that reported 4.4, 7.8, and 8.7 percent of 8th, 10th, and 12th graders, respectively, had tried cocaine in their lifetime.

In 2001, current cocaine use was reported by 2.6 percent of high school students in Broward County, ranking the third lowest among the 14 metropolitan areas in the nation with weighted data in the CDC’s Youth Risk Behavior Survey. Four percent of Miami-Dade County students reported current cocaine use in the same survey.

## Heroin

A major opiate epidemic has settled into South Florida from Palm Beach to Miami-Dade Counties. South American heroin has been entering the area over the past decade. More recently, abuse of narcotic pain medication has fueled opioid consequences. Polydrug abuse patterns have facilitated first-time use of opioid drugs, including heroin. Older, White males continue to account for the majority of opiate addiction treatment admissions and most narcotic-related deaths. Most ED visits for heroin or other opioids were for withdrawal or because the patient was seeking detoxification.

Throughout Florida, there were 135 heroin-related deaths in the first half of 2003 (exhibit 1), representing an 18-percent decline from the previous 6 months. During all of 2002, there were 326 heroin-related deaths, a slight decline of only 2 cases from 328 such deaths in 2001.

Heroin was detected in 13 decedents during the first half of 2003 in Miami-Dade County (exhibit 4). It was considered the cause of death in 11 (85 percent) of those cases. Other drugs were detected in 10 (77 percent) of the cases. None of the heroin-related fatalities was younger than 18; 23 percent were age 18–25, 23 percent were 26–34, and 54 percent were 35–50.

In Broward County, there were 25 deaths in which heroin was detected including 22 (88 percent) in which it was found at a lethal dose level during the first half of 2003. The age of heroin-related decedents ranged from 23 to 52, with an average age of 40.2. Males accounted for 76 percent of the heroin-related deaths. Whites represented 92 percent and Hispanics accounted for 8 percent of the cases. A narcotic analgesic prescription drug was detected in 44 percent of the heroin cases, and benzodiazepines were also found in 44 percent of these cases. Cocaine was detected in 36 percent, alcohol in 28 percent, and marijuana in 16 percent of the heroin-related deaths.

The 22 heroin-induced deaths during the first half of 2003 in Broward County reflected stability from the 21 such deaths in the second half of 2002 and the 22 such deaths in the first half of that year. These figures are stable with the 41 heroin-induced deaths in 2001. The relatively low number of 24 heroin-induced deaths in 2000 was attributed to a sharp rise in other opioid deaths linked to prescription narcotics



at that time. The steady increase in heroin-induced deaths over the past 8 years rose from 9 in 1995 to 43 in 2002.

From 1995 to 2000, Miami-Dade County recorded the greatest number of heroin deaths of any county or ME district in the State. In 2002, however, Broward County ranked first with 43 heroin-induced deaths, followed by Palm Beach and Miami-Dade Counties each with 36 such deaths. In the first half of 2003, Broward County ranked first with 22 heroin-induced deaths, followed by Orlando (16) and Palm Beach County (15). Miami-Dade, St. Petersburg, and Tampa each had 11 such deaths.

Miami-Dade County's per capita rate of 40 heroin ED mentions per 100,000 population in 2002 ranked 11th among the 21 DAWN metropolitan areas. The coterminous U.S. rate was 36 heroin ED mentions per 100,000 population. In Miami-Dade County, the numbers of DAWN heroin ED mentions increased 436 percent from 333 in 1995 to 1,784 in 2002 (exhibit 2). In 2002, 63 percent of the heroin ED mentions occurred during multidrug episodes (exhibit 3). Males accounted for 79 percent of the heroin ED mentions in 2002. Among the heroin ED mentions, patients who were White non-Hispanic accounted for 57 percent, Blacks for 27 percent, and Hispanics for 15 percent. Thirty-one percent of the mentions were made by patients age 26–34; another one-third were by those age 35–44, more than one-fifth were made by those older than 44, and 14 percent were by patients age 18–25. There were four mentions involving patients age 12–17. Data on episode characteristics show that dependence accounted for 95 percent of the “drug use motive” for heroin; almost two-thirds of the mentions cited “seeking detoxification” as the reason for the DAWN ED contact.

Based on a daily review of all ED charts at BGMC for the first half of 2003, there were a total of 92 heroin cases (7 percent of all illicit substance abuse cases). This was a slight increase from heroin cases in the second half of 2002 (77 cases or 16 percent).

The BGMC heroin cases in the first half of 2003 were predominantly among older White males experiencing withdrawal and/or seeking detoxification. Males accounted for 80 percent and Whites for 75 percent of the heroin cases. Four percent of the 92 heroin ED mentions were among teenagers, while 22 percent of the patients were in their twenties, 31 percent were in their thirties, another 31 percent were in their forties, and 10 percent were age 50 or older. In the first half of 2003, 27 percent of BGMC ED heroin cases

involved patients younger than 30.

The route of drug administration for 14 percent of the BGMC heroin ED cases was injection. Among 39 percent of the heroin cases, the drug was reportedly snorted, representing an increase from 2002, when snorting was documented in 3 percent of the cases. In 37 percent of the heroin cases, the route of drug administration was unknown or not documented. Heroin was the sole drug of abuse (with or without alcohol) in 44 percent of the cases, and the most common reason for the patient to visit the ED was dependence and withdrawal or seeking detoxification in 49 percent of the cases.

There were 37 primary heroin addiction treatment clients during the first 6 months of 2003, or 4 percent of the Spectrum treatment sample reviewed. Fifty-seven percent of these clients were older than 34, 24 percent were age 26–34, 16 percent were 18–25, and 3 percent were younger than 18. White non-Hispanics accounted for 83 percent of the heroin treatment clients, Hispanics for 14 percent, and Blacks for 3 percent.

There were 85 heroin cases worked by the BSO Crime Lab in the first half of 2003, a 28-percent increase from the 66 heroin cases in the second half of 2002.

Colombian Heroin is still described as widely available in South Florida among law enforcement officials and described as somewhat available by epidemiologists/ethnographers. According to NDIC, 1 kilogram of heroin sold for \$75,000 in Miami, and retail prices were roughly \$60–\$120 per gram during fiscal year (FY) 2002.

The most common street unit of heroin was a bag of heroin (roughly 20 percent purity) weighing about one-tenth of a gram that sold for \$10.

### Other Opiates

Deaths from opiates other than heroin (including hydrocodone, oxycodone, and methadone) have been tracked in Florida since 2000. Beginning in 2003, morphine and propoxyphene were included in the Florida Medical Examiners Commission's surveillance monitoring program. Methadone-related deaths statewide declined 3 percent between the second half of 2002 and the first half of 2003, when they totaled 278. This followed an increase of 56 percent between 2001 and 2002. Methadone was the cause of death in 63 percent of the methadone cases in the first half of 2003. The number of hydrocodone deaths declined 5 percent between the second half of 2002

and the first half of 2003 to 272 cases after having increased 32 percent from 420 in 2001 to 554 in 2002. Hydrocodone was the cause of death in 32 percent of the hydrocodone-related deaths in the first half of 2003. The number of oxycodone deaths declined 4 percent between the second half of 2002 and the first half of 2003 after having increased 10 percent from 537 in 2001 to 589 in 2002. Oxycodone was the cause of death in 47 percent of the oxycodone cases in the first half of 2003. When the above ME mentions are added to those for heroin, these opioid-related ME mentions in Florida in the first half of 2003 totaled 997, a 6-percent decline from the previous 6 months. With the addition of morphine and propoxyphene, the total for this category during the first half of 2003 was 1,343 statewide. Most were polydrug episodes, including 88 percent of the oxycodone ME cases, 87 percent of the methadone ME cases, 84 percent of the hydrocodone ME cases, 81 percent of the heroin deaths, 80 percent of propoxyphene deaths, and 66 percent morphine ME cases (exhibit 1).

Miami-Dade County reported six oxycodone-related deaths during the first half of 2003 (exhibit 4); five were oxycodone-induced deaths. Broward County recorded 28 oxycodone-related deaths, of which 19 (68 percent) were oxycodone-induced. Only one of the deaths involved oxycodone alone. In Palm Beach County, there were 35 oxycodone-related deaths; 15 were oxycodone-induced. Another drug was present in 89 percent of the cases.

Miami-Dade County reported six hydrocodone-related deaths during the first half of 2003; two (33 percent) were hydrocodone-induced. Broward County recorded 13 hydrocodone-related deaths during that period, and 8 (62 percent) were hydrocodone-induced. In Palm Beach County, 5 (23 percent) of the 22 hydrocodone-related deaths in the first half of 2003 were hydrocodone-induced.

Miami-Dade County reported one methadone-related death during the first half of 2003. Broward County recorded 18 methadone-related deaths during that period, with 9 (50 percent) considered methadone-induced. In Palm Beach County, there were 37 methadone-related deaths in the first half of 2003; 30 (81 percent) were considered methadone-induced.

Miami-Dade County reported 13 morphine-related deaths during the first half of 2003; none were morphine-induced deaths. Broward County recorded 11 morphine-related deaths, of which 5 (45 percent) were morphine-induced. In Palm Beach County, there were 20 morphine-related deaths in the first half of 2003; 8

(40 percent) were morphine-induced deaths. Miami-Dade County reported two propoxyphene-related deaths during the first half of 2003, of which one was a propoxyphene-induced death. Broward County recorded seven propoxyphene-related deaths, of which one (14 percent) was propoxyphene-induced. In Palm Beach County, there were 15 propoxyphene-related deaths, none of which was considered to have been caused by the drug.

The number of DAWN narcotic analgesics ED mentions in Miami-Dade County increased 191 percent between 1995 and 2002, rising from 117 mentions to 340 (exhibit 2). The number of ED mentions for narcotic analgesics/combinations increased from 199 to 453 during the same period. Oxycodone ED mentions rose 10,600 percent, from 1 in 1995 to 107 in 2002. Oxycodone-in-combination with acetaminophen ED mentions increased 133 percent, rising from 24 ED mentions to 56 over the same 7-year period. Hydrocodone-in-combination with acetaminophen ED mentions increased significantly by 300 percent, from 10 to 40 mentions over the same period. There were 3 methadone ED mentions in 1995, and 23 in 2002, a significant increase of 667 percent.

During the first half of 2003, there were 67 oxycodone ED cases at BGMC, as compared with 53 in the last six months of 2002. There were 47 (70 percent) males; 47 (70 percent) were White, and the ages of these patients ranged from 18 to 58. Three were teenagers, 8 patients (12 percent) were in their twenties, 20 (30 percent) were in their thirties, 30 (45 percent) were in their forties, and 6 (9 percent) were age 50 or older. OxyContin was specifically mentioned in 54 (81 percent) of these cases in the first half of 2003 compared with 39 (74 percent) of 53 cases in the second half of 2002. In 25 (37 percent) of the oxycodone ED cases, the drug was being intentionally abused, in 27 (40 percent) of the cases the oxycodone was being used for other psychic effects (such as excessive amounts for pain), and in 5 (7 percent) of the cases the oxycodone was taken in a suicidal gesture. Coingestants in the oxycodone cases included benzodiazepines in 14 (21 percent) of the cases, marijuana in 16 (34 percent), cocaine in 20 (30 percent), and other opioids such as heroin or methadone in 11 (16 percent) cases.

The BSO Crime Lab tested 130 oxycodone cases in the first half of 2003, a 24-percent increase from the 105 such cases in the second half of 2002. The BSO Crime Lab tested 115 oxycodone cases in the first half of 2002, 95 in the last 6 months of 2001, 80 in the first 6 months of 2001, 71 in the last 6 months of 2000, and

69 in the first 6 months of 2000.

Additionally, there were 88 hydrocodone crime lab cases in the first 6 months of 2003, compared with 77 cases in the last half of 2002, and 88 such cases in the first 6 months of 2002. This compares with 69 hydrocodone cases in the last 6 months of 2001, 44 in the first 6 months of 2001, 58 in the last 6 months of 2000, and 69 in the first half of 2000.

Florida is one of the largest markets for OxyContin (a time-release version of oxycodone). In July 2002, a tractor-trailer truck containing \$3 million in prescription drugs was hijacked en route to Broward County. A proposal to establish a prescription drug monitoring program in Florida to combat prescription drug abuse failed to pass the State legislature in 2002 and again in 2003.

## Marijuana

Marijuana is still the most common illicit drug involved in ED visits among young people, while cocaine is the most common illicit drug among older ED patients. Marijuana ED mentions increased in Miami-Dade County between 1995 and 2002, and ED mentions increased in Broward County in the most recent reporting period as well.

Marijuana cigarettes to which powder cocaine has been added are referred to locally as “dirties.” This and other polydrug abuse patterns with marijuana may be key factors in the rising consequences linked to marijuana. “Dirties” are promoted as a less severe marijuana and cocaine combination than “Geek joints,” which are made with crack cocaine. “Dirties” are often used in sexual situations, as is the combination of smoking marijuana and ingesting pills of sildenafil (Viagra). It was once thought that smoking powder cocaine would not provide the user with the desired effects of the drug. Yet, the paper chamber of the marijuana joint allows for the dry-distillation of the powder cocaine and release of its effects when it is smoked. The name “dirties,” referring to the marijuana and cocaine joint, is used in a song by a local hip-hop singer.

Cannabinoids were detected in 378 deaths statewide in Florida during the first half of 2003, a 13-percent increase from the 335 marijuana-related deaths in the previous 6 months.

Miami-Dade County’s per capita rate of 111 marijuana ED mentions per 100,000 population in 2002 ranked fifth among the 21 DAWN metropolitan areas. The coterminous United States rate was 47 marijuana

ED mentions per 100,000 population. In Miami-Dade County, the number of marijuana ED mentions reported by DAWN rose significantly by 142 percent between 1995 and 2002, from 966 to 2,337 (exhibit 2). A demographic profile of the Miami cases in 2002 reveals that the marijuana mentions primarily represented patients who were male (75 percent) and Black (50 percent). Whites represented 36 percent and Hispanics represented 13 percent. Eight percent of these marijuana ED mentions were made by patients who were age 12–17; 29 percent were by those age 18–25, 25 percent were by those age 26–34, and 38 percent were by those age 35 and older. Other drug mentions were involved in 76 percent of the marijuana ED mentions in 2002 (exhibit 3).

At the BGMC, there were 449 marijuana ED mentions in the first half of 2003, accounting for 36 percent of all drug-related ED mentions and representing a 10-percent increase over the previous 6 months. Marijuana was the sole illicit drug of abuse (with or without alcohol) in 193 (43 percent) of the marijuana ED cases. Seventy-five percent of those involved with marijuana ED cases were male; 11 percent were teenagers, 30 percent were in their twenties, 30 percent were in their thirties, 21 percent were in their forties, and 9 percent were age 50 or older. The races of these patients were as follows: 57 percent White, 33 percent Black, and 10 percent Hispanic/other or unknown.

There were 176 ED cases of marijuana-in-combination with cocaine, which was discussed briefly in the cocaine section of this report. Benzodiazepines were involved in 14 percent of the BGMC marijuana ED cases, with 34 percent of these cases specifically identified as involving alprazolam (Xanax). Marijuana was also found in combination with ecstasy or an amphetamine in 18 (4 percent) of all marijuana cases. Alcohol was the only documented coingestant in 16 percent of all marijuana ED cases.

The most common reasons for marijuana-related BGMC ED visits were as follows:

1. Depression/suicidal—30 percent
2. Psychiatric related (hallucinations, anxiety, bizarre behavior, delusions, etc.)—12 percent
3. Trauma—7 percent
4. Chest pain—7 percent

Marijuana remained the most commonly abused illicit drug among young people visiting the ED. Roughly

45 percent of all illicit substance abuse ED cases for those age 12–25 involved marijuana. This proportion was down from 54 percent in the second half of 2002.

There were 526 primary marijuana addiction treatment clients during the first 6 months of 2003, totaling 55 percent of the Spectrum Program admissions. Those younger than 18 accounted for 46 percent of these patients; 22 percent were 18–25, 14 percent were 26–34, and 18 percent were older than 34. White non-Hispanics accounted for 48 percent of the marijuana treatment clients, Hispanics for 19 percent, and Blacks for 33 percent.

There were 457 marijuana cases worked by the BSO Crime Lab in the first half of 2003, a 59-percent increase from the 287 cases in the previous 6 months. 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 commercial grade marijuana sold for \$450–\$1,500 per pound. One-quarter ounce of sinsemilla, with an estimated tetrahydrocannabinol (THC) content of 10–18 percent, sold for \$100–\$120. Prices for a pound of high-potency sinsemilla marijuana have been increasing, from \$4,000 in 2001 to \$5,000 in 2003.

The 2002 Florida Youth Substance Abuse Survey reported decreases in lifetime marijuana use statewide since the 2000 Survey, with 8th grade proportions declining from 24.4 to 19.8 percent, those for 10th graders declining from 38.6 to 32.9 percent, and those for 12th graders also declining from 43.9 to 40.6 percent. Students in Miami-Dade County recorded the lowest current (past-30-day) marijuana use in the State at 6.5 percent of all 6th–12th graders. Ten percent of Broward County students reported current marijuana use; this ranked the fifth lowest in the State among the 60 counties reporting. Statewide, 12.1 percent of students reported current marijuana use. The results of The Miami Coalition School Survey in 2003 revealed that the community's 10-year prevention plan to reduce 1995 youthful drug use prevalence rates by 50 percent by 2005 has been achieved 2 years early (exhibit 5). The proportion of current marijuana use reported by 7th–12th graders declined from 13.4 percent in 1995 to 6.7 percent in 2003. In 2001, current marijuana use was reported by 17 percent of high school students in Miami-Dade County, this proportion ranked as the lowest among the 14 metropolitan areas in the Nation with weighted data in the CDC's Youth Risk Behavior Survey. Broward County high school students reported a rate of 21.8 percent for cur-

rent marijuana use.

### **Gamma Hydroxybutyrate (GHB)**

GHB, an anesthetic, has been a commonly abused substance in South Florida for the past 7 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. These drugs have become popular in the techno-dance scene and at other parties. 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.

In all of Florida, GHB-related deaths increased from 23 in 2000 to 28 in 2001 and then declined by 32 percent to 19 in 2002. The number of GHB-related deaths declined from 12 to 7 between the first and second halves of 2002. There were six GHB-related deaths reported statewide in the first 6 months of 2003.

There was only one GHB-related ME mention in Broward County in the first half 2003. The manner of death was suicide and also involved the narcotic analgesics, hydrocodone and oxycodone.

From 1996 to 2002 in Broward County, there were a total of 14 deaths that involved GHB in some way (2 in 1996, 2 in 1997, 3 in 1998, 1 in 1999, 3 in 2000, and 3 more in 2002). In 12 of these cases, GHB was mentioned as 1 of the causes of death. In one other case, the patient was admitted to a hospital for GHB intoxication, appeared to have recovered from that, and subsequently succumbed because of other reasons. In one other death, the patient was brought dead on arrival to the BGMC ED as a multiple drug overdose, which included GHB by history. However, the ME found GHB to be non-contributory.

Ten of the 12 GHB-caused fatalities in 1996–2002 involved coingestants, including alcohol, cocaine, marijuana, benzodiazepines, opioids, carisoprodol (Soma), sertraline (Zoloft), gabapentin, amitriptyline, and methylenedioxymethamphetamine (MDMA or ecstasy). Alcohol was detected in 7 of 12 cases in concentrations of 90–340 milligrams per deciliter (legally drunk in Florida is 80 milligrams per deciliter). Two fatalities involved no known or detected coingestants and no alcohol. These cases are important to point out because they refute the commonly espoused misperception that GHB is only fatal when

taken with another central nervous system depressant. Two of the 12 fatalities were ruled suicides and, as mentioned earlier, had extremely high levels of GHB in the blood.

In Miami-Dade County, DAWN ED mentions for GHB totaled 38 in 2002, a 17-percent decline from 46 in 2000 (exhibit 2).

There has been a dramatic decrease in the number of GHB ED cases treated during the most recent reporting period at BGMC. Thirteen people were treated for GHB or GHB precursor overdose in the first 6 months of 2003. Alcohol was involved in 54 percent of the cases by history or because an alcohol level was obtained. The GHB cases where a blood alcohol level was obtained ranged from 0 to 474 milligrams per deciliter.

The location of the incident prompting the ED visit was a local bar/nightclub or the beach in 38 percent of the cases. Almost one-half (46 percent) of these cases presented to the ED between 11 p.m. and 6 a.m. Six patients were temporarily unresponsive and found unconscious, and one required intubation and mechanical ventilation. Most patients were treated and released from the ED within several hours. However, 2 of the 13 patients required hospital admission.

In the first half of 2003, six GHB, two GBL, and three butanediol cases were worked by the BSO Crime Lab. In the second half of 2002, there were two GHB, zero GBL, and six butanediol cases. In the first half of 2002, there were six GHB, eight GBL, and six butanediol cases. In the last half of 2001, there were one GHB, eight GBL, and three butanediol cases analyzed by the BSO Crime Lab. This compares with two GHB, five GBL, and four butanediol cases in the first half of 2001.

### **Methylenedioxymethamphetamine (MDMA or Ecstasy)**

MDMA, a methylated amphetamine, has become popular as a club drug and at techno-dance events, such as raves and private parties. The psychoactive, synthetic, DEA Schedule I drug has gained the reputation as a drug that can promote empathy, relaxation, and sexual feelings. The most recent measures of its abuse suggest problems may have peaked in 2001.

Ecstasy pills generally contain 75–125 milligrams of MDMA, although pills are often adulterated and may contain no MDMA. Wholesale prices are approximately \$8 per pill for 100 units, but retail prices in

clubs and raves are \$10–\$50.

The major sources of the designer logo-emblazoned pills seem to be clandestine labs in Western Europe, especially the Netherlands and Belgium (and more recently Spain). The pills enter South Florida from the Caribbean because of post 9-11 airline security.

There were 70 methylated amphetamine-related deaths in the State of Florida during the first half of 2003, yet the number for each county has not yet been reported. In 2002, there were 126 methylated amphetamine-related deaths statewide. Of these deaths, eight were in Miami-Dade County; four of these were considered to have been caused by the drug. There were nine methylated amphetamine-related deaths in Broward County during 2002, and the drug was considered the cause of death in three of these cases. Florida recorded 147 methylated amphetamine-related deaths statewide in 2001; in 37 (25 percent) of these cases, the drug was considered the cause of death.

In Broward County, MDMA was related to three deaths in the first 5 months of 2003, but it was not considered the cause of any of these deaths. One of these MDMA-related cases was an accidental death involving a 26-year-old Native American male who also ingested oxycodone and alprazolam. A second MDMA case was a suicide hanging involving a 38-year-old White male who also tested positive for methylenedioxyamphetamine (MDA) and alcohol. The third MDMA death mention involved a 23-year-old Black male gunshot wound homicide victim who also had used cocaine and marijuana.

In Miami-Dade County, 135 MDMA ED mentions were reported by DAWN in 2002, a 27-percent decline from 2001 (exhibit 2).

It has become increasingly difficult to determine by chart review whether ecstasy or other types of amphetamines were involved with BGMC ED cases. This is because methamphetamine and other amphetamines have become increasingly popular. In addition, patients rarely report the exact amphetamine that was taken; therefore it is rarely documented. Although the urine toxicology screen may be positive for amphetamines, this does not reliably distinguish between MDMA and other amphetamines. Since some of the same patient populations are using both, and in fact since many ecstasy pills may be adulterated or substituted for other amphetamines, the picture becomes even less clear.

Among the 62 amphetamine-type cases at BGMC in the first half of 2003, the actual number of ecstasy

mentions was 37 (60 percent). “Crystal meth” was specifically mentioned in 4 cases (6 percent), and there were 22 (34 percent) other cases in which amphetamines were involved, but not specifically identified.

In the first half of 2003, White males accounted for 65 percent of the 37 MDMA BGMC ED cases. Patients ranged in age from 17 to 42. Six of these patients were teenagers, 70 percent were in their twenties, 10 percent were in their thirties, and 5 percent were in their forties.

In the first half of 2003, MDMA was the sixth most common case worked in the BSO Crime Lab, following cocaine, marijuana, oxycodone, hydrocodone, and alprazolam. In the first half of 2003, 79 BSO MDMA cases were worked, along with 4 for MDA. Between the first and second halves of 2002, the number of MDMA cases worked by the BSO Crime Lab has declined by 36 percent, from 115 to 73. This followed a decline between the first and second halves of 2001, from 132 to 121 cases worked, respectively.

### Other Stimulants

Methamphetamine abuse is an emerging drug epidemic in the “outbreak” stage across the region. Its abuse is linked to the techno-dance scene. The drug is being promoted to populations of men who have sex with other men who often combine it with sildenafil (Viagra) for high-risk sexual behavior known as “Party and Play.” Sources report the drug is being shipped by overnight delivery from California. Mexican drug trafficking organizations were also mentioned as another source of the drug locally in 2003. Law enforcement sources confirm increased local trafficking and relatively small lab production of methamphetamine.

In addition, local law enforcement officials and ethnographers report a recent increase in crystal methamphetamine use, particularly among gay men, who refer to the drug as “Tina.”

Either d-methamphetamine or l-methamphetamine was identified in 43 percent of the 126 methylated amphetamine-related deaths in Florida in 2002 in which the specific type of methylated amphetamine was identified. The drugs were detected in 30 percent of the 147 methylated amphetamine-related deaths statewide in 2001.

The number of DAWN amphetamine ED mentions totaled 83 in 2000, 64 in 2001, and 73 in 2002 in Miami-Dade County (exhibit 3). Between 1995 and

2002, there was a 200-percent increase in the number of methamphetamine-related ED mentions, from 5 to 15. The 15 methamphetamine ED mentions in 2002, however, reflected a 44-percent decline from the 27 mentions in 2001. It is still unclear how hospital staffs classify which cases are for amphetamines and which are for methamphetamine.

In the first 6 months of 2003, there were 62 BGMC ED cases in which amphetamines of some type were either mentioned in the history or detected on a toxicology screen. This number is greater than the 37 MDMA cases. White males accounted for 39 (63 percent) of the amphetamines cases. Eight of these amphetamine cases were teenagers, 37 (60 percent) were in their twenties, 8 (13 percent) were in their thirties, 6 (10 percent) were in their forties, and 3 (4 percent) were age 50 or older. A smokeable form of methamphetamine was specifically documented in 10 cases, up from 2 cases in the first half of 2002.

In the first half of 2003, there were 36 methamphetamine BSO Crime Lab cases, compared with 47 in the second half of 2002, and 41 in the first half of 2002. The total 2002 methamphetamine crime lab cases was more than double the number of cases in 2001.

Lifetime methamphetamine use was reported by 4.8 of Miami-Dade high school students and 5.6 of Broward County students in the CDC’s 2001 Youth Risk Behavior Survey.

Methylphenidate (Ritalin) has also received local and national media attention as being abused by college students either orally or crushed and used intranasally. Hotline calls and student personnel administrators at local universities confirm the suspected abuse of methylphenidate.

### Lysergic Acid Diethylamide (LSD)

LSD, a synthetic hallucinogen popularized in the 1960s in the United States, is usually abused orally in small tablets (“microdots”), thin squares of gelatin (“windowpanes”), or blotter paper. It is not easily detected on most hospital urine toxicology screens. The drug became popular again in the 1990s at lower doses as a stimulant and hallucinogen.

There were 42 LSD DAWN ED mentions in Miami-Dade County in 2002, a significant decline from 1995, 2000, and 2001 (exhibit 2). LSD appears to be far less available or is losing popularity among youth.

In 2003, the Miami-Dade School Survey found that

only 0.6 percent of students in grades 7–12 reported current LSD use, down from 1.7 percent in 2001 (exhibit 5).

### **Benzodiazepines**

For a variety of reasons, it is much more difficult to track benzodiazepine abuse than other forms of substance abuse. However, there are certainly some indicators that benzodiazepines in general and alprazolam (Xanax) in particular are a substantial problem. Benzodiazepines were second only to alcohol in their involvement in drug-related deaths throughout Florida in 2002.

There were 842 benzodiazepine-related deaths in Florida during the first half of 2003, representing a 3-percent increase over the 821 ME mentions in the second half of 2002. Of the 2002 deaths, a benzodiazepine was identified as the cause of death in 346 cases (or 21 percent), a similar proportion is estimated for this category in the first half of 2003.

During the first 5 months of 2003, there were 75 deaths related to benzodiazepines in Broward County, including 28 cases (or 37 percent) in which a benzodiazepine was detected at a lethal dose level. The ages

of those who died with a benzodiazepine in their system ranged from younger than 1 to 88, with an average age of 44.5. Whites accounted for 91 percent of these deaths, Blacks and Hispanics each represented 4 percent, and there was one Native American decedent. Specifically, there were 83 benzodiazepine mentions involved in these 75 deaths including: diazepam (42 percent), alprazolam (41 percent), temazepam (5 percent), and other or non-specified benzodiazepines (12 percent).

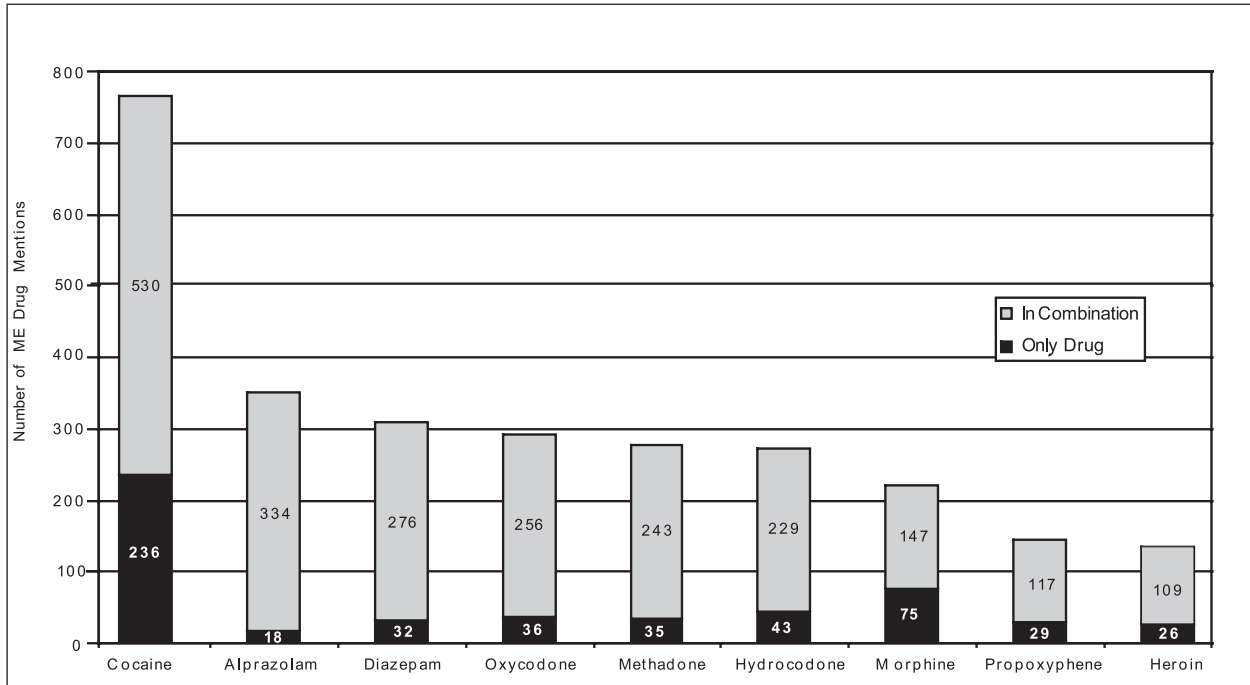
Benzodiazepines in general and alprazolam (Xanax) in particular appear popular among opioid abusers. Benzodiazepines were involved in 73 percent of the Broward County narcotic analgesic deaths and 44 percent of the heroin deaths during the first half of 2003 (exhibit 6). In addition, benzodiazepines were involved in 33 percent of Broward County cocaine deaths. Two MDMA mentions, one methamphetamine mention, and one marijuana mention were included among the benzodiazepines deaths in Broward County.

In Miami-Dade County, there were 1,029 benzodiazepine-related DAWN ED mentions in 2002, representing a 39-percent increase from 1995 (exhibit 2). Alprazolam accounted for 409 of these mentions in

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**Exhibit 1. Florida Drug-Related Deaths By Single Drug or In-Combination: 1H 2003**



SOURCE: Florida Department of Law Enforcement, Medical Examiners Commission

**Exhibit 2. Number of ED Mentions of Selected Drugs in Miami-Dade County: 1995–2002**

Drug	1995	1996	1997	1998	1999	2000	2001	2002
Cocaine	3,078	3,104	3,254	3,553	4,018	4,383	4,341	5,055
Heroin	333	388	591	767	917	1,452	1,666	1,784
Marijuana	966	1,011	1,024	1,113	1,283	1,768	1,932	2,337
Amphetamines	... <sup>1</sup>	...	28	64	53	83	64	73
Methamphetamine	5	9	10	16	9	15	27	15
MDMA (Ecstasy)	4	9	28	12	59	105	184	135
LSD	83	54	63	54	50	55	55	42
PCP	8	15	14	14	9	15	9	8
GHB	0	...	2	10	29	46	33	38
Benzodiazepines	742	769	715	761	750	963	1075	1029
Narcotic Analgesics/ Combinations <sup>2</sup>	199	202	213	274	274	370	437	453
Narcotic Analgesics	117	120	139	190	197	242	304	340
Oxycodone	1	0	2	1	2	8	105	107
Oxycodone/Acetaminophen	24	24	24	33	37	63	66	56
Hydrocodone/Acetaminophen	10	13	23	16	10	29	41	40
Methadone	3	2	6	15	10	15	19	23

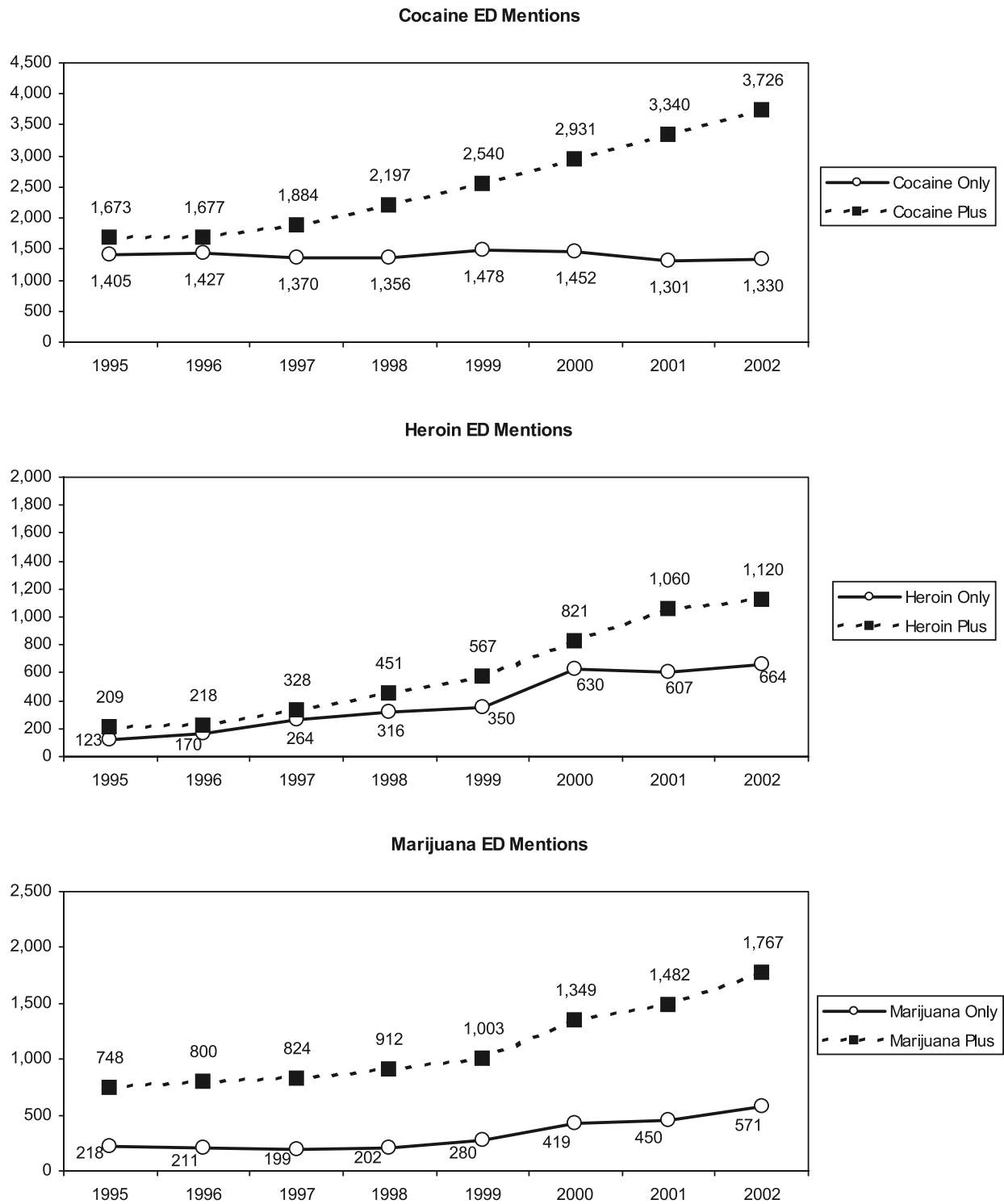
<sup>1</sup>Dots (...) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.

<sup>2</sup>Includes narcotic analgesics/combinations not otherwise specified.

SOURCE: DAWN, OAS, SAMHSA

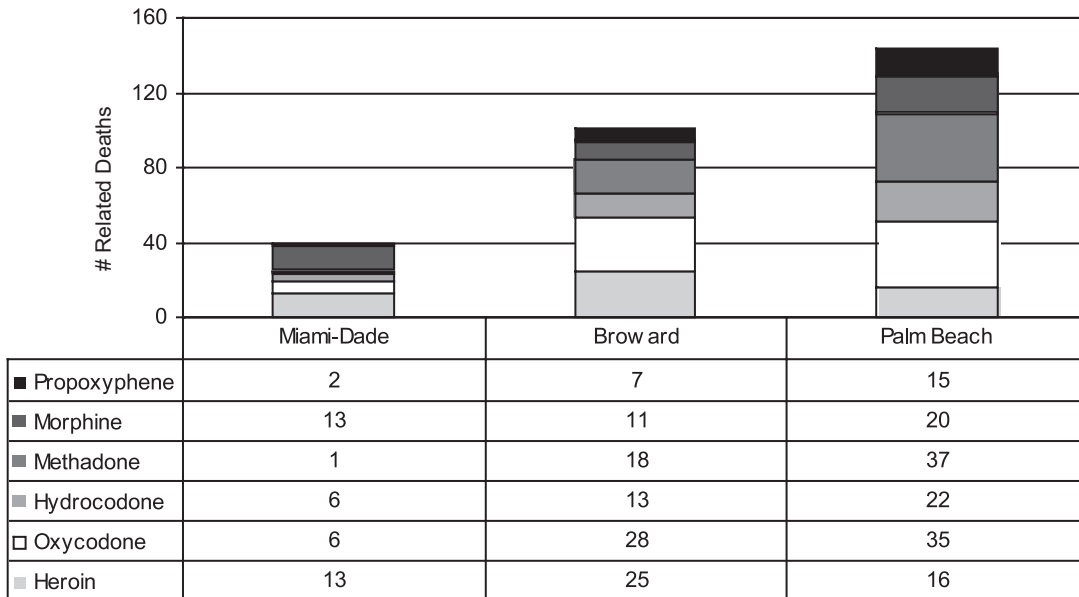


**Exhibit 3. Number of Single vs. Multi-Drug ED Mentions for Selected Drugs in Miami-Dade County:1995–2002**



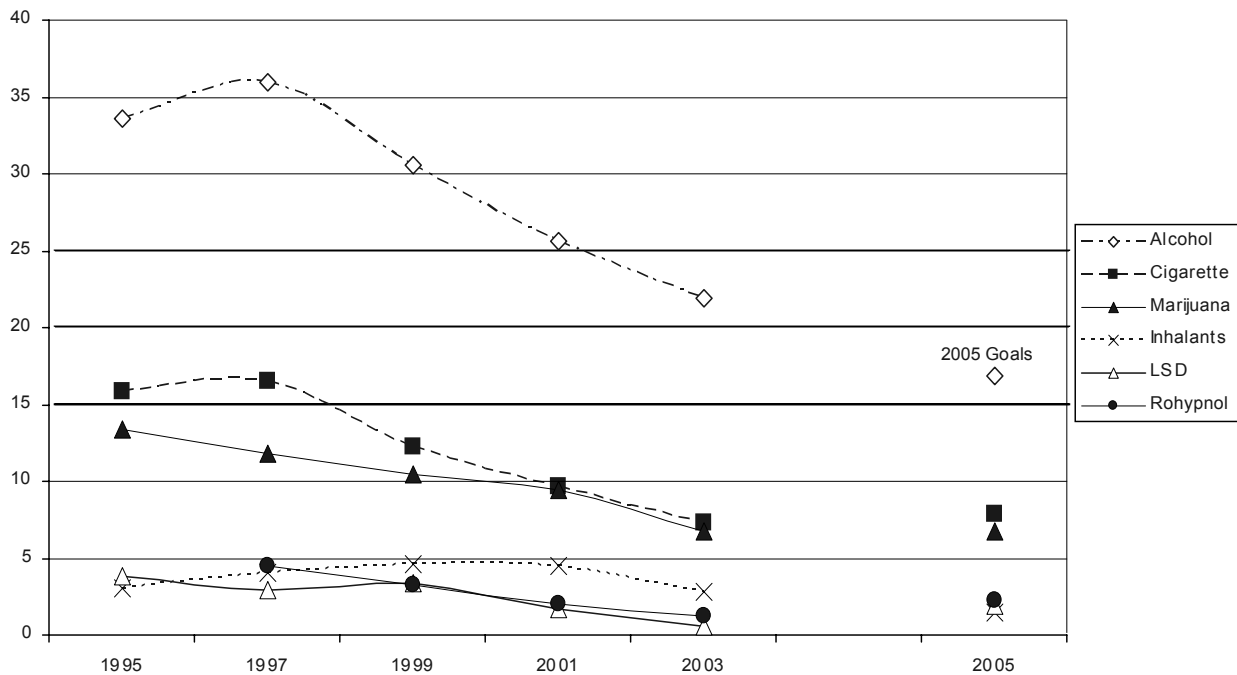
SOURCE: DAWN, OAS, SAMHSA

**Exhibit 4. South Florida Opioid-Related Deaths: 1H 2003**



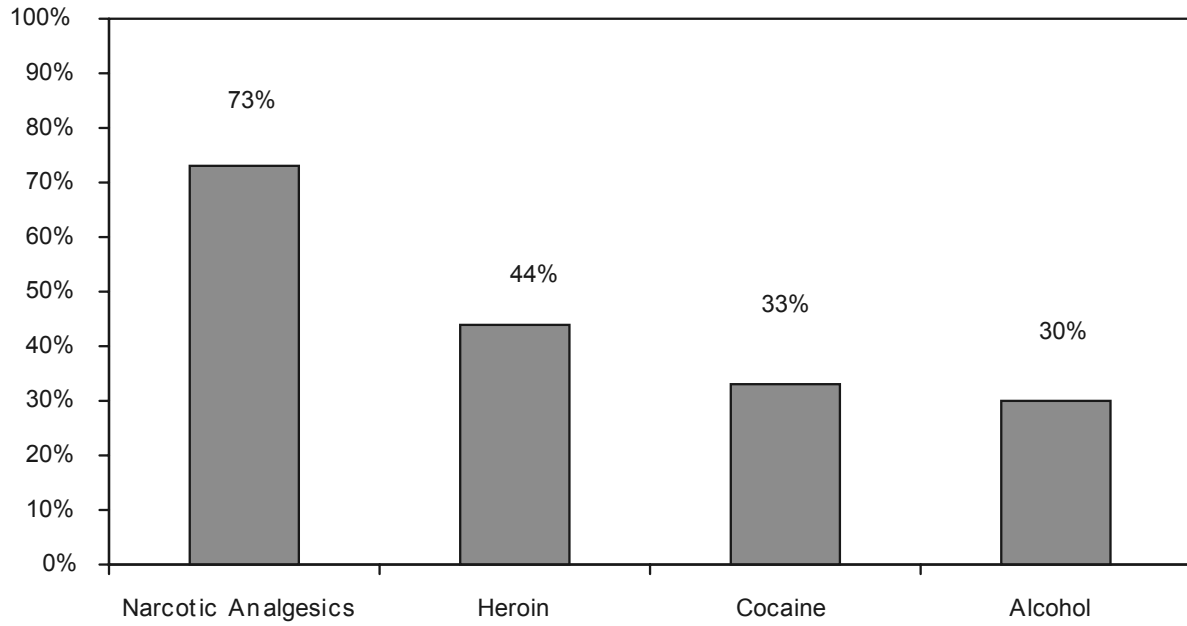
SOURCE: Florida Department of Law Enforcement, Medical Examiners Commission

**Exhibit 5. Current (Past-30-Day) Drug Reported by Miami-Dade Students Grades 7–12 and 2005 Goals, by Percent: 1995–2003**



SOURCE: The Miami Coalition School Survey: Priority One Prevention Plan 2003

**Exhibit 6. Benzodiazepines Detected Among Deaths from Other Drugs in Broward County, Florida by Percent: 1H 2003**



SOURCE: Broward County Medical Examiners Office 2003

# Drug Abuse Patterns and Trends in Minneapolis/St. Paul

Carol L. Falkowski<sup>1</sup>

## ABSTRACT

*The consequences of cocaine abuse in the Twin Cities remain apparent, with hospital ED mentions and the proportion of cocaine-positive adult male arrestees showing upward trends. The heightened level of indicators related to heroin and other opiate abuse also continued in 2003. Opiate-related deaths surpassed those related to cocaine in both Minneapolis and St. Paul, fueled by high-purity heroin at low prices and the escalating abuse of prescription narcotic analgesics (painkillers). The high potency, smokeable form of methamphetamine known as 'glass' was reported by numerous law enforcement agencies, whose attention was increasingly directed toward both the growing abuse and in-home manufacture of methamphetamine. A total of 57 children (including two fatalities) were exposed to operational methamphetamine labs in Minnesota in 2002, with most living under the same roof as the lab. This compares to only 11 in 2001. More people entered addiction treatment programs for marijuana than for any other illicit drug, and one-half of marijuana admissions were younger than 18. Marijuana-related hospital ED episodes stabilized in 2002. A new type of hallucinogen, known as 'Foxy Methoxy,' also appeared in the Twin Cities for the first time in 2003.*

## INTRODUCTION

This report is produced twice annually for participation in the Community Epidemiology Work Group 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. It is compiled using the most recent available data and information from multiple sources.

### Area Description

The Minneapolis/St. Paul metropolitan area includes the city of Minneapolis (Hennepin County), the capital city of St. Paul (Ramsey County), and the surrounding counties of Anoka, Dakota, and Washington. According to the 2000 census, the population of the metropolitan area is 2,482,353, roughly one-half of

the Minnesota State population. More than one-half (56 percent) of the Ramsey County population lives in the city of St. Paul, and one-third (34.2 percent) of the Hennepin County population live in the city of Minneapolis. The remainder of the State is less densely populated and rural in character. To the north, Minnesota shares an international border with Canada, and to the west it borders North Dakota and South Dakota, two of the country's most sparsely populated States.

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. The total State population increased 9 percent from 1990 to 1998, while the minority population increased 45 percent. The Hmong population has recently been estimated at 66,000, making the Twin Cities home to the largest Hmong population of any U.S. city. An estimated 40,000 Somalis also reside in the metropolitan area.

### Data Sources

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

- **Hospital emergency department (ED) drug mentions data** were obtained from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). These are weighted estimates of all drug abuse-related ED mentions in non-Federal, short-term general hospitals in the Minneapolis/St. Paul Standard Metropolitan Statistical Area through 2002. A single drug abuse-related ED episode can involve the "mention" of up to four drugs and alcohol-used-in-combination.
- **Treatment data** are from addiction treatment programs (residential, outpatient, extended care) in the five-county metropolitan area as reported on the Drug and Alcohol Abuse Normative Evaluation System of the Minnesota Department of Human Services from 1998 through June 2003.

<sup>1</sup>The author is affiliated with the Hazelden Foundation, Butler Center for Research, Center City, Minnesota.

- **Poison center data** are from the Hennepin Regional Poison Center, Toxic Exposure Surveillance System (TESS) for 2001–2003.
- **Arrestee drug testing data** on drug abuse among people arrested in Hennepin County are from the Arrestee Drug Abuse Monitoring (ADAM) program of the National Institute of Justice (NIJ) at the U.S. Department of Justice. The ADAM program is locally administered by the Council on Crime and Justice in Minneapolis. Researchers interviewed a sample of 906 arrestees in Minneapolis in 2002.
- **Law enforcement data** and information were obtained from various county, city, and Federal agencies.
- **Crime lab data** on seizures and purity level were obtained from the Minneapolis Department of Health and Family Support through September 2003.
- **Acquired immunodeficiency syndrome (AIDS) data** were obtained from the Minnesota Department of Health through 2002.
- **Additional information** is from interviews with program staff of treatment programs, poison control specialists, and school-based “chemical health” specialists through November 2003.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

Cocaine maintained a strong presence in the Twin Cities in 2003, with 30 cocaine-related deaths in Hennepin County in 2003 (through September), compared with 34 in all of 2002. Ramsey County reported 6 cocaine-related deaths in 2003 (through September) and 11 in 2002.

As shown in exhibit 1, cocaine ED mentions totaled 1,454 in 2002, compared with 1,105 in 2001. The rate of cocaine ED mentions in Minneapolis/St. Paul was 55 per 100,000 population in 2002, compared with 43 in 2001.

In the first half of 2003, 12.8 percent of admissions to addiction treatment programs were for primary abuse of cocaine, mostly crack cocaine. More than one-third (34.4 percent) of primary cocaine admissions in the first half of 2003 were female, and one-half were African-American (exhibit 2a).

Cocaine metabolites were detected in 30.8 percent of adult male arrestees in Minneapolis in 2002, compared with 27.8 percent in 2001. Nationwide, the presence of cocaine among adult male arrestees ranged from a high of 49.4 percent in Atlanta to a low of 9.1 percent in Honolulu.

Gangs continued to play a significant role in the street-level, retail distribution of cocaine, especially crack. Cocaine-related law enforcement efforts showed mixed patterns in the wake of the increased presence of methamphetamine in the metropolitan area. Cocaine prices varied, but the drug generally sold for \$100 per gram, \$200 per “eightball” (one-eighth ounce), \$700–\$800 per ounce, and \$22,000 per kilogram. The price of a rock of crack was \$10–\$20.

##### Heroin

The heightened level of heroin-related indicators continued in 2003. Opiate-related deaths, most from accidental heroin overdose, again surpassed those for cocaine in both cities, fueled by high-purity heroin at low prices and in steady supply.

Hennepin County reported 35 opiate-related deaths in 2003 (through September), compared with 59 in all of 2002. Ramsey County reported 15 opiate-related deaths in 2003 (through September), compared with 18 in 2002.

Heroin ED mentions totaled 338 in 2001 and 426 in 2002 (exhibit 1). The rate of heroin mentions per 100,000 population was 16 in 2002, compared with only 4 in 1995, a significant increase of 348 percent.

Of clients entering addiction treatment programs in the first half of 2003, 3.2 percent reported heroin as the primary substance problem, down slightly from 5.2 percent in 2002 (see exhibits 2a and 2b). The vast majority (79.2 percent) of heroin admissions in the first half of 2003 were age 26 and older, and around one-half (51.6 percent) reported injection as the primary route of administration (exhibit 2a). Sniffing was reported by 45.7 percent of admissions. Smoking heroin, known as “chasing the dragon” or “foiling” in Minneapolis, was reported by less than 3 percent of admissions as the primary route of administration.

Six methadone maintenance programs served roughly 1,400 clients in the metropolitan area. While patients who were newly enrolled in some of these programs may be reflected in the treatment data, private for-profit programs do not report to the Drug and Alcohol Abuse Normative Evaluation System.

Among Minneapolis male arrestees in 2002, 5.1 percent tested opiate-positive. Nationally, the presence of opiates among adult male arrestees in 2002 ranged from a high of 26.0 percent in Chicago to none in Woodbury, Iowa.

Heroin seized by law enforcement officers included white, off-white, or tan powder, in addition to dark-colored Mexican “black tar” heroin. Since 2000, heroin prices remained at record low levels, with prices per dosage unit or “paper,” ranging from \$20 to \$50. Grams sold for \$300–\$400 and ounces for \$900–\$2,000. Heroin purity levels remained high, thus increasing the risk of accidental overdose.

### **Other Opiates/Narcotics**

Prescription narcotic analgesics, used medically in the treatment of pain, are increasingly used as drugs of abuse for the heroin-like high they produce. DAWN collects data on emergency department incidents involving only the nonmedical use of these drugs.

In 2002, there were 1,040 hospital ED mentions involving the nonmedical use of narcotic analgesics, compared with 953 in 2001 and only 461 in 1996 (exhibit 1). The rate of narcotic analgesics/combinations mentions per 100,000 population rose significantly from 27 in 2000 to 40 in 2002.

Of particular concern within this category were drugs containing oxycodone—Percodan and Percocet (oxycodone combined with aspirin or acetaminophen) and the longer-acting OxyContin. Oxycodone/oxycodone combinations ED mentions increased significantly by 118 percent from 2000 to 2002 (from 101 to 220), and they accounted for 21.1 percent of the total narcotic analgesic ED mentions in 2002. ED mentions of oxycodone only increased significantly from 15 in 2000 to 129 in 2002. A growing number of law enforcement cases involved OxyContin as well. Two armed robberies of pharmacies occurred in the northern suburbs of St. Paul this fall by people seeking only OxyContin.

Within the Hmong community, opium smoking continued, as did the steady influx of packages containing opium shipped from Asia to residents of the Twin Cities. In August, U.S. Customs officials discovered 15 pounds of opium hidden in the walls of a coffin that had been shipped from Thailand to a St. Paul resident, who now faces 20 years in prison if convicted. An estimated 2–5 percent of the Hmong immigrant population regularly smokes opium.

### **Marijuana**

Marijuana indicators continued upward trends, although marijuana ED mentions appeared to stabilize in 2002 (exhibit 1). There were 47 marijuana ED mentions per 100,000 population in 2002, compared with 20 in 1995, a significant 129-percent increase. This may reflect a higher potency drug, more widespread use, and/or its growing use in combination with other substances, which can also precipitate acute medical consequences.

Marijuana was the primary substance problem reported by 22.6 percent of treatment admissions in 2003 (exhibit 2a), compared with only 8.0 percent in 1991. One-half were younger than 18, and 44.6 percent were entering treatment for the first time. The average age of first marijuana use among this group was 13.6 years.

In 2002 in Minneapolis, 54.2 percent of adult male arrestees tested positive for marijuana, ranking among the highest in the country, along with Albany (54.5 percent) and Oklahoma City (54.2 percent). The lowest proportion was in Laredo (26.1 percent).

Law enforcement sources noted an increased volume of marijuana cases, including a Minneapolis case involving more than 1,000 pounds in which marijuana concealed inside cookie boxes was shipped from Texas to a Twin Cities-area warehouse. Standard, commercial grade marijuana sold for \$50 per quarter ounce, \$150–\$175 per ounce, and \$600–\$900 per pound. Higher potency “BC bud” from British Columbia sold for \$100 per quarter ounce and up to \$400 per ounce. Individual joints typically cost \$5.

### **Methamphetamine and Other Stimulants**

The major stimulants of abuse other than cocaine are methamphetamine, also known as “meth,” “crystal,” or “crank,” and amphetamine, known as “speed” or “crank.” Most indicators rose again in 2003. Methamphetamine and amphetamine are available in white, tan, and various pastel colors.

Hennepin County reported 10 methamphetamine-related deaths in 2003 (through September), compared with 11 in 2002. One of the 2003 deaths included recent MDMA use cited as a significant contributing condition. Ramsey County reported six methamphetamine-related deaths in 2003 (through September), compared with three in 2002.

While deaths increased, ED mentions of methamphet-

amine stabilized in 2002, after increasing from 1998 to 2001 (exhibit 1).

Admissions to addiction treatment programs for methamphetamine accounted for 6.6 percent of admissions in the first half of 2003, compared with 5.2 percent in 2002 (see exhibits 2a and 2b). As shown in exhibit 2a, most (93.6 percent) of the methamphetamine admissions in the first half of 2003 were White, and 37.7 percent were female. Anecdotal reports from numerous school-based counselors and law enforcement sources note the emergence of methamphetamine abuse in area high schools. According to treatment data, 11 percent of admissions in 2002 involved people younger than 18. That proportion grew to 15.8 percent in 2003. Smoking was the most common route of administration (50.5 percent), followed by sniffing (30.3 percent) and injection (15.6 percent).

The biggest change noted by multiple law enforcement sources was the emergence of “glass” or “ice,” a type of methamphetamine which is typically smoked and resembles clear, glass shards.

The growth of makeshift, do-it-yourself methamphetamine labs continued. For example, in Dakota County 11 methamphetamine labs were discovered in 2002, compared with 18 through September 2003. Another county sheriff estimates that within his county, there is at least one operational methamphetamine lab every 5 square miles. The DEA reported involvement in 286 clandestine methamphetamine labs statewide in 2003 (through November), up from 239 in 2002 and a substantial increase from the 35 reported in 1998 (exhibit 4). Volatile and toxic raw ingredients, combined with the rudimentary lab conditions and inexperienced, often drug-impaired “cookers,” create hazardous conditions, which can lead to serious injury, fatalities, compromised health, and property damage. There is also long-lasting environmental contamination of areas surrounding methamphetamine labs.

The health and safety of people living in proximity to methamphetamine labs, in addition to those merely entering such a lab, are at risk because of exposure to the chemical gases, fumes, and byproducts, and the risk of sudden explosions, chemical burns, and fires. Young children are particularly susceptible to the dangers of prolonged exposure, even to relatively small amounts, since their liver and kidneys are not as efficient as adults in metabolizing toxins. Exhibit 3 shows the increasing number of children exposed to methamphetamine labs in Minnesota. In 2002, 57 children were exposed to methamphetamine labs in Minnesota; 47 lived under the same roof as an opera-

tional methamphetamine lab, and 2 died. Only 11 children in 2001 were exposed to such labs.

During a prolonged binge, it is not uncommon for a methamphetamine addict, awake for days at a time, to lose track of time entirely and to develop extreme paranoid delusions. Hence, minor children often do not have their basic daily needs met while under the care of a methamphetamine addict or lab operator.

In Minneapolis in 2002, 3.9 percent of adult male arrestees tested positive for methamphetamine. Honolulu had the highest proportion of methamphetamine-positive arrestees (44.8 percent), followed by Sacramento (33.5 percent), San Diego (31.7 percent), and Phoenix (31.2). The two ADAM cities in neighboring Iowa had proportions 4 and 5 times higher than in Minneapolis: Des Moines (20.2 percent) and Woodbury (16.4 percent).

Prices for methamphetamine were \$90–\$100 per gram, \$600–\$800 per ounce, and up to \$10,000 per pound. Glass sold for twice as much, because of its higher purity level.

The abuse of methylenedioxymethamphetamine (MDMA), known as “ecstasy,” “X,” or “e,” by young people, continued and was no longer limited to raves, suburban youth, or nightclub settings. A 21-year-old African-American male died in Hennepin County this year with recent MDMA use listed as a significant contributing condition. MDMA hospital ED mentions increased from 16 in 1999 to 77 in both 2001 and 2002 (exhibit 1). MDMA comes in small pills of different colors with various logos or corporate symbols imprinted on them, such as a Volkswagen Bug, the Nike swoosh, a Coca Cola bottle, Mitsubishi, or Mercedes. They also are imprinted with designs like a shark, a peace symbol, a handshake, doves, a smiley face, or an omega. MDMA typically sells for \$20 per pill.

Area crime lab analyses revealed that some pills sold as ecstasy actually contained a combination of other drugs, such as methamphetamine, ketamine, or methylenedioxyamphetamine (MDA), a chemical similar in effect to MDMA.

Khat, a plant used for its stimulant effects in East Africa and the Middle East, has appeared in the area for almost a decade, largely within the growing Somali communities. A bundle of khat, typically wrapped in banana leaves to preserve freshness, consists of 15–30 sticks with stems and leaves and sells for \$40. The plants lose potency rapidly, within 48

hours of being picked. The leaves are brewed in tea, chewed, or stuffed in the cheeks like chewing tobacco. The active ingredients, cathinone and cathine, are controlled substances in the United States. In two separate cases this fall, police in Fargo, North Dakota, seized more than 500 pounds of khat that had been shipped from Great Britain and destined for distribution in the Minneapolis area.

Methylphenidate (Ritalin), a prescription drug used in the treatment of attention deficit hyperactive disorder, is also used as a drug of abuse by crushing and snorting the pills, which sell for \$5 each.

### Hallucinogens

Lysergic acid diethylamide (LSD, “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. Hospital ED episodes of LSD declined significantly, falling from 58 in 2000 to 13 in 2002, perhaps in large part because of the growing availability and popularity of MDMA, which also produces hallucinogenic effects.

Ketamine, also known as “Special K,” “Vitamin K,” or “cat-killer,” is a veterinary anesthetic that first appeared as a drug of abuse among young people in Minnesota in 1997. There were three ED mentions of ketamine in 2001 and none in 2002. It is snorted, injected, or put into capsules or pills. People under the influence of ketamine are said to be in the “K-hole,” a stunned state of profoundly suspended animation.

Several law enforcement agencies reported incidents involving alpha-methyltryptamine (AMT), also known as “Amtrack” or “Amthrax,” a white granular powder purchased over the Internet. AMT produces hallucinations and extremely agitated, aggressive behavior. Tryptamines are naturally occurring compounds with structures and properties similar to LSD. AMT is sold as powder or in capsules for \$15 each. It can also be smoked or mixed with water and ingested. Some clear capsules filled with white powder that lab analysis identified as N,N-Diisopropyl-5-methoxytryptamine, known as “5-MeO-DIPT” and “Foxy Methoxy,” were also seized by law enforcement. Effects include pronounced hallucinations and, at high doses, nausea, jaw clenching, and muscle tension.

Phencyclidine (PCP), a dissociative anesthetic, is most often used in combination with marijuana. Two young African-American males (ages 18 and 19) died in 2003 in Hennepin County with recent PCP use reported as a significant contributing condition. ED mentions of PCP

totaled 24 in 2001 and 85 in 2002. Marijuana joints are sometimes dipped in formaldehyde or embalming fluid that is often mixed with PCP, and are known as “wets,” “amp,” “wet sticks,” or “wet daddies.” They are easily distinguished by their pungent, unpleasant, chemical odor. PCP can also be injected or snorted.

Psilocybin mushrooms are generally available and sell for up to \$200 per dried ounce.

### Sedative/Hypnotics

Gamma hydroxybutyrate (GHB) is also known as “G,” “Gamma,” “Liquid E,” or “Liquid X.” This highly concentrated liquid is abused for its stupor-like, depressant effects and as a predatory drug-induced rape drug. It sells for \$10 by the capful. GHB hospital emergencies declined significantly from a high of 93 in 2000 to 34 in 2003.

Gamma butyrolactone (GBL), known as furanone di-hydro, and 1,4-butanediol, known as “BD” or “1,4-BD,” are chemical cousins of GHB and, once ingested, convert into GHB. Samples of each appeared in the Minneapolis crime lab in 2003 as a clear liquid and an orange-colored liquid. Despite recent State and Federal laws and regulatory actions targeting GHB, GBL, and 1,4-BD, it still may be possible to purchase products containing these chemicals over the Internet, where they are sold as dietary supplements, muscle-stimulating growth hormones, aphrodisiacs, or household cleaning solvents.

Flunitrazepam (Rohypnol), a long-acting pharmaceutical benzodiazepine known as “roofies” or “Roach pills,” produces amnesia and is also used in drug-assisted rapes and assaults. There were no ED mentions of flunitrazepam in Minneapolis in 2002.

### Other Drugs

School-based counselors and emergency medicine staff reported the continuing abuse of dextromethorphan (DXM), a substance found in over-the-counter cough medications and sold as a powder or in clear capsules for \$5. Calls related to the intentional abuse of DXM grew from 73 in 2001 to 111 in 2003 (through November 12), according to the Hennepin Regional Poison Center. Sixty percent were specifically in regard to Coricidin HBP Cough and Cold, also known as “Triple Cs,” and 7 percent were for Robitussin DM.

Drug counselors noted a practice known as “smoking lithium,” taken from batteries. There are also reports



of “doing light bulbs,” which involves inhaling the white powder that coats the inside of common incandescent light bulbs.

Alcohol remained the most prevalent drug of abuse in the area and accounted for more than one-half of admissions to addiction treatment programs.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Most AIDS cases in Minnesota were in the Minneapolis/St. Paul area. Of the 1,862 people living with AIDS in Minnesota in 2002, the exposure categories were as follows: men who have sex with

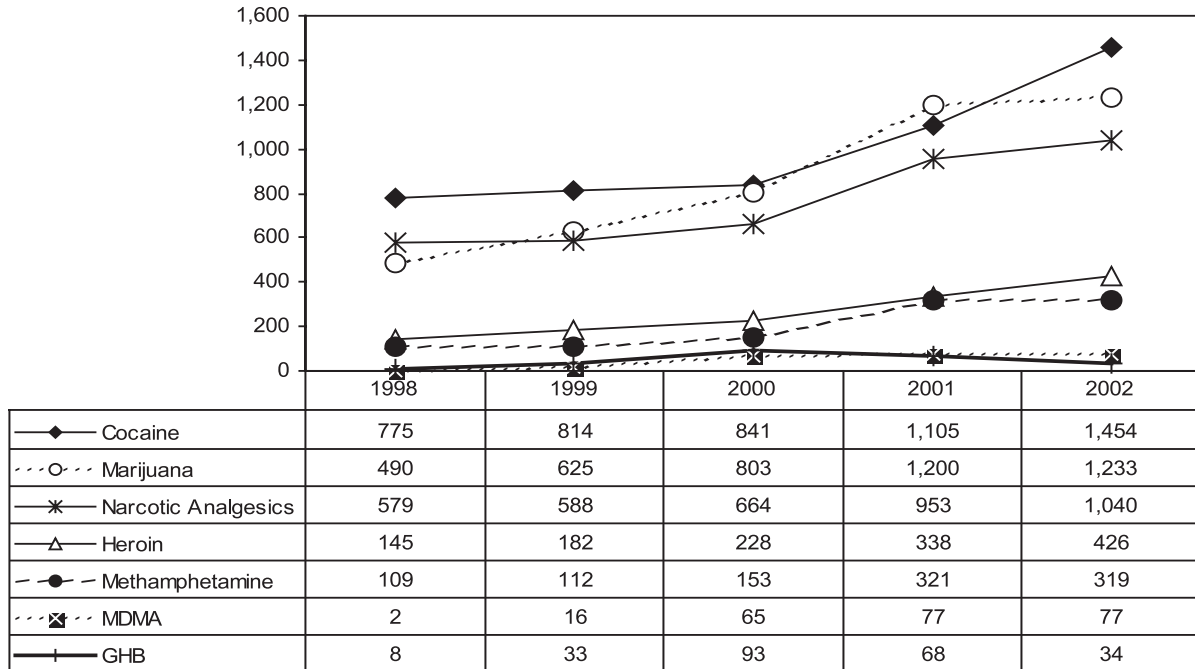
men (55 percent), injection drug use (8 percent), men who have sex with men and injection drug use (5 percent), heterosexual contact (12 percent), other (2 percent), undetermined (7 percent), and no interview (10 percent).

Many addicts with a history of injection drug use contract the hepatitis C virus (HCV), a blood-borne liver disease with symptoms that may not appear for as long as 20 years after initial exposure. The prevalence of HCV among injection drug users remained quite high, with estimates as high as 80–90 percent among methadone patients.

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**Exhibit 1. Hospital ED Mentions of Selected Drugs in Minneapolis/St. Paul: 1998–2002**



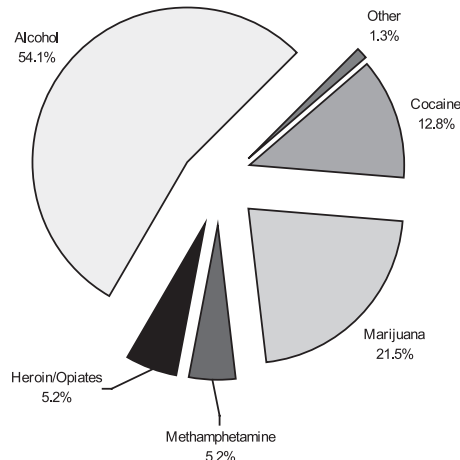
SOURCE: DAWN, OAS, SAMHSA

**Exhibit 2a. Characteristics of Persons Admitted to Addiction Treatment Programs in Minneapolis/St. Paul, by Primary Substance of Abuse and Percent: January–June 2003**

Total Admissions	Alcohol	Marijuana	Cocaine	Methamphetamine	Heroin
(N=9,405)	(4,811) 51.2	(2,125) 22.6	(1,200) 12.8	(620) 6.6	(297) 3.2
Gender					
Male	71.4	76.9	65.6	62.3	70.4
Female	28.6	23.1	34.4	37.7	29.6
Race/Ethnicity					
White	78.9	68.5	40.4	93.6	50.5
African-American	12.2	20.1	50.8	0.7	43.7
Hispanic	4.1	4.9	5.1	3.3	2.9
American Indian	3.4	3.3	1.5	0.7	1.4
Asian	0.5	1.0	1.0	0.9	0.4
Age					
Younger than 18	3.2	50.1	1.4	15.8	0.3
18–25	13.7	28.8	9.9	38.7	18.5
26–34	19.1	12.1	25.4	22.9	27.6
35 and older	63.9	8.9	63.2	22.6	51.6
Route of Administration					
Smoking			82.5	50.5	2.8
Sniffing			15.5	30.3	45.7
Injection			1.9	15.6	51.6
Other (oral)				3.5	
Secondary Drugs	Marijuana 53.4 Cocaine 31.3 Metham. 5.0	Alcohol 73.3 Cocaine 10.5 Metham. 9.7	Alcohol 55.4 Marijuana 27.5 Metham. 3.4	Marijuana 51.9 Alcohol 30.0 Cocaine 11.1	Cocaine 40.8 Alcohol 26.9 Marijuana 14.9
Most Frequently Mentioned Tertiary Drug	Cocaine 36.4	Alcohol 28.8	Alcohol 41.0	Alcohol 46.0	Alcohol 34.7
First Treatment Episode	29.4	44.6	19.1	34.2	11.4
Daily Nicotine Use	60.0	62.0	64.3	74.6	72.4

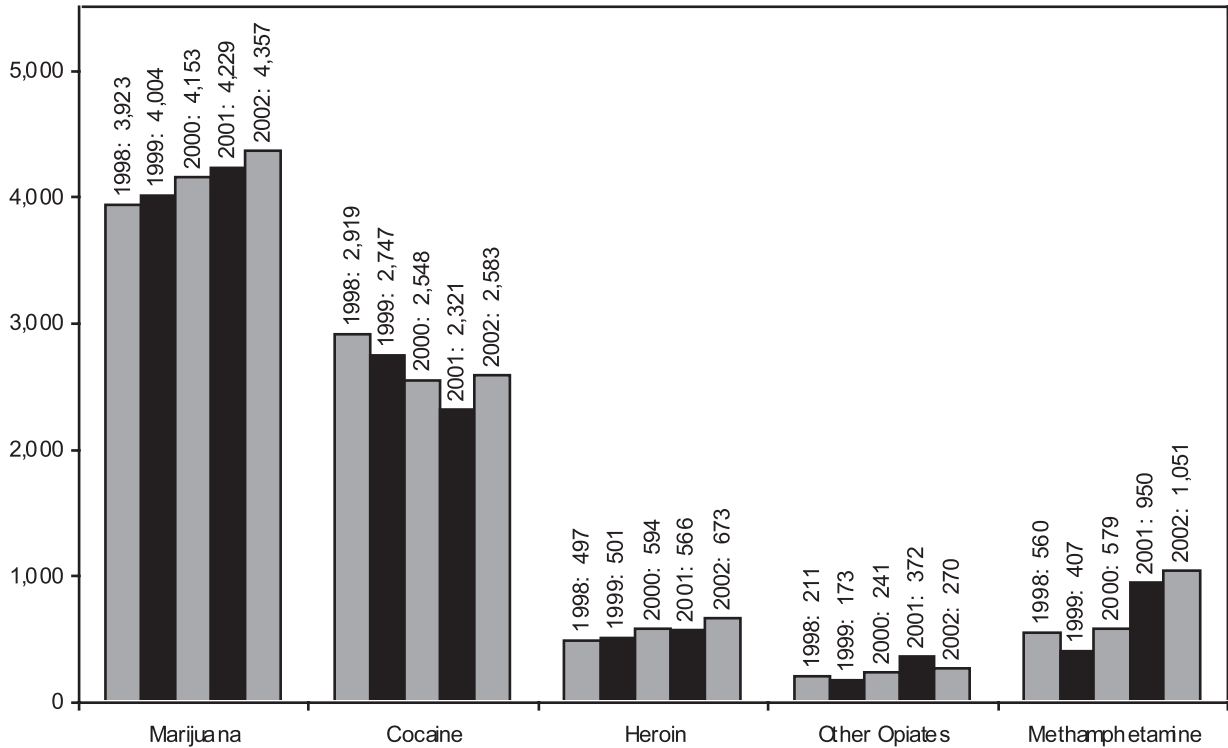
SOURCE: Drug and Alcohol Abuse Normative Evaluation System (DAANES), Minnesota Department of Human Services, 2003

**Exhibit 2b. Admissions to Addiction Treatment Programs in Minneapolis/St. Paul by Primary Substance Problem and Percent: 2002**



SOURCE: Drug and Alcohol Normative Evaluation System (DAANES), Minnesota Department of Human Services, 2003

**Exhibit 2c. Admissions to Addiction Treatment Programs in Minneapolis/St. Paul by Primary Substance Problem and Percent: 1998–2002**



SOURCE: Drug and Alcohol Normative Evaluation System (DAANES), Minnesota Department of Human Services, 2003

**Exhibit 3. Children Involved in Methamphetamine Laboratories in Minnesota: 1998–2002**

Involvement	1998	1999	2000	2001	2002
Affected	0	0	1	9	57
Exposed	1	6	5	6	30
Present	4	15	15	11	25
Child Protective Custody	2	7	4	6	23
Resided	0	0	1	5	47
Injured	0	0	0	1	0
Killed	0	0	0	0	2
Minimum Number of Children Involved	4	15	15	11	57

SOURCE: El Paso Intelligence Center (EPIC), U.S. Drug Enforcement Administration

**Exhibit 4. Clandestine Methamphetamine Laboratory Seizures in Minnesota: 1998–2002**

<b>Seizure Data</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Assembled lab	35	101	106	103	165
Chemicals, glass, equipment	0	1	13	35	57
Toxic dump site	0	0	5	14	17
<b>Total Clandestine Seizures</b>	<b>35</b>	<b>102</b>	<b>124</b>	<b>152</b>	<b>239</b>

SOURCE: El Paso Intelligence Center (EPIC), U.S. Drug Enforcement Administration, 2003

# Drug Abuse in the Newark Primary Metropolitan Statistical Area

Anna Kline, Ph.D.<sup>1</sup>

## ABSTRACT

*Heroin indicators remained high in Newark City, the Newark PMSA, and the State. Excluding alcohol admissions in the first half of 2003, primary heroin admissions accounted for 85 percent of the admissions in the city and nearly three-quarters of those in the PMSA. Heroin accounted for nearly 27 percent of all ED mentions in 2002, with a rate of 214 per 100,000 population. Heroin purity remains high, at 71.4 percent in 2002. Heroin injection among treatment admissions aged 18–25 has continued to increase, reaching 50 percent in Newark and 56 percent statewide during the first half of 2002. The cocaine/crack ED rate remained stable at 186 per 100,000 population, while the rates of ED mentions of narcotic analgesics/combinations, marijuana, amphetamines, benzodiazepines, barbiturates, and PCP increased significantly. Between October 2002 and June 2003, cocaine accounted for 49.7 percent of items analyzed by NFLIS, followed by heroin (24.6 percent) and marijuana (9.7 percent).*

## INTRODUCTION

### Area Description

The Newark primary metropolitan statistical area (PMSA) consists of five counties (Essex, Morris, Sussex, Union, Warren). In 2000, there were 2,032,989 residents in the PMSA, with 39 percent living in Essex County (which contains Newark City), 26 percent in Union County, 23 percent in Morris County, and the rest residing in the remaining counties. The population of the Newark PMSA is diverse in its race distribution: 66 percent are White, 23 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 race/ethnic distribution within 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 is 87 percent White and 3 percent Black; Sussex is 96 percent White and 1 percent Black; and Warren is 95 percent White and 2 percent Black. Hispanics accounted for 15 percent of the population in Essex, 7 percent in Morris, 3 percent in Sussex, 19 percent in Union, and 4 percent in

Warren Counties. The counties are also very diverse by socioeconomic status. In the Newark PMSA as a whole, 5.8 percent of families with children under 18 live below the poverty level. For counties within the PMSA, the poverty status for families with children under 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.

Illicit drugs continue to flow through the State. On October 27, 2003, officials from the Hudson County Prosecutor's Office and the Jersey City Police Department announced the arrests of 19 members/associates of a street gang operating under the name "Sex Money Murder-52." The gang, which sold crack cocaine, powder cocaine, heroin, marijuana, and other drugs in Jersey City, is part of the Bloods street gang that is most active on the East Coast, especially in the Northeast and Mid-Atlantic regions (NDIC, November 18, 2003).

In addition, on September 30, the U.S. Attorney's Office for the District of New Jersey announced indictment of a young man in Atlantic City on charges of possession with intent to distribute 100 grams of 5-MeO-DIPT, commonly known as "foxy" or "foxy methoxy." The arrestee claimed he had obtained the drug over the Internet for \$4,000 and intended to sell it for \$8,000, claiming it was not a controlled substance and that he had sold it in the past. The Drug Enforcement Administration temporarily designated 5-MeO-DIPT a Schedule I drug so that Federal prosecutors can now charge individuals with distributing it as a controlled drug (NDIC, November 11, 2003).

### Data Sources

This report uses data from various sources, as indicated below:

- **Drug treatment data** were obtained from the Alcohol and Drug Abuse Data System (ADADS), a statewide, episode-based data system operated by the Division of Addiction Services of the Department of Human Services. The data for 2002 and the first half of 2003 include profiles by

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primary drug of abuse in Newark City and Newark PMSA programs. In addition, the Treatment Episode Data Set (TEDS), Office of Applied Studies (OAS), was used to depict admissions data statewide. Also, data from ADADS dating from 1992 to the first half of 2001 are used to study historical trends in heroin injection in the Newark PMSA and the State.

- **Emergency department (ED) drug mentions data** were obtained from the Drug Abuse Warning Network (DAWN), OAS, Substance Abuse and Mental Health Services Administration (SAMHSA), for 2002. The DAWN system collected data on ED cases in the Newark PMSA (i.e., in Essex, Morris, Sussex, Union, and Warren Counties).
- **Forensic analysis data** on specific drugs were provided by the Drug Enforcement Administration's National Forensic Laboratory Information System (NFLIS) for October 2002 through June 2003.
- **Mortality data** were obtained from the SAMHSA January 2002 report entitled "Mortality Data From the Drug Abuse Warning Network 2001." The DAWN system compiled data for counties in the Newark PMSA. Additional mortality data were obtained from the State Medical Examiner (ME) office. The DAWN system covered 60 percent of the five metropolitan statistical area (MSA) jurisdictions and 88 percent of the MSA population in 2001.
- **Heroin purity and price data** were obtained from the Intelligence Division, Office of Domestic Intelligence, Domestic Strategic Unit, Drug Enforcement Administration (DEA). The Intelligence Division of DEA collects data every quarter for the Domestic Monitor Program (DMP) from 23 U.S. metropolitan areas on the purity, retail price, and origin of heroin by purchasing it through undercover operations.
- **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 on the Newark PMSA, compiled as of June 30, 2002, are used in this report, while State data are cumulative as of December 2002.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

In the first half of 2003, primary cocaine/crack admissions accounted for 6.1 percent of all admissions in Newark City (the same proportion as in 2002) and for 6.7 percent of admissions for illicit drugs (i.e., excluding alcohol, the same proportion as in 2002) (exhibits 1 and 2). Three-quarters of the cocaine admissions in the first half of 2003 were for abuse of crack cocaine.

In the Newark PMSA, crack/cocaine admissions (excluding alcohol) were somewhat higher than in the city—10.1 percent in the first half of 2003, up slightly from 9.4 percent in 2002. The proportions of cocaine/crack admissions among all admissions were higher in the PMSA as well: 7.6 percent in 2002 and 8.1 percent in the first half of 2003. In the first half of 2003, crack accounted for 65.6 percent of the cocaine admissions in the PMSA, the same proportion as in 2002.

The 2002 TEDS data (excluding alcohol) show that the proportion of cocaine/crack admissions statewide was double that reported in the Newark City ADADS data and 4 percentage points higher than in the PMSA in 2002 (exhibit 2). Admissions for crack abuse accounted for two-thirds of the primary cocaine admissions statewide. Data for the first half of 2002 show crack admissions in the PMSA were more likely than those statewide in 2002 to be Black (69 vs. 55 percent) and female (51 vs. 41 percent). In both the PMSA and the State overall, admissions for primary abuse of powder cocaine were more likely to be White (57 vs. 64 percent) and male (65 vs. 70 percent).

In 2002, cocaine ranked second to heroin in the rate of ED mentions per 100,000 population in the Newark PMSA (exhibit 3). While the rate of cocaine ED mentions increased from 152 in 2001 to 186 in 2002, the change was not statistically significant (exhibit 4). Nearly 82 percent of the cocaine episodes represented multidrug episodes. Nearly 64 percent of the 3,242 cocaine ED mentions were for patients who were Black, and 62 percent represented patients older than 32. Dependence was the most frequently mentioned motive for using cocaine, accounting for 76 percent of the mentions. Chronic effects was the most frequently cited reason for visiting the ED (48 percent), followed by seeking detoxification (20 percent) and overdose (16 percent).

Between October 2002 and June 2003, cocaine/crack accounted for 49.7 percent of the 3,760 items ana-

lyzed by NFLIS, the highest proportion for any drug (exhibit 5).

Cocaine-related deaths increased from 137 in 2000 to 148 in 2001. The increase in cocaine-related deaths in the Newark PMSA was consistent with the marginal increase in cocaine treatment mentions and ED cocaine mentions.

Cocaine prices have been remarkably stable over the years, with the drug selling for \$5–\$30 per bag in the Newark PMSA in the first quarter of 2001. No 2002 price data are available to report at this time.

### Heroin

Heroin accounted for 74.7 percent of all treatment admissions in the first half of 2003 in the Newark PMSA, remaining stable from 2002. As a proportion of illicit drug admissions, heroin accounted for 85.1 percent in Newark City in the first half of 2003, also stable from 2002 (exhibits 1 and 2). In the Newark PMSA, primary heroin admissions accounted for nearly three-quarters of illicit drug admissions in the first half of 2003, slightly less than in 2002, and for 60.1 percent of all treatment admissions (including alcohol).

The TEDS data for 2002 show that primary heroin admissions predominated across the State, accounting for two-thirds of all admissions for drugs other than alcohol (exhibit 2). Statewide, nearly 55 percent of primary heroin admissions were White (including Hispanic), and 65 percent were male. While heroin admissions in the Newark PMSA did not differ from those statewide by gender, a smaller proportion were White or Hispanic (41 percent), with 57 percent being Black in the first half of 2002.

Trend data on treatment admissions who were heroin injectors show increasing proportions of young injectors in the Newark PMSA and statewide (exhibits 6 and 7). In the PMSA, the proportion of heroin injectors age 18–25 increased dramatically from 17.0 percent in 1992 to 50.4 percent in the first half of 2002. Exhibit 7 shows a similar increase statewide—from 28.7 percent in 1992 to 56.0 percent in the first half of 2002. Since 1993, injection among clients age 26–34 has also risen moderately. Heroin smoking remains very rare in the Newark PMSA, with just under 1 percent of primary heroin treatment admissions reporting this route of administration in the first half of 2002.

The rate of ED mentions for heroin in 2002 continued to be higher than rates for other drugs, at 214 per

100,000 population (exhibit 3). This rate was significantly unchanged from 2001 (exhibit 4). Of the 3,731 heroin ED mentions in 2002, 59 percent were for male patients, 62 percent were for patients who were Black, and 65 percent were for patients age 35 and older. Sixty-one percent of the episodes were multidrug episodes. Ninety percent of the drug use motives were attributed to dependence. Chronic effects was the most frequently cited reason for contacting the ED (42 percent), followed by seeking detoxification (21 percent), and overdose (17 percent).

Trend data (1999–2002) show that Black patients continue to predominate in heroin ED mentions, although there were no significant changes from 2000 to 2002 or 2001 to 2002, when the number totaled 2,310 (exhibit 8). Although not statistically significant, the number of heroin mentions for White patients increased, while those for Hispanic patients decreased. (Nearly 8 percent of the mentions in 2002 were among patients of unknown race/ethnicity.)

Although heroin is the leading drug among treatment admissions and ED mentions in Newark, it accounted for only 25 percent of the 3,760 items analyzed by NFLIS between October 2002 and June 2003 (exhibit 5).

In 2001, ME data show 177 heroin mentions in the Newark PMSA, about the same number as in 2000 (179 heroin mentions). The stable pattern in ME heroin mentions is consistent with the recent patterns in both treatment data and ED data.

Heroin purity is still very high but fluctuating in the Newark PMSA. In 2000, heroin purity was estimated at 72.2 percent per pure milligram. In 2001, heroin was 68.5 percent pure and in 2002, 71.4 percent pure. The price per milligram of heroin in 2002 was \$0.39, up slightly from \$0.33 in 2000 and \$0.34 in 2001. In 2002, the Newark PMSA had the highest heroin purity coupled with the third lowest price (after New York and Baltimore) among the 21 DAWN cities. According to the DEA report, almost all the heroin sold in the Newark PMSA is South American.

### Opiates Other Than Heroin

In the first half of 2003, primary admissions for “other opiates or synthetics” totaled only six (0.2 percent of admissions, excluding alcohol admissions). The number was higher in the PMSA—82 (1.2 percent of the admissions, excluding alcohol).

In 2002, figures for the city and PMSA, respectively, were 0.3 and 1.5 percent, somewhat lower than in the



State (TEDS) overall, with other opiates accounting for 2.8 percent of illicit drug admissions. In the State data, 90.5 percent of the primary “other opiate” admissions were White/Hispanic, and 61 percent were male.

ED data show a statistically significant increase in the rate of narcotic analgesics/combinations mentions, rising from 31 per 100,000 population in 2000, to 43 in 2001, to 64 in 2002 (exhibit 4). As shown in exhibit 9, the number of narcotic analgesic/combinations mentions has risen linearly since 1997, with those for methadone (also in this category) accounting for a substantial proportion of the mentions each year. Of the 1,115 narcotic analgesic/combinations mentions in 2002, methadone accounted for 346 or 31 percent of the mentions, with no significant increases from 2000 onward.

In 2001, there were 18 oxycodone mentions among Newark PMSA ME cases, up from 4 in 2000. Statewide, there were 58 oxycodone ME mentions and 11 hydrocodone ME mentions in 2001.

### **Marijuana**

Primary marijuana admissions represented 6.0 percent of all treatment admissions in Newark City in the first half of 2003, compared with 7.9 percent in the Newark PMSA. As a proportion of illicit drug treatment admissions, marijuana accounted for 6.6 percent in Newark City and 9.9 percent in the Newark PMSA (exhibit 1) in the first half of 2003, both only marginally higher than in 2002 (exhibit 2).

The 2002 TEDS treatment data show that statewide primary marijuana admissions (excluding alcohol) were more than twice the proportion in Newark City (14.8 vs. 6.3 percent) and about 5 percentage points higher than those in the Newark PMSA (exhibit 2). Statewide, the primary marijuana admissions were predominantly male (82.5 percent), with 51.9 percent being White and 38.7 percent being Black. In the Newark PMSA in the first half of 2002, primary marijuana admissions were also primarily male (78.9 percent), but a larger proportion were Black (57.0 percent) than White or Hispanic (46.1 percent). Across the State, as well as in the PMSA, approximately three-quarters of the primary marijuana admissions were younger than 26.

The rate of marijuana ED mentions has risen significantly since 2000, up from 29 per 100,000 population in 2000, to 37 in 2001, to 54 in 2002 (exhibit 4). In 2002, nearly 79 percent represented multidrug episodes, and nearly one-half were younger than 26.

Among the 3,760 items analyzed by NFLIS between October 2002 and June 2003, marijuana accounted for 363 (9.7 percent) (exhibit 5).

Marijuana seizures in New Jersey increased from 1,813 in 1998 to 3,299 in 1999. There were no recent seizure data available for the Newark PMSA.

Prices of marijuana were stable in the Newark PMSA. According to the DEA, marijuana sold for \$5–\$10 per bag and \$2–\$5 per joint in the first quarter of 2001. No recent price data were available for the Newark PMSA to report.

### **Methamphetamine and Amphetamines**

In 2002, only 11 primary methamphetamine treatment admissions were reported in the Newark PMSA. Methamphetamine use as a primary, secondary, or tertiary drug was reported only 28 times in the Newark PMSA in the first half of 2002. As a primary drug of abuse, amphetamine abuse was also rare in the State in 2002, with 136 such admissions (0.35 percent of all admissions for drugs other than alcohol).

In the DAWN system, there was only one methamphetamine ED mention in 2002. ED mentions for amphetamines, however, rose significantly from 2000 onward, totaling 155 in 2002. The rate of ED amphetamine mentions per 100,000 population also rose significantly from 3 in 2000, to 6 in 2001, to 9 in 2002 (exhibit 4).

### **Benzodiazepines and Barbiturates**

In 2002, the rate of benzodiazepine ED mentions rose significantly to 57 per 100,000 population (exhibit 4), accounting for 7.1 percent of all mentions. The rate of ED mentions of barbiturates also rose significantly, from 3 per 100,000 population in 2000, to 5 in 2001, to 7 in 2002. The increases in ED mentions of these two drugs since 1997 are graphically depicted in exhibit 10.

Treatment data for the Newark PMSA in the first half of 2002 also showed increases in use of benzodiazepines among treatment admissions, with their use as a primary, secondary, or tertiary drug accounting for 2.3 percent of treatment admissions, compared with 1.6 percent in 2001.

The 2001 DAWN mortality data show that benzodiazepine mentions accounted for only 0.4 percent in the Newark PMSA.

## Other Drugs

### *Methylenedioxymethamphetamine (MDMA or Ecstasy)*

MDMA use continues to be low in Newark. In the first half of 2002, there were only 16 admissions reporting MDMA as a primary, secondary, or tertiary drug of abuse.

The rate of MDMA ED mentions per 100,000 population remained unchanged, at 3 in 2001 and 3 in 2002 (exhibit 4); 38 of the 47 MDMA mentions were multidrug episodes. Seventy-four percent of the MDMA ED mentions were for patients who reported using the drug for its psychic effects, although 15 percent reported dependence on the drug. Fifty-three percent visited the ED because of an overdose, and 23 percent mentioned chronic effects.

### *Phencyclidine (PCP)*

Among treatment admissions in the first half of 2002, only 19 clients reported using PCP as a primary, secondary, or tertiary drug of abuse.

There was, however, a significant increase in the rate of PCP ED mentions in 2002 (exhibit 4), with a rate of 7 per 100,000 population, up from 2 per 100,000 in 2001. Of the 124 PCP ED mentions, 73.4 percent were multidrug episodes. Seventy percent were for patients who were male, and 64 percent were for patients age 18–25. More than 58 percent cited psychic effects as a motive for using PCP. The most frequently cited reasons for visiting the ED were overdose (41 percent) and unexpected reaction (37 percent).

### *Alcohol*

In the Newark PMSA, alcohol-only treatment admissions as a proportion of all admissions increased from 10.4 percent to 12.4 percent between the first half of 2002 and the first half of 2003, while alcohol-in-combination admissions declined from 8.5 to 7.1 percent in the same time period.

Alcohol-in-combination with other drugs accounted for 14.4 percent of the 13,975 ED mentions in the Newark PMSA in 2002, with a rate of 115 per 100,000 population. The rate remained stable from 2000 to 2002.

## INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The drug-abusing population in the Newark PMSA (and the State) and those living with HIV/AIDS exhibit similar characteristics. There were 11,592 people living with HIV/AIDS in the Newark PMSA as of June 30, 2002. Of these, 11,274 were adults/adolescents and 4,619 (39.8 percent) were females; 36.8 percent of the adult/adolescent cases were injection drug users (IDUs) (exhibit 11). Only 1 percent were younger than 20, and 23 percent were older than 49. Over 70 percent (70.1 percent) of people with HIV/AIDS were age 30–49.

The population living with HIV/AIDS in the Newark PMSA was overwhelmingly Black (72 percent), followed by Hispanics (14 percent) and Whites (12 percent).

Statewide, the number of people living with HIV/AIDS as of December 31, 2002, was 30,073, of which 29,386 were adults; 35.9 percent were females. IDUs, including those who engage in male-to-male sex, accounted for 37 percent of statewide adult cases (exhibit 12).

Only 2.3 percent of statewide cases were younger than 20. The race/ethnicity distribution of people living with HIV/AIDS statewide is also skewed towards Blacks, who accounted for 55.8 percent of all cases, and Hispanics, who accounted for 20.6 percent.

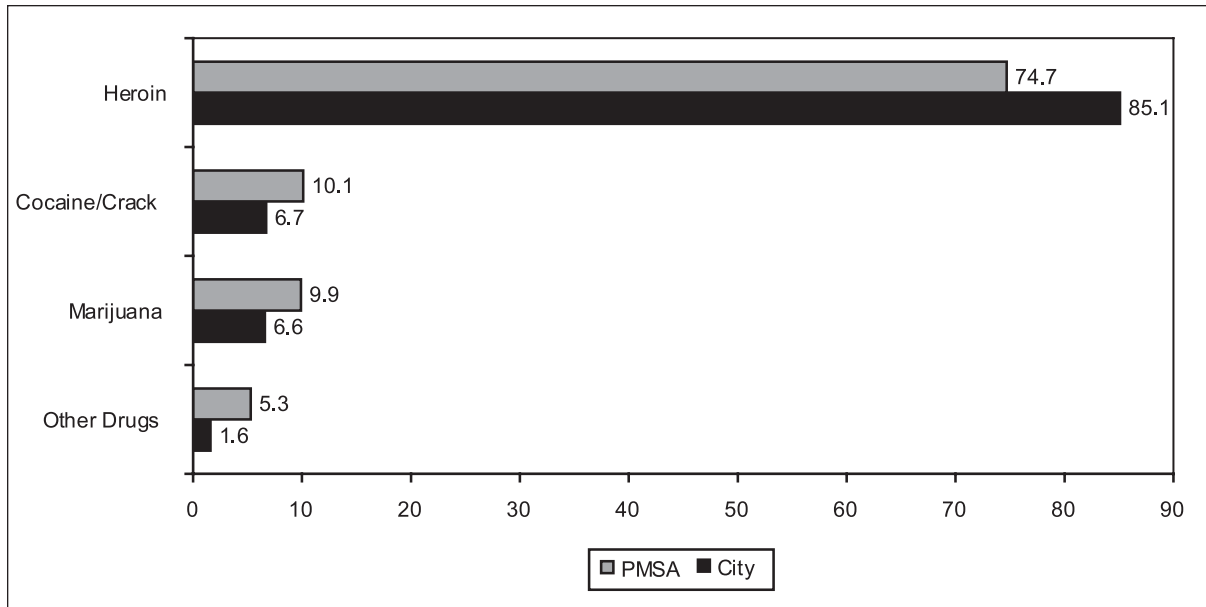
A larger proportion of females (35.7 percent in Newark PMSA and 36.6 in the State) were infected through heterosexual contact than males (11.7 percent and 10.3 percent in the Newark PMSA and the State, respectively).

The continued increase in heroin injection by the young (aged 18–25) and the very high levels of heroin abuse and heroin-related deaths suggest a possible increase in the prevalence of infectious diseases. However, no data are yet available to document any rise in the prevalence of infectious diseases.

## REFERENCES

- National Drug Intelligence Center. *Narcotics Digest Weekly* 2 (46) November 18, 2003.
- National Drug Intelligence Center. *Narcotics Digest Weekly* 2 (45) November 11, 2003.

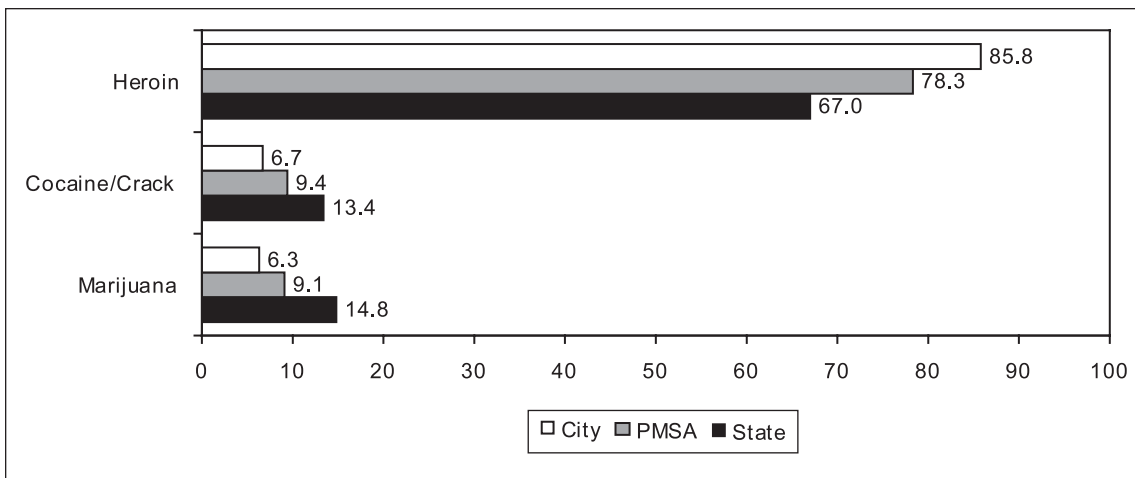
**Exhibit 1. Percentages of Primary Treatment Admissions (Excluding Alcohol) for Selected Drugs<sup>1</sup> in Newark City and the Newark PMSA: First Half of 2003**



<sup>1</sup>Three-quarters of the primary cocaine admissions in Newark City and nearly two-thirds of those in the PMSA were for primary crack abuse.

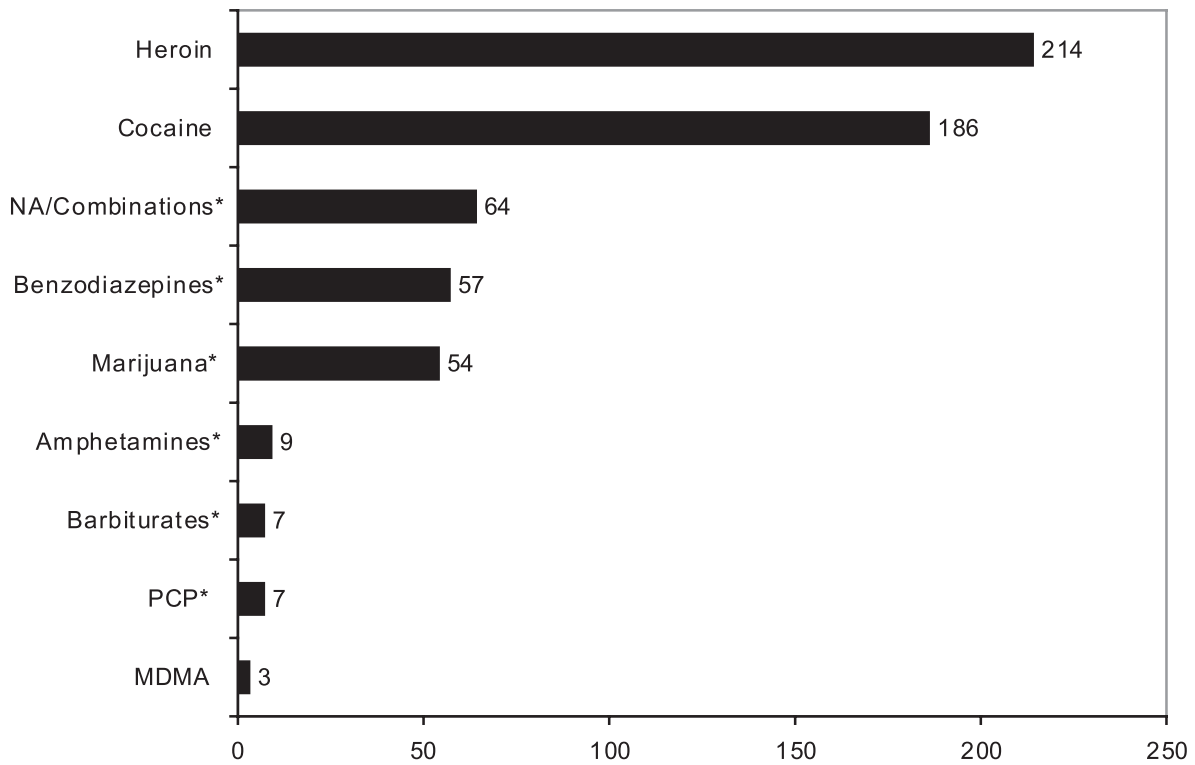
SOURCE: ADADS, State Department of Health and Senior Services

**Exhibit 2. Percentages of Primary Treatment Admissions (Excluding Alcohol) for Selected Drugs in Newark City, Newark PMSA, and the State of New Jersey: 2002**



SOURCES: ADADS and TEDS

**Exhibit 3. Rates of ED Mentions per 100,000 Population for Selected Drugs in the Newark PMSA: 2002**



\*Significant increases occurred from 2000 to 2002 and from 2001 to 2002.  
 SOURCE: DAWN, OAS, SAMHSA

**Exhibit 4. Rates of ED Mentions per 100,000 Population in Newark, by Selected Drug and Percent Change: 2000–2002**

Drug	2000	2001	2002	Percent Change <sup>1</sup>	
				2000, 2002	2001, 2002
Cocaine	147	152	186		
Heroin	238	215	214		
Narcotic Analgesics/ Combinations	31	43	64	102.9	49.3
Marijuana	29	37	54	85.5	44.4
Amphetamines	3	6	9	169.1	48.9
Benzodiazepines	38	49	57	49.3	15.5
Barbiturates	3	5	7	139.2	45.4
MDMA	1	3	3		
PCP	2	2	7	236.7	250.6

<sup>1</sup>These columns denote statistically significant (p<0.05) increases and decreases between the time periods shown.  
 SOURCE: DAWN, OAS, SAMHSA

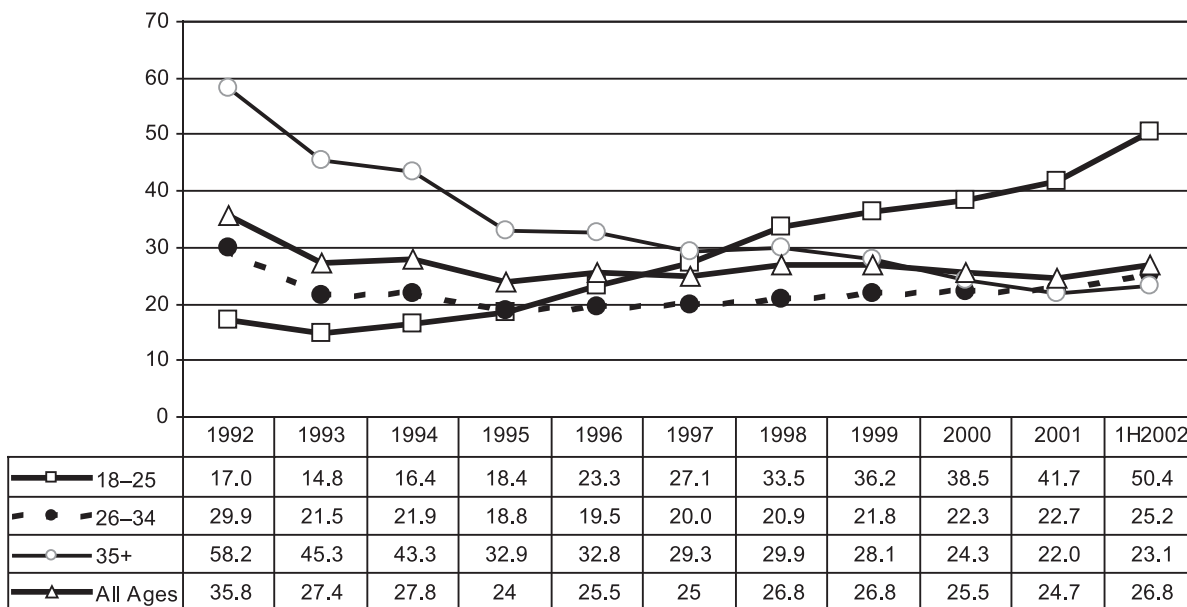
**Exhibit 5. Number of Items Analyzed for Specific Drugs in Newark and Percentage of Total Items: October 2002—June 2003<sup>1</sup>**

Drug	Number	Percent
Cocaine	1,867	49.7
Heroin	923	24.6
Marijuana	363	9.7

<sup>1</sup>N=3,760

SOURCE: NFLIS, DEA

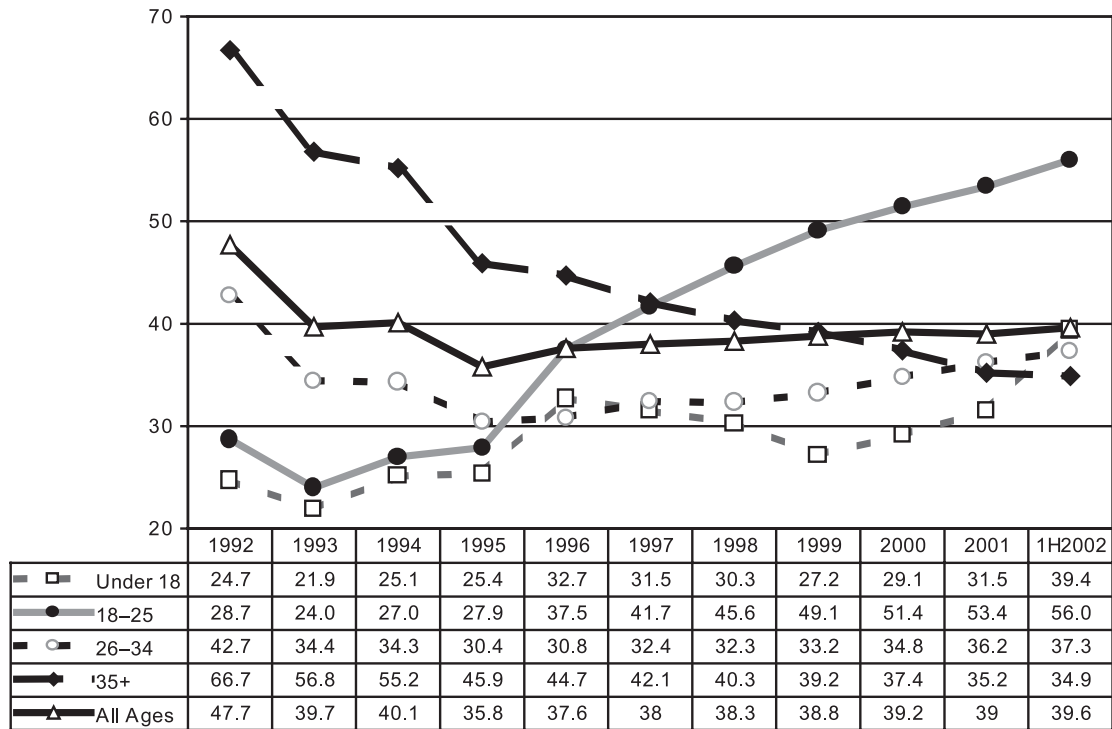
**Exhibit 6. Heroin Injection Among Treatment Admissions by Age Group in the Newark PMSA, by Percent: 1992–June 2002<sup>1</sup>**



<sup>1</sup>2002 data reflect partial-year reporting only.

SOURCE: ADADS

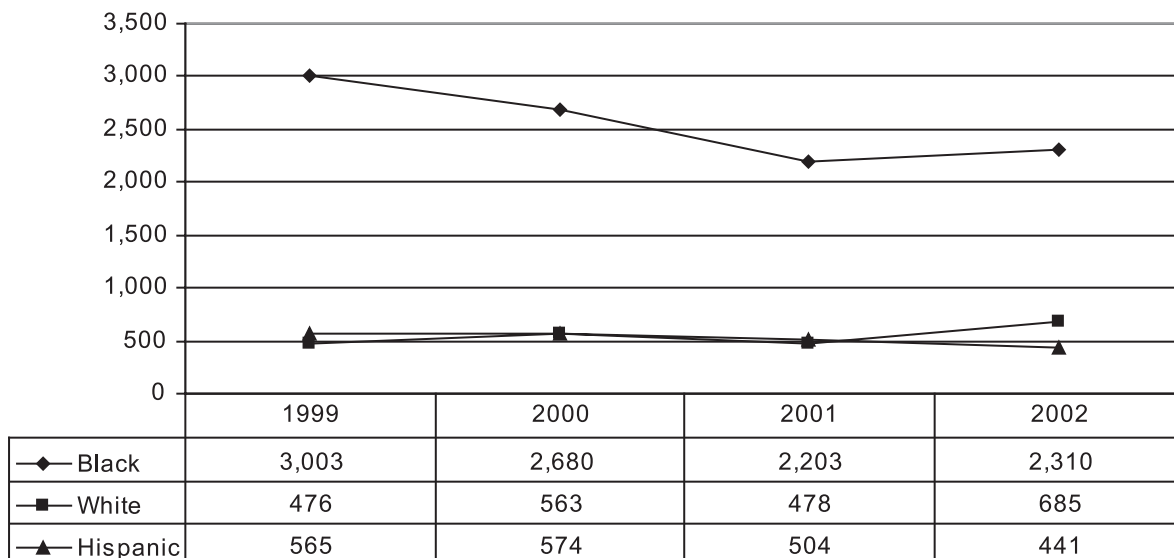
**Exhibit 7. Percentages of Heroin Injectors Among Treatment Admissions by Age Group in New Jersey 1992–June 2002<sup>1</sup>**



<sup>1</sup>2002 data reflect partial-year reporting only.

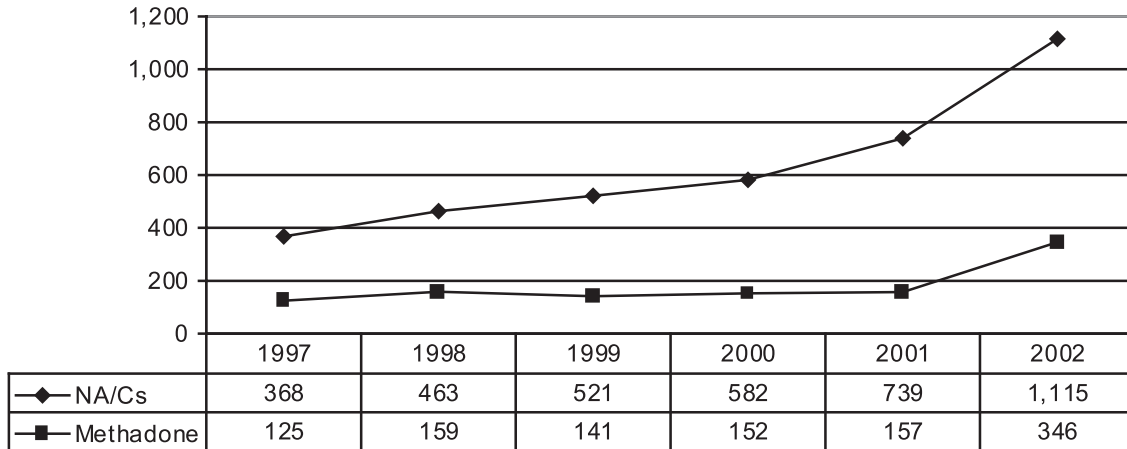
SOURCE: ADADS

**Exhibit 8. Race/Ethnicity of Heroin ED Mentions in Newark: 1999–2002**



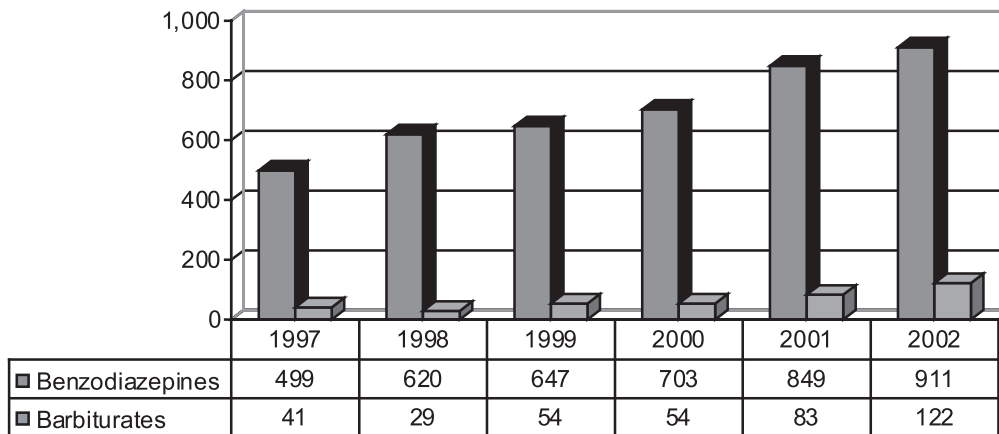
SOURCE: DAWN, OAS, SAMHSA

**Exhibit 9. Number of Narcotic Analgesic/Combinations and Methadone ED Mentions, by Year: 1997–2002**



SOURCE: DAWN, OAS, SAMHSA

**Exhibit 10. Number of Benzodiazepine and Barbiturate ED Mentions, by Year: 1997–2002**



SOURCE: DAWN, OAS, SAMHSA

**Exhibit 11. Adult/Adolescent and Pediatric Cases Living With HIV/AIDS in the Newark PMSA by Exposure Category and Gender as of June 30, 2002**

Exposure Category	Males		Females		Total	
	N	(%)	N	(%)	N	(%)
Adult/Adolescent						
Men/sex/men (MSM)	1,438	(21)	0	(0)	1,438	(12)
Injection drug user (IDU)	2,387	(34)	1,473	(32)	3,860	(33)
IDU/MSM	286	(4)	0	(0)	286	(2)
Heterosexual contact	816	(12)	1,651	(36)	2,467	(21)
Adult Other/Unknown	1,902	(27)	1,321	(29)	3,223	(28)
Pediatric Modes	144	(2)	174	(4)	318	(3)
<b>Total</b>	<b>6,973</b>	<b>(100)</b>	<b>4,619</b>	<b>(100)</b>	<b>11,592</b>	<b>(100)</b>
Race/Ethnicity						
White	981	(14)	385	(9)	1,366	(12)
Black	4,746	(68)	3,669	(79)	8,232	(72)
Hispanic	1,134	(16)	494	(11)	1,628	(14)
Other/Unknown	98	(1)	52	(1)	150	(1)
<b>Total</b>	<b>6,882</b>	<b>(100)</b>	<b>4,494</b>	<b>(100)</b>	<b>11,376</b>	<b>(100)</b>

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

**Exhibit 12. Number and Percent of Adult/Adolescent and Pediatric Cases Living with HIV/AIDS in New Jersey by Exposure Category and Gender as of June 30, 2002**

Exposure Category	Males		Females		Total	
	N	(%)	N	(%)	N	(%)
Adult/Adolescent						
Men/sex/men (MSM)	5,227	(27)	0	(0)	5,227	(17)
Injection drug user (IDU)	6,514	(34)	3,525	(33)	10,039	(33)
IDU/MSM	827	(4)	0	(0)	827	(3)
Heterosexual contact	1,966	(10)	3,951	(37)	5,917	(20)
Adult Other/Unknown	4,421	(23)	2,955	(27)	7,376	(25)
Pediatric Modes	335	(2)	352	(3)	687	(2)
<b>Total</b>	<b>19,093</b>	<b>(100)</b>	<b>10,783</b>	<b>(100)</b>	<b>30,073</b>	<b>(100)</b>
Race/Ethnicity						
White	4,780	(25)	1,858	(17)	6,638	(22)
Black	9,912	(51)	6,877	(64)	16,789	(56)
Hispanic	4,283	(22)	1,900	(18)	6,183	(21)
Other/Unknown	315	(2)	148	(1)	463	(1)
<b>Total</b>	<b>19,290</b>	<b>(100)</b>	<b>10,783</b>	<b>(100)</b>	<b>30,073</b>	<b>(100)</b>

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control



# Overview of Drug Abuse Indicators in New Orleans

Gail Thornton-Collins<sup>1</sup>

## ABSTRACT

*Cocaine/crack remains the top drug among ED mentions and treatment admissions in New Orleans, but those indicators appear to have stabilized. While heroin abuse has increased in the area over the last several years, ED mentions and treatment admissions for the drug appear to have stabilized—similar to those for cocaine/crack. Marijuana remains a major problem in New Orleans, particularly among youth, and prices have decreased in some areas of the State because of the abundance of Mexican marijuana. Youth also continue to be lured to club drugs, such as MDMA and GHB. IDUs accounted for nearly one-quarter of the 5,092 AIDS cases reported in Louisiana during the first 5 months of 2003, with MSM/IDUs accounting for another 10 percent.*

## INTRODUCTION

### Area Description

Located in southern Louisiana, New Orleans covers 366 square miles, of which 164 are water. Jefferson Parish borders the city on the west. About one-half of the metropolitan area's 1.2 million inhabitants live in Orleans Parish, the largest of Louisiana's 64 parishes.

New Orleans is serviced by several deep-water ports located at the confluence of the Nation's two principal waterways: the Gulf Intracoastal Waterway and the Mississippi River. Barge lines and more than 100 steamship lines service the ports, with more than 4,000 ships calling annually.

New Orleans has two airports: the New Orleans International Airport, which serves all cargo airlines, and the New Orleans Lakefront Airport, which serves general aviation and corporate and private aircraft. Domestic and international trade are served directly by the Public Belt Railroad and trunk line railroads; other rail companies maintain offline offices in New Orleans.

### Data Sources

Information for this report was collected from the sources described below:

- **Emergency department (ED) drug mentions data** were derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Estimates are presented for 2002; rates per 100,000 population are based on the 2000 census.
- **Drug treatment data** were provided by the Louisiana State Office for Addictive Disorders and by not-for-profit treatment facilities for Orleans Parish for fiscal years (FYs) 1993–2003.
- **Drug-related mortality data** were derived from DAWN, OAS, SAMHSA. These medical examiner (ME) data cover two of the four jurisdictions and represent 88 percent of the metropolitan statistical area population in the participating jurisdictions. DAWN ME data are presented for 1997–2001.
- **Arrestee drug testing data** came from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for 2000, 2001, 2002, and the first two (male) and first three (female) quarters of 2003. The data for 2003 have been recalculated across quarters. Since male data are weighted, the recalculations of these data are estimates.
- **Drug arrest data** were provided by the New Orleans Police Department (NOPD) for 2000 through the first half of 2003.
- **Drug price, purity, and seizure information** was provided by the New Orleans Division of the Drug Enforcement Administration (DEA) for 2002. Purity data were derived from the DEA's Domestic Monitor Program (DMP).
- **Forensic laboratory data** were provided by the National Forensic Laboratory Information System (NFLIS), DEA, for the period of October 2002 through September 2003.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the Louisiana State Health

<sup>1</sup>The author is affiliated with the New Orleans Health Department, New Orleans, Louisiana.

Department and represent new and cumulative cases through May 1, 2003.

#### DRUG ABUSE PATTERNS AND TRENDS

##### **Cocaine/Crack**

Cocaine abuse, particularly of crack, continues to be a major drug problem in New Orleans. Cocaine powder continues to be converted into crack and distributed primarily in the lower income areas of the city. The DEA reports approximately 71.75 kilograms of cocaine were seized in the first quarter of FY 2003, compared with 13.05 kilograms in the fourth quarter of FY 2002. The majority of the cocaine trafficking within the New Orleans field district continues to originate from Colombia- and Mexico-based organizations, which operate out of California and Texas.

While rates of DAWN cocaine ED mentions per 100,000 population in New Orleans decreased significantly from 2000 through 2002, there was no significant change from 2001 to 2002, suggesting rates stabilized (exhibit 1). In 2002, ED mentions of cocaine totaled 1,674, with a rate of 145 per 100,000 population.

In 2002, the largest proportions of cocaine ED mentions were for patients who were male (61 percent), Black (60 percent), and age 35 and older (58 percent). However, the proportion of patients who were White increased significantly (49 percent) between 2001 and 2002, as their proportion rose from 29 to 37 percent.

Sixty-four percent of the cocaine ED mentions represented patients with multidrug episodes. Nearly 19 percent of the mentions were among patients who reported overdose as their reason for contacting the emergency department, while 30 percent were for patients who contacted the facility because of an unexpected reaction to the drug. Psychic effects and dependence were the most frequently reported motives for cocaine use (associated with 26 and 36 percent of the mentions, respectively).

Among treatment admissions in Orleans Parish in 2003, primary cocaine/crack abuse accounted for 34 percent of the 2,537 clients for whom a primary substance was reported (exhibit 2). Excluding alcohol, cocaine accounted for 43.2 percent of the admissions.

Of the 863 primary cocaine admissions in Orleans Parish in 2002, the majority were Black (83.5 percent). Of the 720 Black cocaine admissions, 65.4 percent were male and 34.6 percent were female. Gender

differences among the 135 White cocaine admissions were smaller (58.5 and 41.5 percent for males and females, respectively).

DAWN ME data show 90 cocaine death mentions in 2001, down from 111 in 2000 but up from the totals in 1997–1999 (exhibit 3). In 2001, 19 (21 percent) of the cocaine death mentions in DAWN were for cocaine only. Another nine mentions involved alcohol and cocaine, one involved cocaine plus heroin/morphine, and one involved alcohol, cocaine, and heroin/morphine.

New Orleans ADAM data indicate that 34.8 percent of males tested positive for cocaine in 2000. This proportion increased to 37.3 percent in 2001 and continued to rise to 49.0 percent in the first two quarters of 2003 (exhibit 4). Among female arrestees in the first three quarters of 2003, 37 percent tested positive for cocaine.

The NOPD reported 3,649 arrests for cocaine possession in 2002, up from 2,176 in 2001. In the first half of 2003, there were 1,513 arrests for cocaine possession (exhibit 5). In the first half of 2003, Black males accounted for the majority of these arrests (72 percent), followed by Black females (12 percent), White males (10 percent), and White females (4 percent) (exhibit 6). Cocaine distribution arrests also increased between 2001 and 2002, by 39 percent, and they totaled 662 in the first 6 months of 2003. Similar to arrests for cocaine possession in the first half of 2003, Black males accounted for the majority of cocaine distribution arrests at nearly 86 percent.

The price and purity of powder cocaine remained relatively stable, averaging \$80–\$150 per gram and \$800–\$1,200 per ounce. Kilogram prices, however, dropped from \$18,000–\$25,000 to \$20,000. The price of crack cocaine declined in the pound (from \$12,000 to \$8,000) and individual rock (from \$10–\$25 to \$15) quantities. The kilogram price increased from \$18,000–\$25,000 to \$20,000–\$28,000.

Of the 11,940 items analyzed by NFLIS between October 2002 and September 2003, cocaine accounted for 4,661 (or 39 percent), second only to marijuana (exhibit 7).

##### **Heroin**

Heroin indicators are relatively stable, with signs of slight decline. However, heroin in Louisiana poses a particular threat. Heroin abuse in New Orleans has risen over the past several years, and the city has been

and continues to have regional markets for heroin. Most heroin-related cases conducted by State and local agencies and the DEA are in the New Orleans area. The NOPD continues to view heroin and its abuse as significant, impacting homicides in Orleans Parish. Heroin is not only becoming more available in a purer form, it is also becoming more affordable.

Between 2001 and 2002, heroin ED rates were stable, at 46 per 100,000 population, however the rate decreased significantly between 2000 and 2002 (exhibit 1).

Of the 617 heroin ED mentions in 2002, 67 percent were for male patients, 55 percent for Blacks, 41 percent for Whites, 39 percent for patients age 35 and older, and 37 percent for those age 18–25. The number of mentions for female patients rose significantly from 79 in 2001 to 191 in 2002. Nearly one-half (49 percent) of the heroin ED mentions occurred during single-drug episodes. The primary motives for use were either dependence (46 percent) or psychic effects (35 percent). Major reasons for contacting the emergency department included unexpected reaction and overdose (31 and 26 percent, respectively).

In 2003, nearly 11 percent of treatment admissions in Orleans Parish were for primary heroin abuse, slightly lower than the proportion in 2002 but considerably higher than the proportions in 1993–1998 (exhibit 2). Nearly two-thirds of the primary heroin admissions in Orleans Parish were Black males.

In 2001, the DAWN ME reported 37 mentions of heroin/morphine; 2 were single-drug deaths (exhibit 3). Such deaths in 2001 were lower than the 48 reported in 2000.

Among adult male arrestees in the ADAM program, 15.5 percent tested positive for opiates in 2000, compared with 17.4 percent in 2002 and 16.3 percent in the first two quarters of 2003 (exhibit 4). Among female arrestees in the first three quarters of 2003, 13.3 percent tested positive for opiates, compared with only 9.2 percent in 2002.

The NOPD reported 301 heroin possession arrests in 2002, up from 274 in 2001, and 154 in the first half of 2003 (exhibit 5). The number of heroin distribution arrests, however, declined dramatically by 64 percent from 2001 to 2002, and they totaled only 95 in the first half of 2003. In the 2003 period, Black males continued to account for the majority of heroin possession and distribution arrests, at 66 and 86 percent, respectively (exhibit 6).

The DMP analyzed 23 heroin samples in New Orleans in 2002; 22 were from South America. The South American heroin had an average purity of 30.4 percent and sold for \$1.65 per milligram pure. The one other sample was from Southwest Asia, with a purity of 40 percent and a price of \$1.14 per milligram pure. The DEA reported that the price of heroin remained stable, averaging \$300–\$600 per gram, \$4,000–\$9,000 per ounce, and \$80,000–\$100,000 per kilogram.

Heroin accounted for only 6.2 percent of items analyzed by NFLIS between October 2002 and September 2003 (exhibit 7).

### **Other Opiates/Narcotics**

Most indicators of opiates other than heroin remained low over the last 7 years. However, treatment admissions for primary abuse of other opiates rose from 1.3 percent of all treatment admissions in 2002 to 3.4 percent in 2003. Hydromorphone (Dilaudid) continues to be replaced by OxyContin as the most popular opiate of abuse in the New Orleans area, but hydrocodone (Vicodin), propoxyphene (Darvon), alprazolam (Xanax), oxycodone (Percodan), and hydromorphone are the most widely diverted opiates in the area.

DAWN data show 1,133 ED mentions of narcotic analgesics/combinations in 2002 and a rate of 98 per 100,000 population (exhibit 1). While there was no significant change between 2001 and 2002, the increase in the rate from 2000 to 2002 was significant. In 2002, hydrocodone/combinations and oxycodone/combinations accounted for nearly 36 percent of the mentions (277 and 130, respectively).

Among treatment admissions in Orleans Parish in 2003, 85 (3.4 percent) were for primary abuse of “other opiates or synthetic opioids” or nonprescription methadone. Whites predominated, accounting for more than 85 percent of these admissions; 37 percent were White males and 47 percent were White females.

Deaths involving mentions of narcotic analgesics rose sharply from 1997 to 2001. Of the 200 narcotic analgesic mentions in 2001, 5 were single-drug deaths (exhibit 3).

As shown in exhibit 7, other opiates accounted for only 156 of the 11,940 items analyzed by NFLIS between October 2002 and September 2003.

## Marijuana

Marijuana continues as a major problem among youth in the city of New Orleans, but indicators suggest the problem is stabilizing.

The price of marijuana is decreasing in some areas of the State, due to the abundant availability of Mexican-produced marijuana. Mexican marijuana is frequently used to “bulk-up” domestic marijuana to increase profits. Reports also indicate that the production and cultivation of locally grown marijuana (both indoor and outdoor operations) is primarily a White activity.

Trend data from 1995 to 2002 show a rather stable rate of marijuana ED mentions. As shown in exhibit 1, there were 832 marijuana ED mentions in 2002, with a rate of 72 per 100,000 population.

Of the 832 marijuana ED mentions in 2002, 63 percent were for male patients; 50 percent were for Whites and 44 percent were for Blacks. Patients represented in the marijuana mentions were more evenly divided by age in the groups 18 and older: 31 percent were age 18–35, 25 percent were 26–34, and 36 percent were age 35 and older. Three-quarters of the mentions represented multidrug episodes. The most frequently reported motives for using marijuana were psychic effects (30 percent) and dependence (31 percent). Thirty-five percent of the mentions relating to reasons for contacting the ED fell in the “unknown” category. Slightly more than 26 percent represented patients who cited “overdose” on marijuana as the reason for contacting the ED.

The Orleans Parish treatment data showed little change in primary marijuana admissions from 1995 onward (exhibit 2). In 2003, the 734 primary marijuana admissions accounted for nearly 29 percent of all admissions. Nearly 69 percent were Black males, and 19 percent were Black females; White males accounted for 8 percent, and White females for around 3 percent.

ME data for 2001 show 39 mentions of marijuana (exhibit 3), with 2 being single-drug deaths. The 2001 mentions represent a substantial decline from the numbers reported from 1998 to 2000.

ADAM data show that slightly more than 50 percent of male arrestees tested marijuana-positive in the first two quarters of 2003, up from 47 percent in 2002 (exhibit 4). The proportions of females testing positive fluctuated between 2000 and 2002, ranging between 25 and 28 percent. In the first three quarters

of 2003, slightly more than 30 percent tested marijuana-positive.

As shown in exhibit 5, arrests for marijuana possession increased slightly between 2001 and 2002, while those for marijuana distribution declined by 24 percent during that same time period. In the first half of 2003, arrests for possession of marijuana continued to be higher than arrests for possession of cocaine and heroin, totaling 3,100. As with arrests for other drugs in the first half of 2003, Black males accounted for the majority of marijuana possession and distribution arrests, at 66 and 77 percent, respectively (exhibit 6).

Marijuana prices remained stable at \$100 per gram, \$125–\$160 per ounce, \$750–\$1,000 per pound, and \$2,000 per kilogram. The average price of a joint was \$2, down from \$5 in 2001.

Between October 2002 and September 2003, marijuana accounted for 51.4 percent of the items analyzed by NFLIS ( $n=6,141$ ) (exhibit 7).

## Methamphetamine/Amphetamines

Stimulants such as amphetamines and methamphetamine do not appear to be major substances of abuse in New Orleans. In rural areas of the State, however, methamphetamine is a problem, with the abuse primarily evident among members of biker organizations.

There was a significant increase in methamphetamine ED mentions between 2000 and 2002 (exhibit 1). The 53 mentions in 2002 were about equally divided between patients by gender; 15 were Black. Most methamphetamine mentions represented patients in the 18–25 and 35-and-older age categories (32 and 41 percent, respectively). In 2002, the number of amphetamine ED mentions totaled 128, with no significant change from 2000 or 2001. Amphetamine ED mentions were about equally divided between male and female patients.

In Orleans Parish treatment programs in 2003, there were only seven admissions for primary methamphetamine abuse and seven for primary amphetamine abuse.

No methamphetamine-related death mentions were recorded in the DAWN ME system from 1997 to 2001. Across that time period, 26 amphetamine mentions were recorded, with 3 occurring in 2001 (exhibit 3).

In the ADAM program, 2 percent of male arrestees tested methamphetamine-positive in the first two

quarters of 2003, while 0.8 percent of females did so in the first three quarters of 2003.

Prices for methamphetamine remained stable in 2002, averaging \$100–\$150 per gram, \$900–\$1,500 per ounce, and \$12,000–\$16,000 per pound.

Methamphetamine/amphetamines accounted for 30 of the 11,940 items analyzed by NFLIS between October 2002 and September 2003.

### Club Drugs

Use of club drugs continues to be reported in clubs and bars around the French Quarter area of the city. Drugs such as methylenedioxymethamphetamine (MDMA or ecstasy) and gamma hydroxybutyrate (GHB) are particularly abused near large metropolitan areas of the State where college populations are heavy. Use of drugs such as ecstasy and flunitrazepam (Rohypnol) and similar “date rape” drugs are on the rise among youth in the city. Youth continue to be lured to these drugs because of their “hipness” and the myth that club drugs are safe. Ketamine abuse appears to have declined in the city, with little mention other than among teenagers experimenting with this drug.

DAWN ED data suggest a significant increase in MDMA mentions from 2000 to 2002 and from 2001 to 2002 (exhibit 1). The 79 MDMA mentions in 2002 were equally divided among male and female patients; 92 percent were White, 61 percent were age 18–25, and 23 percent were age 26–34. Nearly 70 percent represented multidrug episodes. The motive for use was the drug’s “psychic effects” in most cases (86 percent), with overdose (33 percent) and unexpected reaction (39 percent) accounting for the most frequently reported reasons for contacting the ED, followed by seeking detoxification (18 percent).

ED mentions for other drugs used in the “club scene” were few in number. There were 34 mentions of GHB in 2002, significantly down from the 72 in 2001. The 4 mentions of lysergic acid diethylamide (LSD) also represented a significant decrease from the 18 reported in 2001. There were no mentions of flunitrazepam (Rohypnol), and mentions for ketamine totaled only three in 2002.

The DAWN ME data cited seven “club drug” deaths in 2001, more than double the number in 2000 (exhibit 3).

According to NFLIS data, only a small number of club drugs were among the 11,940 items analyzed between October 2002 and September 2003: 53 MDMA items and 24 ketamine items.

### Benzodiazepines

The rate of DAWN ED mentions per 100,000 population for benzodiazepines was 15 in 2002, the same as in 2001 (exhibit 1).

DAWN ME data showed 73 mentions of benzodiazepines in 2001 (exhibit 3), down slightly from the 78 reported in 2000. In the Orleans Parish 2003 treatment data, there were four admissions for primary abuse of benzodiazepines.

Benzodiazepines accounted for 113 of the items analyzed by NFLIS between October 2002 and September 2003, with alprazolam items totaling 74.

### Alcohol

Alcohol abuse is a serious problem in New Orleans, as it is in many cities and towns in the United States. Alcohol and drugs are often used together, also a common pattern across the Nation.

The DAWN ED data show 1,430 alcohol-in-combination mentions in 2002, up 21 percent from 2001. The 2002 rate was 124 per 100,000 population.

In Orleans Parish in 2003, primary alcohol admissions accounted for slightly more than 21 percent of all admissions (exhibit 2). Of the 538 primary alcohol admissions, 49 percent were Black males and 22 percent were White males. Of the 156 admissions for females, 56 percent were Black.

In the 2001 DAWN ME data, 78 mentions involved alcohol-in-combination with other drugs (exhibit 3).

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Through May 2003, 5,092 adult cases of AIDS were reported in Louisiana, compared with 6,082 during the same period in 2002.

Of these, 23 percent were injection drug users (IDUs) and 10 percent were male IDUs who had sex with other men (MSM/IDUs). During the same period in 2002, IDUs represented 18 percent and MSM/IDUs accounted for 10 percent of cases.

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**Exhibit 1. Numbers of ED Mentions of Selected Drugs and Rates Per 100,000 Population in New Orleans: 2000–2002**

Drug	Mentions			Rate		
	2000	2001	2002	2000	2001	2002
Cocaine	1,998	1,422	1,674 <sup>1</sup>	162	123	145 <sup>1</sup>
Heroin	982	530	617 <sup>1</sup>	80	46	53 <sup>1</sup>
Narcotic Analgesics/ Combinations	675	857	1,133	55	74	98 <sup>1</sup>
Marijuana	1,068	814	832	87	71	72
Methamphetamine	27	... <sup>2</sup>	53 <sup>1</sup>	2	...	5 <sup>1</sup>
Amphetamines	103	118	128	8	10	1 <sup>1</sup>
MDMA	44	34	79 <sup>1,3</sup>	4	3	7 <sup>1,3</sup>
Benzodiazepines	659	772	947	9	15	15

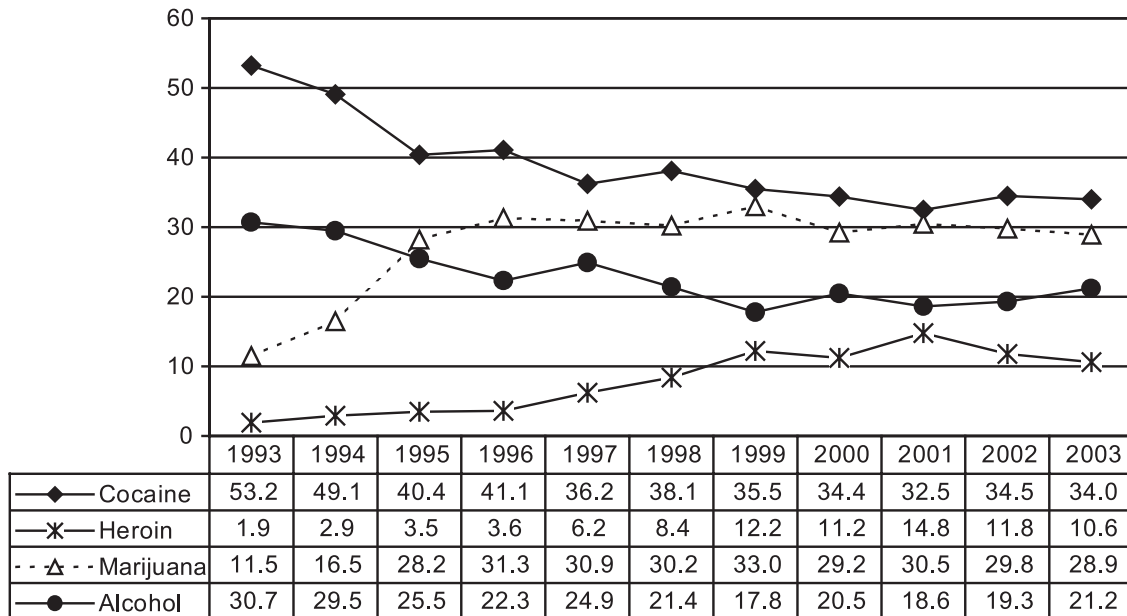
<sup>1</sup>The percent change between 2000 and 2002 was statistically significant.

<sup>2</sup>Dots (...) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.

<sup>3</sup>The percent change between 2001 and 2002 was statistically significant.

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 2. Percentages of Admissions in Orleans Parish by Selected Drug and Year: 1993–2003**



SOURCE: Louisiana State Office of Alcohol and Drug Abuse

**Exhibit 3. Number of DAWN ME Death Mentions in New Orleans: 1997–2001**

Drug Category	Year					Single-Drug Deaths, 2001
	1997	1998	1999	2000	2001	
Alcohol-in-Combination	54	63	86	73	78	–
Cocaine	66	75	82	111	90	19
Heroin/Morphine	20	29	38	48	37	2
Marijuana	28	49	58	55	39	2
Amphetamines	5	7	7	4	3	–
Club Drugs <sup>1</sup>	–	1	4	3	7	–
Narcotic Analgesics <sup>2</sup>	59	69	124	118	200	5
Other Analgesics	30	13	13	9	19	–
Benzodiazepines	34	55	67	78	73	–
Antidepressants	9	6	26	11	17	1
All Other Substances <sup>2</sup>	90	43	73	39	101	3
Total Drug Deaths	162	175	208	223	212	32
Total Drug Mentions	395	410	578	549	664	–
Total Deaths Certified	5,005	5,149	5,070	5,139	5,045	–

<sup>1</sup>Includes ecstasy (MDMA), ketamine, GHB, GBL, and Rohypnol.

<sup>2</sup>Not tabulated above.

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 4. Percentage of ADAM Adult Arrestees Testing Positive for Selected Drugs in New Orleans: 2000–2003**

Gender/Year	Cocaine	Opiates	Marijuana
Males			
2000	34.8	15.5	46.6
2001	37.3	15.6	44.9
2002	42.4	17.4	46.9
2003 <sup>1</sup>	49.0	16.3	50.4
Females			
2000	41.1	8.5	28.0
2001	38.1	7.6	25.1
2002	42.2	9.2	26.0
2003 <sup>2</sup>	37.3	13.3	30.3

<sup>1</sup>Weighted data are summed for the first two quarters.

<sup>2</sup>Unweighted data are summed for the first three quarters.

SOURCE: ADAM, NIJ

**Exhibit 5. Number of Drug Arrests in Orleans Parish: 2001–June 2003**

Drug/Offense	2001	2002	2003
Cocaine			
Possession	2,176	3,649	1,513
Distribution	1,031	1,434	662
Heroin			
Possession	274	301	154
Distribution	544	196	95
Marijuana			
Possession	5,500	5,959	3,100
Distribution	1,299	981	542
Other Drugs	383	535	192
Drug Paraphernalia	2,050	2,640	1,284

SOURCE: New Orleans Police Department

**Exhibit 6. Arrests in Orleans Parish for Possession and Distribution of Cocaine, Heroin, and Marijuana by Gender, Race/Ethnicity, and Percent: First Half of 2003**

Drug/Demographic	Percent
Cocaine Possession	
Black Males	72.4
Black Females	12.4
White Males	10.2
White Females	4.4
Other (male/female)	0.6
Cocaine Distribution	
Black Males	85.8
Black Females	9.8
White Males	3.2
White Females	0.8
Other Males	0.4
Heroin Possession	
Black Males	65.6
Black Females	11.7
White Males	14.3
White Females	8.4
Heroin Distribution	
Black Males	85.9
Black Females	10.6
White Males	3.5
Marijuana Possession	
Black Males	65.6
Black Females	11.8
White Males	14.3
White Females	8.4
Marijuana Distribution	
Black Males	77.1
Black Females	11.3
White Males	9.2
White Females	2.2
Other Females	0.2

SOURCE: New Orleans Police Department



**Exhibit 7. Number of Items Analyzed for Specific Drugs in New Orleans and Percentage of Total Items: October 2002–September 2003<sup>1</sup>**

<b>Drug</b>	<b>Number</b>	<b>Percent</b>
Cocaine	4,661	39.0
Heroin	739	6.2
Other Opiates	156	1.3
Marijuana	6,141	51.4

<sup>1</sup>N=11,940

SOURCE: NFLIS, DEA

# Drug Use Trends In New York City

Rozanne Marel, Ph.D., John Galea, M.A., Kenneth A. Robertson, M.A., Robinson B. Smith, M.A.<sup>1</sup>

## ABSTRACT

*Drug use trends were again mixed for this reporting period. Cocaine indicators in New York City, which had declined at the end of the last decade, continued to show some slight signs of increasing. While ED mentions remained stable, treatment admissions increased, and the Street Studies Unit reported signs of cocaine use rebounding. Heroin trends appeared to stabilize in both ED mentions and treatment admissions. Heroin remained widely available at very high purity levels. In some parts of the city, heroin was available at discounted prices. Even marijuana indicators, which had been reaching new peaks, seemed to have stabilized. Marijuana was available in a wide variety of flavors and colors. Many kinds of prescription drugs continued to be available on the street. For AIDS cases in New York City, injection drug use remained the modal risk factor.*

## INTRODUCTION

### Area Description

New York City, with 8 million people, is by far 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. Findings from the 2000 census show that the population diversity continues: 45 percent are White; 27 percent are Black; 27 percent are Hispanic of any race; 10 percent are Asian and Pacific Islander; and less than 1 percent are Native American, Eskimo, and Aleut. Nearly 2 million New York City residents are foreign born, and nearly 700,000 legal immigrants became New York City residents between 1990 and 1998. The Dominican Republic is currently the city's largest source of immigrants.

The city remains the economic hub of the Northeast. Its main industries include services and wholesale and retail trade. Of the more than 3.5 million people employed in the city, 20 percent commute from surrounding areas. Overall, the unemployment rate in

New York City for October 2003 was 8.2 percent, compared with 6.2 percent in New York State and 6.0 percent in the Nation. According to the Bureau of Labor Statistics, the New York City rate is the same as October 2002, but is dramatically higher than the unemployment rate for October 2001, when the rate was 6.8, and October 2000, when the rate was 5.4. New York City is still experiencing the economic aftereffects of the September 11, 2001, attacks on the World Trade Center. Many jobs in New York City were lost as a result of decreased business activity and the relocation of business firms.

### Data Sources

This report describes current drug abuse trends in New York City from 1995 to 2003, using the data sources summarized below:

- **Drug abuse-related death data** are from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), mortality system. Data from 1995 covered New York City, Long Island, and Putnam County, and included heroin/morphine and unspecified types of opiates. Beginning in 1996, DAWN covered only New York City, and the category for heroin/morphine no longer included other opiates. According to Mortality Data From the Drug Abuse Warning Network, 2001, incomplete data were received for the New York metropolitan area, so data for New York were not presented for 2001.
- **Emergency department (ED) drug mentions data** were derived from DAWN, OAS, SAMHSA, for 1995 through 2002. The 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 the first half of 2003 and included both State-funded and nonfunded admissions. Demographic data are for the first half of 2003.

<sup>1</sup>The authors are affiliated with the New York State Office of Alcoholism and Substance Abuse Services, New York, New York.

- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for 2002. Adult males were sampled representatively, and data are weighted. Female data are unweighted.
- **Drug-related arrest data** were provided by the New York City Police Department (NYPD) for 1994 through the first half of 2002.
- **Drug price, purity, and trafficking data** were provided by the Drug Enforcement Administration (DEA) and the DEA's Domestic Monitor Program (DMP) for heroin. These data are supplemented by information from the OASAS Street Studies Unit (SSU) reports. Data on methamphetamine laboratories were provided by the New York State Police.
- **Cocaine use during pregnancy data** were provided by the New York City Department of Health for 1995–2001.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the New York City Department of Health for 1984–2002.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

In general, cocaine indicators, which had been declining, are beginning to show increases, and the drug still accounts for major problems in New York City (exhibit 1).

DAWN figures for cocaine-involved deaths, which declined steadily from 1995 to 1999, showed a 26-percent increase in 2000 (to 492 from 394 in 1999) (exhibit 1). For the cocaine drug deaths in 2000, 40 percent involved one drug, 36 percent involved two drugs, 16 percent involved three drugs, and 8 percent involved four or more drugs. No DAWN mortality data were available for 2001.

For the New York City metropolitan area, DAWN estimates for ED mentions remained essentially the same as last year (13,961 for 2002 vs. 13,898 for 2001). There was a significant decline of 29 percent, however, since 1995, when there were 19,715 mentions. The rate of cocaine ED mentions per 100,000 population in the New York City metropolitan area for 2002 was 166, the same as in the previous 2 years, but a decline of 32 percent since 1995. The comparable national rate for 2002 was 78. While the national rate

was stable between 2001 and 2002, there was a 33-percent increase in this rate between 1995 and 2002.

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 slightly to 14,375 in 2001 and 15,608 in 2002, and showed continuing increases with 8,141 in the first half of 2003. In the first half of 2003, cocaine admissions constituted 24 percent of all of New York City's 34,553 drug and alcohol treatment admissions (excluding alcohol-only).

Exhibit 2 shows demographic characteristics of cocaine treatment admissions for the first half of 2003 by the two primary modes of use: smoking crack (representing 61 percent of cocaine admissions) and using cocaine intranasally (representing 35 percent). Those who entered treatment for smoking crack were more likely to be female (38 vs. 24 percent), Black (66 vs. 43 percent), readmissions to treatment (78 vs. 70 percent), and without income (40 vs. 29 percent). The two groups were similar in secondary drugs of abuse, primarily alcohol and marijuana, although intranasal users were more likely than crack smokers to have marijuana as a secondary drug of abuse (24 vs. 19 percent). While alcohol remained the most common secondary drug for all primary cocaine users, the percentages were lower than in the first half of 2002, when 48 percent had alcohol as a secondary drug, compared with 40 percent in the first half of 2003. It should be noted that all admissions for primary cocaine abuse represented an aging population, and those smoking crack tended to be older than those using cocaine intranasally.

ADAM urinalysis data for 2002 show drug positives remaining the highest for cocaine. Findings show that 49 percent of male arrestees were cocaine-positive. For female arrestees, 39 percent were cocaine-positive.

The SSU finds cocaine hydrochloride (HCl) highly available, and buying and use continue to rebound. Cocaine is usually sold in \$10, \$20, \$30, and \$60 amounts. The most common price is the \$20 packet, which contains about 0.25 ounces. While powder cocaine has typically been sold from indoor locations, observers report that there are some street sales of half grams selling for \$20 to \$25.

The selling of cocaine involves three basic methods, with the techno-method or virtual connection method continuing to gain popularity. A buyer makes a connection with a seller through the use of a beeper, cell

phone, or the Internet; an order is made; and a meeting or delivery is scheduled. The most common location for selling cocaine is an apartment, and cocaine sellers typically work out of their own apartment or one belonging to a relative. Another common method is street selling done in connection with an apartment operation. Street sellers work outside to reduce the amount of buyer traffic in and out of an apartment. Buyers who want a \$10 or \$20 amount of cocaine obtain the product from the street vendor, while individuals interested in buying larger quantities are directed upstairs. Like most other street sellers, those who sell cocaine usually sell only one type of drug offered in one standard package size. Virtual sellers and dealers working out of apartments are able to sell other drugs. Field researchers report that some cocaine sellers are also offering club drugs.

There is a great variety of package methods used in the marketing of cocaine in New York City, including aluminum foil, light plastic wrap knotted at both ends, cellophane, vials, nail-sized plastic bags, folded paper, magazine pages, and balloons. Of these, the traditional method of aluminum foil continues to be the most frequently used, followed by plastic wrap and cellophane.

The use of brand names is becoming less common, since they attract attention from law enforcement and are too easy to duplicate by competitors. Currently, brand names tend to be the color of the package, such as “blue bag.” “Perico,” a Spanish slang term for cocaine, “powder,” and “fishscale” are also common slang terms.

Dominican drug gangs dominate the distribution of cocaine in New York City. Most cocaine sellers are part of an extended organization that involves some form of command structure and a centralized control over multiple selling sites. These gangs are usually composed of family, blood relatives, and friendship ties. In some parts of the city outside of Manhattan, it is reported that Mexican gangs are getting involved in the sale of cocaine. On the street level, sellers frequently match the predominant racial composition of the surrounding community.

The majority of powder cocaine users are Hispanic and Black, but there is a sizable number of White users, including an influx of young white-collar professionals, who use cocaine recreationally. Field staff also report large clusters of young buyers in the 18–25-year-old range, suggesting a new generation of users. According to street interviews, most cocaine HCl users report that they only “snort” the

drug. However, an increasing number report that they know people who have started to inject cocaine. Another method of use includes smoking cocaine with marijuana in a blunt cigar called a “Woolie.” The SSU also found that due to the high purity levels of cocaine, some crack users are purchasing cocaine HCl in order to cook their own crack. The SSU also reports that many heroin users who buy cocaine are doing so to “speedball.” Heroin users who speedball will either snort the combination of cocaine and heroin or inject it.

Crack users report that crack continues to be highly available, despite a reduction in “open-air” markets and less aggressive selling because of concerns over security. The reduction in open-air markets is attributed to police department efforts aimed at suppressing street drug selling. Crack is associated with three basic prices: \$5, \$10, and \$20. The high availability of crack is forcing sellers to be more flexible with prices. The SSU reports seeing \$10 crack bags offered for \$7 to \$8. It also reports that several areas are selling jumbo \$10 vials which weigh a little more than the regular \$10 package.

There are three basic packaging methods for crack: thumbnail-sized plastic bags, plastic vials, and glassine bags. Of these, the thumbnail-sized bag seems to be the most popular, followed by the plastic vial. As with powder cocaine, brand names are usually the color of the package. Old slang terms, such as “rock” and, in Spanish, “Roca,” continue to be used, and “slab” is also a popular name for crack.

Street crack sellers are typically Black or Hispanic males, and Dominican drug gangs dominate the middle level dealing operation that supplies street sellers. Crack sellers are typically older than other street sellers; most are between 26 and 35 years of age. Most crack sellers operate within a partnership or small localized crew (two to five people). Many of the heavy crack selling locations around the city are found in or around public housing developments, followed by apartments, which are not homes, but specifically established selling locations to be abandoned, if necessary. Although there are still open-air street locations, fewer crack sellers are operating from the street because of law enforcement efforts. Street crack sellers tend to not sell other drugs, although they may sell marijuana, which many users smoke to reduce the “crash-effect” of prolonged use of crack. The majority of crack users are Black and Hispanic males. Crack users appear to be getting older. Field researchers report very few young users, and most buyers appear to be veteran users.

The DEA reports that prices for cocaine powder are \$22,000–\$30,000 per kilogram and \$900–\$950 per ounce. To minimize conspicuous traffic, transactions are few but prices are high. The DEA reports that crack sells for about \$1,000–\$1,500 per ounce and \$27–\$45 per gram.

The NYPD reported a decline in cocaine arrests since 1995 ( $n=40,846$ ) (exhibit 1). The number of cocaine arrests in 2001 was 23,498, a 42-percent decrease since 1995. Total cocaine arrests in the first half of 2002 ( $n=9,334$ ) reflected a decline from 13,956 in the first half of 2001. Of the cocaine arrests in the first half of 2002, 81 percent involved crack.

Another important indirect indicator of cocaine use is the number of births in New York City to women who admit using cocaine during pregnancy. This not only indicates use among women, but it underscores a serious aspect of the cocaine problem. For several years, the number of women using cocaine during pregnancy increased. In 1989, the number of births to women who used cocaine peaked at 3,168. After 1989, the number steadily declined to 438 in 2001 (exhibit 1)—an 86-percent decline over 12 years.

## Heroin

DAWN medical examiner (ME) figures for heroin-involved deaths in the New York City metropolitan area present an inconsistent picture over the last few years, with both increases and decreases (exhibit 3). In 2000, there were 193 heroin-involved deaths. No DAWN mortality data were available for 2001.

Heroin ED trends appear to have stabilized (exhibit 3). While the number of heroin ED mentions in the New York metropolitan area peaked in the mid-1990s, they remained relatively stable between 1995 ( $n=10,706$ ) and 2002 ( $n=10,397$ ). The New York metropolitan area recorded a rate of 123 heroin mentions per 100,000 population for 2002, almost the same as the rate for 2001, 127. The estimated national rate was 36 heroin mentions per 100,000 population in 2002.

Primary heroin admissions to treatment programs in New York City gradually increased between 1995 and 2002. Overall, admissions increased from 18,287 in 1995 to 22,514 in 2002, a 23-percent increase (exhibit 3). There was a slight decrease, however, between 2001 and 2002, and the total for the first half of 2003 (11,442) was similar to the total in the first half of 2002 (11,357). In the first half of 2003, primary heroin admissions constituted 33 percent of New York City's 34,553 drug and alcohol treatment admissions

(excluding alcohol only). 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, to 60 percent in 1999 through 2002, and 59 percent in the first half of 2003. Meanwhile, heroin injection increased among heroin admissions, from 32 percent in the second half of 1998 to 37 percent in the first half of 2003.

Exhibit 4 highlights general demographic characteristics of heroin abusers admitted to all New York City treatment programs in the first half of 2003 by mode of use. In general, primary heroin admissions were overwhelmingly male (75 percent), older than 35 (69 percent), more likely to be Hispanic (53 percent) than Black (26 percent) or White (19 percent), usually readmissions to treatment (88 percent), and likely to report cocaine as a secondary drug of abuse (36 percent). Compared with heroin injectors, intranasal users were more likely to be Black (32 vs. 17 percent) and have some criminal justice status (39 vs. 26 percent). In contrast, primary heroin injectors were more likely than intranasal users to be White (31 vs. 12 percent), to report cocaine as a secondary drug of abuse (43 vs. 33 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 2002 that figure increased to 16,096. In the first half of 2003, the number of admissions to crisis services for heroin was 7,804.

ADAM urinalysis data show fewer adult arrestees testing positive for opiates than for cocaine or marijuana. In 2002, 14 percent of females tested opiate-positive, as did 15 percent of males.

From 1992 to 2000, the DMP found average heroin purities to be generally above 60 percent. Findings for 2002 show an average purity of 61.4 percent, up from 56.0 percent in 2001. The associated price is \$0.36, a decrease from \$0.90 per milligram pure in 2001, and a price similar to earlier years. Kilogram prices are \$65,000–\$80,000 for South American heroin, \$65,000–\$140,000 for Southwest Asian heroin, and \$40,000–\$80,000 for Southeast Asian heroin.

According to the SSU field staff, heroin in New York City continues to be easy to obtain in all five boroughs of New York City. Heroin sellers tend to be less aggressive and overt than crack street sellers. Field staff, however, report an increasing number of heroin sellers working from street locations. The areas in which heroin is most readily available are primarily low-income, Hispanic and Black communities with extensive public housing developments.

Heroin purity remains high, and it is still a much sought after substance in New York City. While demand remains high, there seems to be more than enough heroin to meet the demand. In fact, in parts of Manhattan, the dealers are giving sellers a special deal. The seller can buy a bundle (10 \$10 bags) from the dealer for \$60, thus earning \$40 for him/herself. In turn, the seller has enough profit or maneuverability to reduce the price to \$8 or \$9 per bag and undersell the competition if the need arises. Dealers in the other boroughs are giving their sellers a bundle for \$90, making the profit margin only \$10 per bundle. In these areas, sellers are more reluctant to reduce the price of the bag because of the smaller profit margin.

Reportedly, the heroin trade is dominated by Colombians working through a distribution network controlled by Dominican gangs. Heroin distribution in New York City functions according to a three-tier system. The first tier is occupied by Colombians, the second tier by Dominican drug gangs, and the third tier by street sellers. Most heroin sellers operate from indoor locations, affording them better security and cover. The apartment is usually a location for dealing heroin, and not the seller's living quarters. The trend of selling heroin from the street or semipublic locations, such as hallways, restaurants, and cars, continues. The street sellers tend to be independent sellers working by themselves, or with a partner or small crew (two to five individuals). Although heroin is most often sold from indoor locations, other common locations are public housing developments, playgrounds, parks, restaurants, and near drug treatment centers. Although heroin sellers do not tend to sell other drugs, the most common other drug they would sell would be cocaine, since some heroin users like to speedball. While the majority of heroin users are Black and Hispanic males between 35 and 50 years old, there continue to be young new buyers observed. The majority of buyers report that they are sniffers and only snort, although field researchers continue to report individuals offering needles for sale at or near heroin selling locations. The price of a hypodermic needle on the street is \$2. In addition, needle exchange programs and other harm reduction efforts continue to distribute large numbers of needles.

There is no indication that Mexican or Asian heroin is available or being sold in the city. The most common form of heroin in the city appears to be a white or light beige powder. The purity is reported to be of good snortable quality. The SSU reports that in some areas of the city, heroin is being cut with prescription pills, such as Percocet, Valium, and Xanax, to enhance the high and produce increased sales with reduced amounts of heroin in the package. Another report is that dealers are scraping the coating off of OxyContin, pulverizing the pill to powder, and mixing it with heroin to produce an enhanced high. Researchers also report that some dealers are mixing white chalk with heroin to increase the weight.

Heroin has far less price variation than some of the other street drugs. The predominant price is \$10 per packet, and each contains approximately 0.10 gram of powder. With high purity levels and availability, the SSU has reported seeing an increase in \$5 bags across the city.

Of the five principal packaging methods (glassine bags, cellophane, light plastic wrap knotted at both ends, folded paper, and balloons), the glassine bag continues to be the most popular, followed by cellophane and plastic wrap. In an effort to detract law enforcement or introduce a new brand of heroin, dealers may change the color of the package or sell clear bags. Although the use of brand names is becoming less common, the following new brands were recently found by the SSU: "Cash Money," "Pay Day," "One on One," "Passion," and "XXI."

Much like cocaine arrests, heroin arrests reached a high of 28,083 in 1989, declined for a few years, and then peaked in 1995 ( $n=38,131$ ) (exhibit 3). Heroin arrests increased slightly between 1999 and 2000 (from 32,949 to 33,665) but declined again in 2001 to 27,863, a decline of 27 percent since 1995. If the number of heroin arrests for the first half of 2002 (13,686) holds steady for the second half of the year, the total will be roughly at the same level as in 2001.

### Other Opiates

Among ME deaths reported by DAWN, the category of narcotic analgesics, which includes all legal and illegal narcotic analgesics and combinations (excluding heroin/morphine), showed a large increase in New York City from 252 in 1998 and 271 in 1999 to 590 in 2000. It should be noted, however, that in 1996 there were 511 such deaths. No DAWN mortality data were available for New York City for 2001.

Although the numbers are small, ED mentions of hydrocodone/combinations and oxycodone/combinations increased in recent years. According to DAWN data, hydrocodone/combinations mentions increased from 34 in 1995 to 88 in 2002, an increase of 159 percent. Between 2001 and 2002, however, the number of mentions went from 98 to 88. Oxycodone/combinations mentions also showed a tremendous increase, from 56 mentions in 2000 to 135 in 2002, an increase of 141 percent. In addition, between 1995 and 2002 oxycodone/combinations mentions increased 297 percent from 34 to 135. As noted earlier, the SSU reports that in parts of the city, some heroin dealers are mixing OxyContin in the heroin they sell to produce an enhanced high.

According to the SSU, OxyContin is available on the street for \$1 for 10 milligrams and \$10 for 40 milligrams.

## Marijuana

In New York City, marijuana indicators, which had increased steadily and dramatically, appear to be stabilizing (exhibit 5). The total number of marijuana ED mentions—estimated from the current sample of hospitals—went from 2,974 in 1995 to 3,923 in 2002. This change was not significant. The rate of marijuana ED mentions for 2002 for the New York City metropolitan area was 47 per 100,000 population, the highest rate in recent years. The comparable national estimate was 47 per 100,000 population in 2002.

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 1). The total for the first half of 2003 (6,808), however, was essentially the same as the total in the second half of 2002 and lower than in the first half of 2002. In 1991, primary marijuana admissions represented less than 5 percent of all treatment admissions; by the first half of 2003, these admissions represented 20 percent of admissions (excluding alcohol only) to all New York City treatment programs.

Exhibit 6 shows demographic characteristics of primary marijuana admissions to all New York City treatment programs in the first half of 2003. The vast majority were male (79 percent), and 34 percent were younger than 21. More than one-half (54 percent) were Black, about one-third (35 percent) were Hispanic, and 9 percent were White. Alcohol was the

secondary drug of abuse for 39 percent of the marijuana admissions, and two-thirds had some criminal justice status (66 percent).

According to the SSU, marijuana continues to be the most widely available illicit drug in New York City. It continues to be of very good quality and potency. Marijuana continues to be the most widely used drug among teenagers. Marijuana purity and availability remain high, while the price ranges from a low of \$50 for one-quarter ounce, to \$150 for an ounce, to \$2,000 per pound for regular. “Hydro” can cost \$300–\$1,100 for an ounce and \$3,000 per pound. Thumb-nail-sized plastic bags, followed by glassine bags, continue to be the most popular packaging methods. Marijuana continues to come in different colors and flavors. The SSU reports that marijuana can be sprayed with a watermelon air freshener to make it smell like watermelon and enhance the drug with the chemicals that are in the freshener. This particular brand is called “Watermelon Haze.” Another variation is “Coffin,” a potent mixture of Hydro with “Purple Haze” and “Chocolate.” It is packaged in a little plastic box in the shape of a coffin and sells for \$20. Other brand names reported by the SSU are “White Haze” (a.k.a. “White Widow”), “Black,” “Raspberry-flavored,” “Blueberry-flavored,” “Purple Haze,” and “Bubble Gum” (very green, moist, and seedless).

The majority of marijuana sellers are adolescents and young adults who tend to reflect the ethnic makeup of their community. As mentioned earlier, the technomethod in which a connection is made through beeper, cell-phone, or the Internet has gained in popularity. Marijuana sellers usually work out of their own apartments, helping to supplement their income and habit. Street selling, which is still quite common in certain communities, presents the highest risk.

While the use of marijuana cuts across all social groups, the drug seems to be most popular among adolescents and young adults. Marijuana is still very popular with inner city youth. The SSU reports seeing youth as young as 12–13 smoking marijuana in parks. Traditionally, marijuana was smoked in a joint, but this method is less common now. The most popular method now involves the use of blunts, hollowed out cigars, or marijuana wrapped in cigar leaves. Very often the leaves are dipped in brandy or some other aromatic liquor, and a number of companies are marketing individually rolled cigar leaves (\$1 each), which come in various flavors.

Adult arrestees in the ADAM samples for 2002 were much more likely to test positive for marijuana than

for opiates. About 44 percent of male arrestees tested positive for marijuana, as did 31 percent of the females. For males, the number of marijuana-positives approached that for cocaine-positives.

According to the DEA, marijuana prices can range from \$200 to \$2,000 per pound wholesale and from \$1,000 to \$5,000 per pound for hydroponic marijuana.

In spite of decriminalizing possession of small amounts of marijuana, the NYPD continues to make a large number of marijuana-related arrests in New York City, although the number of arrests is decreasing (exhibit 5). Cannabis-involved arrests had reached a low of 4,762 in 1991, but they increased more than 12 times in the next 9 years to 60,455 in 2000. Arrests in 2001 were at a lower level than in 2000, but they still accounted for the second largest yearly total at 47,651. Data from the first half of 2002 (22,969) show marijuana arrests at a lower level than in the first half of 2001 (27,693), but at about the same level as during the late 1990s. For arrests in the first half of 2002, approximately 98 percent were for misdemeanors, and 33 percent of involved persons age 20 or younger. Moreover, cannabis arrests accounted for 48 percent of all drug arrests in New York City in the first half of 2002, a dramatic change from earlier years, and continuing the trend seen in the last 5 years.

### Stimulants

Although methamphetamine is popular in other parts of the Nation, there were relatively few arrests, ED mentions, deaths, and treatment admissions related to the drug in New York City. For example, in 2000, only three methamphetamine deaths were reported in the five boroughs of New York City. While the total number of methamphetamine ED mentions in 2002 was small (63), it represented a 174-percent increase since 1995 (23 mentions). Use of methamphetamine, and perhaps ketamine as well, appears to be especially on the rise among young males in the gay community. Methamphetamine is available in powder, pill, or liquid form, with pill form being the most popular. There has been a slight increase in the availability and use of methamphetamine, especially in the Bronx, where researchers were able to find “Crystal Meth” being sold. While “Crystal Meth” found in the Bronx is smoked, methamphetamine found in gay clubs throughout New York City is injectable.

Although the focus of this report is New York City, it should be noted that the New York State Police have found an increasing number of methamphetamine

labs in areas of the State outside of New York City. For example, in 1999 the State Police reported 2 clandestine lab incidents in the State, compared with 9 in 2000, 18 in 2001, 46 in 2002, and 10 in the first 6 weeks of 2003.

### Depressants

While some indicators of the nonmedical use of psychoactive prescription drugs (e.g., hospital emergencies, deaths, and treatment admissions) have not been increasing, the SSU continues to report a variety of drugs readily available on the street for \$1 or more per pill.

Alprazolam (Xanax) and clonazepam (Klonopin) ED mentions increased since the mid-1990s, while diazepam (Valium) mentions have declined. Alprazolam mentions increased 92 percent, from 333 in 1995 to 638 in 2002. Clonazepam ED mentions increased 182 percent from 117 in 1995 to 330 in 2002; moreover, they increased 48 percent from 2000 to 2002 (from 223 to 330). Conversely, diazepam ED mentions decreased 58 percent from 450 in 1995 to 189 in 2002. Diazepam ED mentions also declined recently, falling 43 percent between 2000 and 2002 and 32 percent between 2001 and 2002. There continue to be few (about 1 percent) treatment admissions with a psychoactive prescription drug as a primary drug of abuse.

According to the SSU, pills available on the street include Percocet, Vicodin (\$5 per pill), Dilaudid (\$25 per pill), Xanax (\$3 for 1-milligram pills [Footballs], \$5 for 2-milligram pills), Klonopin (\$5 per pill), and Ambien (\$3 per pill). Many pill sellers obtain their inventory of pills by getting prescriptions from unscrupulous doctors. There are a number of pill selling locations across the city where sales remain stable, and the numbers of pill users are stable.

### Hallucinogens

In the past few years, phencyclidine (PCP)-involved deaths averaged about 6 per year, except for 1995, when 16 such deaths were reported by DAWN. Between 1998 and 1999, PCP-involved deaths increased from 2 to 11. Overall, the number of PCP ED mentions went from 697 in 1995 to 341 in 2002. The number of mentions in 2001 was 203. Lysergic acid diethylamide (LSD) mentions declined significantly from 188 mentions in 1995 to 49 in 2002, a decrease of 74 percent.

According to observations by the SSU, PCP use is increasing across the city, especially in upper



Manhattan. It is packaged like marijuana and sells for \$10. Blunts laced with PCP cost \$10–\$20 in some parts of the city. Buyers and sellers are mainly Blacks and Hispanics, and users tend to be in their late teens and twenties. PCP comes in powder or liquid form, although the liquid form appears to be more popular.

### Club Drugs

The SSU continues to report the availability of methylenedioxymethamphetamine (MDMA), a stimulant with hallucinogenic properties, in many areas of the city. MDMA is often called “ecstasy” or “XTC,” although other substances are often sold as ecstasy. MDMA ED mentions may be stabilizing. Although ED mentions increased from 24 in 1996 to 172 in 2001, the number of mentions totaled 143 in 2002.

The price for a single pill of ecstasy ranges from \$5 to \$30, with the higher prices for pills purchased inside a club or rave. The most common sales unit for ecstasy is the single pill or tablet. Although MDMA sellers are usually White, young, males, of middle or upper class background, this profile is beginning to expand across racial, ethnic, and social class boundaries. MDMA is popular among both males and females. Many of the users are older high school students, college students, or young working professionals. These drugs are particularly popular among suburban White youth who regularly venture into the city for entertainment and fun. There are, however, indications that ecstasy is making greater inroads among non-White users. The SSU reports that street sales to young Black and Puerto Rican youth in various parts of the city continue to increase. Ecstasy remains a drug that is used mainly indoors.

Available as a club drug in New York City, the veterinary anesthetic ketamine produces effects similar to PCP and visual effects similar to LSD. On the street, the drug is called “Special K” and sells for approximately \$20 per dosage unit. 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. The number of ketamine ED mentions has remained

relatively stable for the last few years, numbering 36 in 2002. The SSU has heard reports that ketamine use appears to be on the rise among young gay males.

Another club drug of concern is gamma hydroxybutyrate (GHB). GHB ED mentions in New York City remain very low.

### 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 2 decades.

The cumulative total of 134,555 adult and pediatric AIDS cases reported in New York City through December 2002 represents a rate of more than 1,600 cases per 100,000 New Yorkers. Of New York City’s cumulative 132,537 adult AIDS cases, 55,945 (42 percent) involve heterosexual IDUs. Homosexual males account for 40,221 cases (30 percent).

Among heterosexual IDUs who have contracted AIDS in New York City, 74 percent are male and 26 percent are female. About 44 percent of these individuals are age 30–39. Blacks continue to be the modal group, accounting for 47 percent, followed by Hispanics (38 percent) and Whites (14 percent). Among female IDUs alone, Black women remain the majority (53 percent), followed by Hispanic women (34 percent) and White women (13 percent). Female IDUs are also younger than their male counterparts: 64 percent are age 39 or younger, compared with 51 percent of the males.

Of the 2,018 pediatric AIDS cases (children age 12 or younger at time of diagnosis), 47 percent involve mothers who have injected drugs. An additional 16 percent involve mothers who were sex partners of IDUs. Thus, at least 63 percent of the children with AIDS have parents who are in some way involved with injection drug use.

Overall, reports show that 81,245 New Yorkers have died of AIDS, representing 60 percent of all those who have contracted the disease.

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**Exhibit 1. Semiannual Cocaine Trends for Selected Indicator Data in New York City: 1995—First Half of 2003**

Year	Semiannual/ Annual Periods	Deaths Involving Cocaine <sup>1</sup>	Cocaine ED Mentions <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	908	9,915	8,371	40,846	1,059
	2H		9,808	7,836		
	Total		19,715	16,207		
1996	1H	659	11,070	8,561	38,813	1,005
	2H		10,522	8,817		
	Total		21,592	17,378		
1997	1H	501	10,233	9,048	35,431	864
	2H		9,969	8,401		
	Total		20,202	17,449		
1998	1H	438	9,989	8,999	35,577	742
	2H		9,560	8,573		
	Total		19,549	17,572		
1999	1H	394	7,386	8,346	31,781	626
	2H		7,413	7,567		
	Total		14,799	15,913		
2000	1H	492	6,883	7,337	31,919	490
	2H		7,367	6,722		
	Total		14,250	14,059		
2001	1H		7,449	7,343	23,498	438
	2H		6,450	7,032		
	Total		13,898	14,375		
2002	1H		6,679	7,736	9,334	
	2H		7,282	7,872		
	Total		13,961	15,608		
2003	1H			8,141		

SOURCES: <sup>1</sup>DAWN, OAS, SAMHSA, including New York City, Long Island, and Putnam County through 1995 and New York City only from 1996 through 2002

<sup>2</sup>DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties

<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

**Exhibit 2. 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: First Half of 2003**

Demographic Characteristic	Total (N=8,141)	Smoke Crack (n=4,968)	Use Cocaine Intranasally (n=2,865)
Gender			
Male	67	62	76
Female	33	38	24
Age at Admission			
25 and younger	7	5	11
26–35	25	24	27
36 and older	68	71	62
(Average age in years)	(38.4)	(38.9)	(37.5)
Race			
Black	57	66	43
Hispanic	28	22	36
White	14	11	19
No Source of Income <sup>4</sup>	36	40	29
Some Criminal Justice Status	45	44	48
Readmissions	75	78	70
Age of First Use			
14 and younger	6	5	8
15–19	29	24	36
20–29	44	48	39
30 and older	21	24	17
Secondary Drug of Abuse			
Alcohol	40	40	39
Marijuana	21	19	24
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 OASAS.

<sup>3</sup>Nonfunded programs receive funding through sources other than OASAS.

<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 3. Semiannual Heroin Trends for Selected Indicator Data in New York City: 1995–First Half of 2003**

Year	Semiannual/ Annual Period	Deaths Involving Heroin <sup>1</sup>	Heroin/Morphine ED Mentions <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	193	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		10,397	22,514	13,686	(61.4)
2003	1H			11,442		

SOURCES: <sup>1</sup>DAWN, OAS, SAMHSA, including New York City, Long Island, and Putnam County through 1995 and New York City only from 1996 through 2002. (Prior to 1996, the data included heroin/morphine deaths as well as opiates not specified by type. Beginning with 1996, the data include only heroin/morphine deaths.)

<sup>2</sup>DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties

<sup>3</sup>New York State OASAS-funded and nonfunded treatment admissions

<sup>4</sup>New York City Police Department

<sup>5</sup>U.S. Drug Enforcement Administration

**Exhibit 4. 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: First Half of 2003**

Demographic Characteristic	Total (N=11,442)	Use Heroin Intranasally (n=6,750)	Inject Heroin (n=4,256)
Gender			
Male	75	75	74
Female	25	25	26
Age at Admission			
25 and younger	7	5	10
26–35	24	24	25
36 and older	69	71	65
(Average age in years)	(39.7)	(40.0)	(39.3)
Race			
Black	26	32	17
Hispanic	53	55	50
White	19	12	31
No Source of Income <sup>4</sup>	26	26	24
Some Criminal Justice Status	34	39	26
Readmissions	88	87	90
Age of First Use			
14 and younger	13	11	16
15–19	35	32	41
20–29	35	36	33
30 and older	17	21	11
Secondary Drug of Abuse			
Alcohol	12	13	11
Marijuana	8	9	5
Cocaine	36	33	43

<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 OASAS.

<sup>3</sup>Nonfunded programs receive funding through sources other than OASAS.

<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 5. Semiannual Marijuana Trends for Selected Indicator Data in New York City: 1995–First Half of 2003**

Year	Semiannual/ Annual Period	Marijuana Emergency Department Mentions <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	3,501	13,270	
2002	1H	1,827	7,512	22,969
	2H	2,097	6,798	
	Total	3,923	14,310	
2003	1H		6,808	

SOURCES: <sup>1</sup>DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties  
<sup>2</sup>New York State OASAS-funded and nonfunded treatment admissions  
<sup>3</sup>New York City Police Department

**Exhibit 6. 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: First Half of 2003**

Demographic Characteristic	Total (N=6,808)
Gender	
Male	79
Female	21
Age at Admission	
20 and younger	34
21–25	24
26–35	26
36 and older	16
(Average age in years)	(26.0)
Race	
Black	54
Hispanic	35
White	9
No Source of Income <sup>4</sup>	24
Some Criminal Justice Status	66
Readmissions	53
Age of First Use	
14 and younger	51
15–19	40
20–29	7
30 and older	2
Secondary Drug of Abuse	
Alcohol	39
Cocaine	13

<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 OASAS.

<sup>3</sup>Nonfunded programs receive funding through sources other than OASAS.

<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 Mark R. Bencivengo, M.A.<sup>1</sup>

## ABSTRACT

The estimated rate of 612 drug abuse episodes per 100,000 population in hospital EDs in Philadelphia far exceeded the national estimated rate (261) in 2002. The estimated rate of drug mentions (1,148 per 100,000 population) was also the highest in Philadelphia in 2002. Cocaine was the most mentioned drug in Philadelphia EDs, at a rate of 274 per 100,000 population in 2002. In the first half of 2003, 80 percent of male cocaine treatment admissions and 88 percent of female cocaine treatment admissions were crack smokers. The average number of drugs detected in decedents by the medical examiner increased each half-year from the first half of 1998 through the first half of 2003, with the exception of the first half of 2002. For only the second time since the second half of 1999, cocaine detections in decedents exceeded heroin/morphine detections in decedents in the first half of 2003. The estimated rates of marijuana and PCP ED mentions in Philadelphia were the highest and second highest, respectively, among CEWG cities in 2002. PCP has been the fifth most frequently detected drug in decedents over the last 9½ years.

## 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 represents 12.4 percent of the State's population and is a 7-percent increase from the 1990 census count. The 2000 Philadelphia population was 45.0 percent White, 43.2 percent African-American, 4.5 percent Asian, 0.3 percent American Indian and Alaska Native, 4.8 percent other race, and 2.2 percent two or more races. Hispanics (of various races) accounted for an estimated 8.5 percent of the population, and persons age 18 and older accounted for 74.7 percent.

### Data Sources

This report focuses primarily on the city/county of Philadelphia and includes data from the sources shown below. For the purposes of this report, fiscal

year (FY) refers to a year starting July 1 and ending the following June 30.

- **Emergency department (ED) drug mentions data** were derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for the period January 1, 1995, through December 31, 2002.
- **Treatment admissions data** for programs in Philadelphia County were provided by the Pennsylvania Department of Health, Client Information System, for January 1, 1997, through June 30, 2003. Data for the first half of 2003 are preliminary and subject to revision because of the treatment reporting schedule, which results in frequent delays between a treatment admission and the reporting of that event.
- **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 June 30, 2003. (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 might be considered a light or moderate amount of drugs and persons whose toxicology reports showed a high level of drugs in their systems.)
- **Arrestee urinalysis data** on booked adult male arrestees were derived from Arrestee Drug Abuse Monitoring (ADAM) program reports for 2001 and 2002.
- **Heroin purity and price data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), through mid-2002.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the Philadelphia Department of Public Health's AIDS Activities Coordinating

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Office on AIDS cases from November 1, 1981, to June 30, 2003.

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

Preliminary DAWN data for 2002 show the average number of drug mentions per hospital ED episode remained stable, at 1.87 drugs per episode (exhibit 1). Comparing ED rates per 100,000 population among CEWG cities in 2002, Philadelphia ranked first for drug abuse episodes (612), drugs mentioned (1,148), and marijuana (150), second for cocaine (274) and phencyclidine (PCP) (25), third for alcohol-in-combination (219), and eighth for heroin (109). Among major substances of abuse, 2002 DAWN rates increased significantly from 2000 to 2002 for marijuana and PCP. Significant declines were exhibited for lysergic acid diethylamide (LSD) and gamma hydroxybutyrate (GHB).

In the first half of 2003, the average number of drugs detected in decedents by the ME (3.22) exceeded the previous 8-year average (1995 through 2002) of 2.29 drugs per case (exhibit 2). The number of mortality cases with positive toxicology reports in the first half of 2003 (406) was the highest on record for a half-year period, going back to at least 1970. Of the 406 deaths in the first half of 2003, adverse reactions to drugs accounted for 32.0 percent, overdose for 7.9 percent, violence for 25.9 percent, and “other” causes for 34.2 percent. From 1994 through 2002, adverse reaction to drugs (as the identified cause of death) accounted for 56.6 percent of the deaths, overdose for 3.3 percent, and violence for 19.7 percent; 20.2 percent were attributable to other causes.

Although White males accounted for the largest proportion of drug-positive decedents in 12 of the last 13 half-year periods through December 2002, accounting for 34 (44 percent of all cases) African-American males outnumbered White males in the first half of 2003 (143 to 128). Whites, as a group, constituted the plurality of death cases from 1995 through 2002, ranging from 45 to 54 percent, but African-Americans exceeded Whites in the first half of 2003 (189 to 184). Males accounted for 76 percent of all deaths with positive toxicology reports in 1999, 74 percent in 2000, 76 percent in 2001, 77 percent in 2002, and

73 percent in the first half of 2003. In the first half of 2003, males accounted for 76 percent of drug-positive deaths among African-Americans, 70 percent among Whites, 75 percent among Hispanics, and 100 percent of the Asian decedents. Among females, Whites accounted for the largest number of drug deaths from 1998 through 2002 (50 percent), followed by African-Americans (42 percent). Hispanics accounted for 7 percent and Asians for 1 percent of all female deaths. Of all female deaths in the first half of 2003, Whites accounted for 51.4 percent, African-Americans for 42.2 percent, and Hispanics for 6.4 percent.

In the 2001 ADAM study, adult male booked arrestees in Philadelphia ranked fifth highest in the 33-city panel in positive urinalysis results for multiple drugs and fourth highest with respect to the NIDA-5 drugs (cocaine, opiates, marijuana, methamphetamine, and PCP). In the 2002 ADAM study, adult males in Philadelphia tied for first in the 36-city panel in positive urinalysis results for multiple drugs (any of 10) and remained fourth highest with respect to the NIDA-5 drugs. The latter ranking is particularly remarkable considering the lack of methamphetamine cases in this city. In the 2002 ADAM measurement of heavy drug use of a NIDA-5 drug, Philadelphia males ranked third (51.2 percent within the past 30 days) among 36 cities (median=37.1 percent). (Heavy drug use was defined as 13 or more days of self-reported consumption within a 30-day period in the year before the interview.) In the measurement “at risk for dependence,” Philadelphia males ranked second (48.9 percent) among 36 cities (median=38.3 percent).

The Pennsylvania Client Information System is limited to the identification of a maximum of three substances as drugs of abuse at treatment intake. The highest average number of drugs of abuse identified at admission to treatment occurred in the first half of 1999 (2.06). The average was 1.96 drugs of abuse in the second half of 2001, 1.45 in the first half of 2002, 1.44 in the second half of 2002, and 1.83 in the first half of 2003.

#### Cocaine/Crack

Cocaine/crack remains the major drug of abuse in Philadelphia. The estimated rates of cocaine/crack ED mentions in the Philadelphia primary metropolitan statistical area (PMSA) were 127 per 100,000 population in the first half of 2001, 125 in the second half of 2001, and 137 in each half of 2002. The only demographic group that recently experienced a statistically significant rate change between 2001 and 2002 was the 55-and-older age group, whose rate increased by 33.7 per-

cent, from 20 to 27. Overall, rates in 2002 continued to be higher among males (368) than females (181) and, by age group, among persons age 26–29 (728).

ME data show that cocaine was present in 7 percent fewer cases in FY 2003 than in FY 2002 (exhibit 2). As a result of this decrease, the presence of cocaine in total drug-positive toxicology reports fell to 38 percent of all cases in the first half of 2003. Cocaine's presence in decedents had been stable between 44.6 and 47.2 percent from 1999 through 2002. Cocaine was detected in 2,787 decedents from January 1994 through June 2003, more than any other drug appearing in the toxicology reports.

Another drug(s) was found in 84 percent of all ME cocaine-positive cases in the second half of 2001, 84 percent in the first half of 2002, 82 percent in the second half of 2002, and 85 percent in the first half of 2003. Heroin/morphine was present in 37 percent of cocaine-positive toxicology reports in both the second half of 2001 and the first half of 2002. In the second half of 2002, heroin/morphine was present in 39 percent of cocaine-positive toxicology reports, compared with 32 percent in the first half of 2003. Cocaine in combination with alcohol remains a significant finding in cocaine-positive toxicology reports. In 2000, 2001, and 2002, alcohol was present in 32, 25, and 29 percent of cases in which cocaine was also detected. The cocaine/alcohol combination was present in 52 percent of the cocaine-positive toxicology reports. ME toxicology unit staff view alcohol as a particularly dangerous substance when it is used in combination with other substances.

As can be deduced from exhibit 3, the preliminary treatment data for the first half of 2003 show that cocaine, as a primary drug, accounted for 29.8 percent of all treatment admissions, up from 25.8 percent in 2001. In the first half of 2003, cocaine was mentioned by an additional 8.8 percent as a secondary drug and by 3.1 percent as a tertiary drug. Cocaine treatment admissions peaked in 1991, at 63 percent as the primary drug mentioned at admission to treatment.

In the first half of 2003, males accounted for 60.7 percent of primary cocaine drug treatment admissions (exhibit 4). During this time period, African-Americans accounted for more than 80 percent of primary cocaine treatment admissions, followed by Whites (16 percent), Hispanics (2 percent), and Asians and others (1 percent). Among primary cocaine treatment admissions in the first half of 2003, the average number of drugs of abuse noted upon entering treatment was 1.87.

Since 1999, an average of 83 percent of the primary cocaine admissions reported smoking the drug, 14 percent reported intranasal use, less than 2 percent reported injecting, and 1 percent reported administering the drug through other/unknown routes (exhibit 4). Since the first half of 1990, at least 80 percent of cocaine treatment admissions have reported smoking the drug. Of all male cocaine admissions in the first half of 2003, 80 percent reported smoking the drug; the comparable figure for females was 88 percent.

In the Philadelphia ADAM site in 2001 and 2002, 21.9 and 22.4 percent, respectively, of adult male arrestees reported using crack during the past 30 days. This was the fourth and fifth highest percentage among CEWG sites included in ADAM. In the same time periods, 11.4 and 10.6 percent, respectively, of the adult male arrestees reported using powder cocaine during the past 30 days. This was the sixth highest level among CEWG sites in each year.

The predominant form of crack sold in Philadelphia is "rock," which costs \$5. The \$5 rock ranged in size from 6 to 9 millimeters from 1996 until 2002. Since then the size of the \$5 rock was reduced to 5–6 millimeters. Treys (\$3 rocks) ranged in size from 3 to 5 millimeters since 1996, but they were reduced to 3 to 4 millimeters since the latter half of 2002. 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 since the spring of 2003 estimated that about 62 percent of powder cocaine buys are for intranasal use, 19 percent are injected straight, and 19 percent are injected in a "speedball." These estimates were very similar to the focus group responses throughout 2002.

Crack users continue to report frequent use in combination with 40-ounce bottles of malt liquor, beer, wine, or other drugs, including alprazolam (Xanax), marijuana, or heroin. Powder cocaine, cigarettes, and methamphetamine were less frequently mentioned as drugs used with crack.

### Heroin/Morphine

According to preliminary DMP data, the average street-level purity of heroin in Philadelphia was 66.3 percent in 2002. The average purity was found to be 73 percent in 2001, the highest of all cities in the program for the prior 5 years, with an average price per milligram pure of \$0.40, the fourth least expensive at that time. In 2001, the average national purity was 34 percent, and the average price per milligram pure was \$1.30.

The estimated rates of heroin ED mentions in the Philadelphia PMSA were 56 per 100,000 population in the first half of 2001, 63 in the second half of 2001, and 54 in each half of 2002. The only demographic group that recently experienced a statistically significant rate change was the 26–29 age group, whose rate increased by 129.7 percent from 2000 (rate=184) to 2002 (rate=423). Overall in the second half of 2002, rates continued to be higher among males (76) than females (33) and, by age group, among persons age 26–29 (215).

Heroin/morphine was detected in 2,725 decedents from January 1994 through June 2003, the second most commonly detected drug in decedents. For the 4-year period 1999 through 2002, positive heroin/morphine toxicology reports occurred in 47 percent of all deaths with the presence of drugs. In the first half of 2003, heroin/morphine was detected in only 27 percent of all decedents with drug-positive toxicology reports.

From 2000 through 2002, heroin/morphine alone was identified in 14, 11, and 10 percent of the respective heroin/morphine toxicology reports. In the first half of 2003, heroin/morphine alone was identified in 7 percent of the heroin/morphine toxicology reports. The combination of heroin/morphine and cocaine was detected in 20, 19, and 17 percent of all decedents, respectively, from 2000 through 2002, but in only 10 percent of drug-positive toxicology reports in the first half of 2003.

In the first half of 2003, primary heroin treatment admissions ranked third behind cocaine and alcohol (exhibit 3). Heroin admissions accounted for 22 percent of all admissions in 2002 and in the first half of 2003. During the first half of 2003, 65 percent of all treatment admissions for heroin, illegal methadone, and other opiates were male (exhibit 5); 64 percent were White, 26 percent were African-American, 8 percent were Hispanic, and 1 percent were Asian/other. Individuals who identified heroin as the primary drug of abuse in the first half of 2003 used an average of 1.79 drugs.

As depicted in exhibit 5, the preferred routes of administration for heroin, illegal methadone, and other opiates have been relatively stable among treatment admissions. Within the “swallowed” route, the increasing numbers through 2002 reveal that users of pharmaceutically produced synthetic opiates are becoming more common among treatment admissions.

Heroin treatment admissions data from the second half of 1997 through the first half of 2003 revealed that there is no significant difference in the proportion of heroin

injectors entering treatment with respect to whether or not the admission was the first time. This finding indicates that no matter which route of administration was initially utilized—usually intranasal for new users of heroin—the conversion to injecting occurred prior to the first treatment experience.

In 2001 and 2002, 13.2 and 15.9 percent, respectively, of adult male arrestees in the Philadelphia ADAM study tested positive for opiates. These were the second and fourth highest percentages among CEWG sites included in ADAM in the respective years.

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; \$5 and \$20 bags reportedly remain available. Focus groups in autumn 2000 and spring 2001 indicated that new heroin users begin use in their mid-teens; the autumn 2001, spring 2002, and autumn 2002 groups stated that new users begin use in their late teens. Spring and autumn 2003 focus group participants reported that the average age of new users is 20. All groups since autumn 2000 reported that the average heroin user injects the drug four or five times per day.

In October 2003 the authors conducted a survey of 72 drug users who utilize the sterile syringe exchange program to determine their drug-taking and other behaviors on the day before the survey. Almost 63 percent of the participants used drugs 2, 3, or 4 times, but because many had numerous drug-taking episodes, the average was 4.3 episodes per day. As might be expected from a sample of syringe exchangers, the most common route of administration of all drugs taken was injection (91.6 percent). However, a variety of drugs not commonly injected was also used by the participants, resulting in 6.5 percent of drugs being smoked (primarily crack and some marijuana), and 1.9 percent being swallowed (alcohol and alprazolam). The participants averaged 17.5 hours awake. The average number of meals per participant was 1.7, but the average number of snacks was 2.0.

## **Narcotic Analgesics**

### *Oxycodone*

The nonmedical use of oxycodone products, including OxyContin, Percocet/Percodan, Roxicet, and Tylox, continues to be reported by individuals in treatment. Preliminary rates per 100,000 population of DAWN ED mentions of narcotic analgesics/combinations were 55, 67, and 81, respectively, for the years 2000 through 2002, reflecting a statistically significant in-

crease of 47.4 percent from 2000 to 2002 (exhibit 1) and an increase of 21 percent from 2001 to 2002.

Oxycodone was detected in 270 decedents from January 1994 through June 2003, the ninth most frequently detected drug during that time period. Detections of oxycodone have been rapidly increasing since 2000 (exhibit 2). Focus group participants since spring 2002 reported the spread of oxycodone use to all racial/ethnic groups, with an age range of mid-teens to 40, with the largest user group being people in their twenties.

### *Hydrocodone*

Hydrocodone mentions in mortality cases have also increased. There were 16 positive toxicology ME reports for hydrocodone from January 1994 through December 1996. In the subsequent 3 years, January 1997 through December 1999, there were 36 positive toxicology reports for hydrocodone, followed by 96 positive toxicology reports for the drug from January 2000 through December 2002. In the first half of 2003, there were 20 positive toxicology reports for hydrocodone.

### **Marijuana**

The estimated rates of marijuana ED mentions in the Philadelphia PMSA were 64 per 100,000 population in the first half of 2001, 58 in the second half of 2001, 77 in the first half of 2002, and 73 in the second half of 2002. The demographic groups that showed statistically significant rate changes include females, whose rate of mentions increased by 60.5 percent from 2000 (62) to 2002 (100), and all age groups from age 35 and older. The age group having the largest increase was the 55-and-older group, whose rate of mentions increased 140.8 percent from 2000 (3) to 2002 (8). Overall in 2002, rates continued to be higher among males (199) than females (100) and, by age group, the highest rate occurred among persons age 18–19 (518).

The proportion of those citing marijuana as the primary drug of abuse upon entering treatment increased from 9 percent in 1997 to 16.9 percent in the first half of 2003, when they totaled 590 (exhibit 3). Among all admissions in the first half of 2003, marijuana was mentioned by an additional 11 percent as a secondary drug and by 8 percent as a tertiary drug. Among primary marijuana admissions, males accounted for 78 percent; African-Americans accounted for 61.5 percent, Whites for 22.4 percent, Hispanics for 13.2 percent, and Asians and others for 2.9 percent. Among primary marijuana treatment admissions in the first half of 2003, the average number of drugs of abuse

noted upon entering treatment was 1.68.

The ADAM data on adult male arrestees for 2001 and 2002 indicated that 49.8 and 52.2 percent, respectively, reported marijuana use within the past 30 days. These were the third and second highest percentages among CEWG/ADAM sites.

Focus group participants throughout 2003 reported the increasing use of blunts. These groups and outreach workers continued to report that marijuana use is widespread throughout Philadelphia.

In autumn 2001 focus group sessions, participants mentioned for the first time the availability and use of commercially marketed cigar tobacco leaves, known as “blunt wraps,” for wrapping marijuana (and other additives) into a blunt. This product is attractive to users because it is available in several different flavors and eliminates the effort of cutting off the ends of a cigar, splitting it open lengthwise, and emptying the contents. Businesses that are open late into the evening have become increasingly popular as outlets for blunt wraps, with dwindling numbers of individuals reporting acquisition of wraps through Internet sources.

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) and remains a popular combination among users in 2003. Blunts laced with crack (called “Turbo”) are still common, but less so than the marijuana/PCP combination. Blunt users commonly ingest beer, wine coolers, whiskey, alprazolam, or diazepam along with the blunt. Less commonly, blunt smokers also use powder cocaine, vodka, barbiturates, clonazepam, oxycodone, cough syrup, and/or methamphetamine.

### **Phencyclidine (PCP)**

PCP began gaining popularity as an additive to blunts in 1994 and its use has increased since 2000. Users describe its effects as making them hallucinate and feel “invincible,” “crazy,” “numb,” or “violent.” Preliminary estimated rates per 100,000 population of DAWN ED mentions of PCP were 12, 17, and 25, respectively, for the years 2000 through 2002, reflecting a statistically significant increase of 103.4 percent during that time period (exhibit 1). Demographic groups that showed statistically significant changes were females, whose rate of mentions increased by 221.8 percent from 2000 (5) to 2002 (16), and all age groups from age 12 through 55-and-older. Overall in 2002, rates continued to be higher among males (35) than females (16). The highest rate in 2000 occurred

among 18–19-year-olds (129).

PCP was detected in 388 decedents from January 1994 through June 2003, the fifth most frequently detected drug during that time period, behind cocaine, heroin/morphine, alcohol-in-combination, and diazepam.

In the first half of 2003, PCP was mentioned as a primary, secondary, or tertiary drug by 3.8 percent of all treatment admissions. The average number of drugs of abuse mentioned by primary PCP treatment admissions was 1.97. PCP has become easier to obtain than ever. It is more commonly available on mint leaves for use in lacing blunts or for rolling and smoking. Additionally, PCP in liquid form is available and is used by applying the drug to cigarettes. This method is referred to as “sherms” or “dip sticks.”

### **Benzodiazepines**

Benzodiazepines, particularly alprazolam (Xanax) and diazepam (Valium), continue to be used in combination with other drugs. DAWN ED rates per 100,000 population in 2000 through 2002 were 84, 95, and 95, respectively (exhibit 1). Diazepam, having been detected by the ME in 464 decedents from January 1994 through June 2003, ranks fourth among drugs present in mortality cases in Philadelphia. While users new to treatment report that diazepam has become less popular in recent years, alprazolam use has increased. Alprazolam was the thirteenth most frequently detected drug among decedents by the Philadelphia ME ( $n=188$ ) from January 1994 through June 2003.

The preliminary treatment admission reports for the first half of 2003 show benzodiazepines as primary drugs of abuse in 26 cases (exhibit 3); however, these drugs were reported as secondary drugs of abuse in 81 additional cases and as tertiary drugs of abuse in 73 more cases. Those who reported using benzodiazepines as their primary drug of abuse used an average of 2.15 drugs. Benzodiazepine abuse was 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.

### **Other Prescription Drugs**

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 increased

from FY 2001 to FY 2003 for alprazolam (Xanax), diazepam (Valium), fluoxetine (Prozac), olanzapine (Zyprexa), and oxycodone (OxyContin, Percocet, Roxicet, Tylox). Decreased detections occurred for hydrocodone (Vicodin), oxazepam (Serax), and propoxyphene (Darvon).

### **Methamphetamine/Amphetamines**

Methamphetamine and amphetamines remain a relatively minor problem in Philadelphia. The DAWN ED rates per 100,000 population for methamphetamine in Philadelphia were 1 each year from 1998 through 2002. DAWN ED amphetamine rates during the same 5-year period were 8, 9, 10, 9, and 7 respectively. There were 78 deaths with the presence of methamphetamine from January 1994 through June 2003 and 68 deaths with the presence of amphetamine during that same 9½-year period.

The numbers of annual treatment admissions for methamphetamine/amphetamines as the primary drug of abuse in 1998–2002 were 31, 33, 27, 83, and 67, respectively, with an additional 15 admissions in the first half of 2003 (exhibit 3). Methamphetamine/amphetamines are rarely identified as a secondary or tertiary drug of choice among treatment admissions in Philadelphia. In the 2002 ADAM study, no adult male booked arrestees were found to be positive for methamphetamine through urinalysis, and only 1.2 percent of booked arrestees reported methamphetamine use within the past 30 days. This was the fifth lowest percentage among CEWG/ADAM sites. Focus group members continued to report that methamphetamine is still difficult to obtain, is not sold outdoors, and requires a connection, but that use has increased since 2001.

### **Club Drugs**

DAWN ED rates per 100,000 population from 1998 through 2002 for methylenedioxymethamphetamine (MDMA) were 1, 2, 3, 5, and 4, respectively. The 2002 rate tied for fourth highest among the 21 cities in the DAWN study. MDMA was present in 6 mortality cases in 1999 (the first year this drug was detected by the ME), then in 8 cases in 2000, 14 cases in 2001, 5 cases in 2002, and 2 cases in the first half of 2003. Focus groups held since spring 2001 have reported that MDMA is used in combination with marijuana and LSD, which helps describe its use among club goers. 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.

Methylenedioxyamphetamine (MDA) was first detected by the Philadelphia ME in the second half of 1999. There have been 22 positive toxicology reports for MDA since then, including 3 cases in the first half of 2003.

Hospital ED mentions of ketamine were extremely rare in the Philadelphia area. The DAWN report showed either zero mentions for recent periods or an indication that the data were suppressed because the estimate had a relative standard error of greater than 50 percent. Ketamine was first detected in decedents in Philadelphia in 1996; it was detected in four decedents in 2000, four decedents in 2001, two decedents in 2002, and one decedent in the first half of 2003. Focus groups since autumn 2002 reported that ketamine is used in nightclubs but is not widely available; the drug usually sells for \$10 per tablet. Since spring 2003, focus groups reported that ketamine also comes in powder form and is used intranasally, primarily by White males and White females up to age 30. Ketamine was reportedly difficult to obtain.

GHB cases were mentioned in DAWN ED data in only 4 of the last 10 half-year periods; the data were suppressed during the other periods. Most focus groups composed of users new to treatment in the last 3 years have no familiarity with GHB. Participants

since spring 2003 were only aware of its use “mostly in clubs and bars” and “predominantly by males.” The Philadelphia ME does not test for GHB because it is produced naturally as the body decomposes.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

As of June 30, 2003, Philadelphia recorded 16,308 cumulative AIDS cases among adults (exhibit 6). Among those cases, 5,854 involved injection drug users (IDUs) or needle-sharers. Another 853 were in the dual exposure category of IDUs who were also men who had sex with other men (MSM).

The proportion of cases reported in FY 2003 with heterosexual contact as a risk factor continued to exceed the historical average. Heterosexual contact was the identified exposure category in more than one-sixth of all AIDS cases reported through June 30, 2003. In FY 2003, heterosexual contact accounted for the plurality of cases (31.6 percent) for the second consecutive time.

AIDS cases involving needle-sharing varied considerably within race/ethnicity categories. Among 53 percent of Hispanics, 39 percent of African-Americans, and 22 percent of Whites, needle-sharing was the identified exposure category.

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**Exhibit 1. Rates of ED Mentions per 100,000 Population in Philadelphia for Selected Drugs: 1995–2002<sup>1</sup>**

Major Drugs of Abuse	Year								Percent Change	
	1995	1996	1997	1998	1999	2000	2001	2002	1995, 2002	2000, 2002
Cocaine	208	224	239	275	260	216	252	274		
Alcohol-in-Combination	150	147	160	181	184	171	205	219	45.5	
Marijuana	67	74	97	112	114	101	122	<b>150<sup>2</sup></b>	124.2	47.9
Heroin/Morphine	84	83	79	73	85	96	119	109		
Benzodiazepines	69	71	90	88	82	84	95	95	38.4	
Narcotic Analgesics/Combinations	31	33	48	49	47	55	67	81	164.0	47.4
Antidepressants	22	27	29	29	28	33	42	42	90.2	
PCP/Combinations	13	8	10	12	12	12	17	25	93.9	103.4
LSD	5	3	2	2	3	2	2	1	-87.2	-69.0
Methamphetamine	2	1	2	1	1	1	1	1	-44.5	
Total Drug Mentions	807	837	914	962	953	912	1,071	<b>1,148<sup>2</sup></b>	42.3	25.9
Total Drug Episodes	448	467	496	526	510	481	573	<b>612<sup>2</sup></b>	36.8	27.2
Average Number of Drug Mentions Per Episode	1.80	1.79	1.84	1.83	1.87	1.89	1.87	1.87		

<sup>1</sup>Estimates for 2002 are preliminary.

<sup>2</sup>Entries in BOLD in the column for 2002 indicate the highest rates in the national sample.

SOURCE: DAN, OAS, SAMHSA

**Exhibit 2. Annual Mortality Cases in Philadelphia with the Presence of the 10 Most Frequently Detected Drugs by the Medical Examiner: 1995–June 2003**

ME-Identified Drugs	Year									
	1995	1996	1997	1998	1999	2000	2001	2002	1H 2003	Total
Cocaine	336	277	304	218	238	321	300	270	155	2,419
Heroin/Morphine	318	290	336	249	236	332	316	275	111	2,463
Alcohol	254	182	214	157	179	197	185	153	133	1,654
Diazepam	3	35	58	39	67	46	56	28	33	365
Phencyclidine (PCP)	44	29	46	19	35	48	45	51	25	342
Propoxyphene	30	27	32	21	22	40	43	31	26	272
Methadone	12	26	24	10	36	36	46	55	34	279
Codeine	39	19	20	3	15	19	45	57	67	284
Oxycodone	2	1	14	29	17	49	53	68	33	266
Diphenhydramine	13	5	4	9	25	33	53	42	65	249
Total Deaths with the Presence of Drugs (Toxicology Reports)	632	565	607	534	533	680	661	593	406	5,211
Total Drugs Mentioned	1,245	1,121	1,282	1,039	1,232	1,637	1,857	1,589	1,308	12,310
Average Number of Drugs Per Death	1.97	1.98	2.11	1.95	2.31	2.41	2.81	2.68	3.22	2.36

SOURCE: Philadelphia Medical Examiner's Office

**Exhibit 3. Treatment Admissions by Primary Drug of Abuse in Philadelphia: 1997–June 2003**

Primary Drug	1997	1998	1999	2000	2001	2002	1H 2003 <sup>1</sup>
Cocaine	2,492	1,942	2,232	2,497	2,996	3,649	1,038
Alcohol	1,648	1,477	1,943	1,826	2,366	3,425	891
Heroin	1,581	872	2,272	2,041	4,279	2,679	766
Other Opiates	51	48	46	73	92	187	83
Marijuana	592	791	862	910	1,428	2,025	590
PCP	36	32	49	43	74	188	39
Other Hallucinogens	14	9	9	7	12	12	2
Methamphetamine/ Amphetamines	27	31	33	27	83	67	15
Benzodiazepines	26	32	46	37	89	66	26
Other Tranquilizers	11	6	4	8	1	3	0
Barbiturates	8	13	8	3	8	23	2
Other Sedatives/Hypnotics	12	13	18	16	36	19	13
Inhalants	0	2	0	4	1	0	0
Over-the-Counter	4	7	24	5	2	2	1
Other (Not Listed)	53	17	1	60	154	111	22
<b>Total</b>	<b>6,555</b>	<b>5,292</b>	<b>7,547</b>	<b>7,557</b>	<b>11,621</b>	<b>12,456</b>	<b>3,488</b>

<sup>1</sup>Subject to revision.

SOURCE: Pennsylvania Department of Health, Client Information System

**Exhibit 4. Cocaine Treatment Admissions in Philadelphia by Route of Administration and Gender: 1999–June 2003**

Route of Administration and Gender	1999		2000		2001		2002		1H 2003 <sup>1</sup>	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Smoked										
Male	997	(44.7)	1,112	(44.5)	1,377	(46.0)	1,802	(49.4)	501	(48.3)
Female	862	(38.6)	1,002	(40.1)	1,039	(34.7)	1,212	(33.2)	357	(34.4)
Intranasal										
Male	172	(7.7)	198	(7.9)	371	(12.4)	384	(10.5)	117	(11.3)
Female	120	(5.4)	104	(4.2)	140	(4.7)	139	(3.8)	43	(4.1)
Injected										
Male	46	(2.1)	38	(1.5)	30	(1.0)	28	(0.8)	10	(1.0)
Female	13	(0.6)	12	(0.5)	14	(0.5)	8	(0.2)	4	(0.4)
Other/Unknown										
Male	11	(0.5)	16	(0.6)	18	(0.6)	71	(1.9)	2	(0.2)
Female	11	(0.5)	15	(0.6)	7	(0.2)	5	(0.1)	4	(0.4)
<b>Total Male</b>	<b>1,226</b>	<b>(54.9)</b>	<b>1,364</b>	<b>(54.6)</b>	<b>1,796</b>	<b>(59.9)</b>	<b>2,285</b>	<b>(62.6)</b>	<b>630</b>	<b>(60.7)</b>
<b>Total Female</b>	<b>1,006</b>	<b>(45.1)</b>	<b>1,133</b>	<b>(45.4)</b>	<b>1,200</b>	<b>(40.1)</b>	<b>1,364</b>	<b>(37.4)</b>	<b>408</b>	<b>(39.3)</b>
<b>Total</b>	<b>2,232</b>		<b>2,497</b>		<b>2,996</b>		<b>3,649</b>		<b>1,038</b>	

<sup>1</sup>Subject to revision.

SOURCE: Pennsylvania Department of Health, Client Information System



**Exhibit 5. Heroin, Illegal Methadone, and Other Opiate Treatment Admissions in Philadelphia by Route of Administration and Gender: 1999–June 2003**

Route of Administration and Gender	1999		2000		2001		2002		1H 2003 <sup>1</sup>	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Injected										
Male	1,101	(47.5)	870	(41.2)	1,917	(43.9)	1,219	(42.5)	309	(36.4)
Female	576	(24.8)	408	(19.3)	805	(18.4)	541	(18.9)	151	(17.8)
Intranasal										
Male	316	(13.6)	411	(19.4)	733	(16.8)	564	(19.7)	180	(21.2)
Female	215	(9.3)	266	(12.6)	577	(13.2)	260	(9.1)	105	(12.4)
Swallowed										
Male	32	(1.4)	45	(2.1)	99	(2.3)	114	(4.0)	51	(6.0)
Female	19	(0.8)	42	(2.0)	55	(1.3)	66	(2.3)	30	(3.5)
Smoked										
Male	27	(1.2)	37	(1.8)	63	(1.4)	44	(1.5)	10	(1.2)
Female	14	(0.6)	11	(0.5)	40	(0.9)	17	(0.6)	5	(0.6)
Other/Unknown										
Male	12	(0.5)	13	(0.6)	49	(1.1)	32	(1.1)	3	(0.4)
Female	6	(0.3)	11	(0.5)	33	(0.8)	9	(0.3)	5	(0.6)
Total Male	1,488	(64.2)	1,376	(65.1)	2,861	(65.5)	1,973	(68.8)	553	(67.7)
Total Female	830	(35.8)	738	(34.9)	1,510	(34.5)	893	(31.2)	296	(32.3)
<b>Total</b>	<b>2,318</b>		<b>2,114</b>		<b>4,371</b>		<b>2,866</b>		<b>849</b>	

<sup>1</sup>Subject to revision.

SOURCE: Pennsylvania Department of Health, Client Information System

**Exhibit 6. Adult AIDS Cases in Philadelphia by Exposure Category: FY 2003 and Cumulative Totals Through June 30, 2003**

Exposure Category	July 1, 2002, to June 30, 2003		November 1, 1981, to June 30, 2003	
	Number	Percent	Number	Percent
IDU	336	(28.3)	5,854	(35.9)
MSM and IDU	24	(2.0)	853	(5.2)
MSM	250	(21.0)	6,199	(38.0)
Heterosexual Contact	376	(31.6)	2,887	(17.7)
Blood Products	0	(0.0)	74	(0.6)
No Identified Risk Factor	202	(17.0)	441	(2.7)
<b>Total Adult Cases</b>	<b>1,188</b>	<b>(100.0)</b>	<b>16,308</b>	<b>(100.0)</b>

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>

## ABSTRACT

*The availability and demand for amphetamine/methamphetamine has not abated for any persons by age or gender. Other than alcohol, the primary substance of abuse reported to the Arizona Department of Health Services, Division of Behavioral Health Services during FY 2003 was methamphetamine/speed. Cocaine/crack-related deaths and ED mentions declined in Phoenix, while treatment and prices remained stable. Most indicators for heroin trended downward. Black tar and brown powder heroin are readily available at the street level. Projected 2003 methadone and methadone/composition deaths continue to increase. Pain management clinics remain a focus of law enforcement investigations because of the apparent excessive prescribing of controlled substances. Effective September 19, 2003, carisoprodol became a Schedule IV drug. Marijuana ED mentions have steadily increased for the past decade. The Arizona Department of Health Services plans to launch a program to target individuals diagnosed with hepatitis C. Health educators will contact individuals infected with hepatitis C to encourage vaccinations for hepatitis A and B and to stop use of alcohol.*

## INTRODUCTION

### Area Description

“Arizona” is a name that was derived from an Indian word, “Arizonac,” which described southern Arizona during the time of Spanish rule. The word comes from the Tohono O’odham “ali” and “shonak,” which translates as “place of the small spring.” The saw-toothed peaks of the Baboquivari Mountains in southern Arizona provide a natural compass for undocumented immigrants and drug smugglers navigating through the desert into Arizona from Mexico. The Tohono O’odham Nation shares a 75-mile border with Mexico that includes the Baboquivari Trail, a series of winding cow paths snaking 26 miles through the desert from the U.S.-Mexican border to the Tohono O’odham Nation’s capital in Sells. This trail has become the most deadly immigrant crossing in the United States. During fiscal year (FY) 2002, 85 of the 145 immigrant deaths recorded by the U.S. Border

Patrol in Arizona occurred on the Tohono O’odham Reservation. Arizona had more undocumented immigrant deaths in the year than California and Texas combined (111). The flood of undocumented immigrants and the surge in drug smuggling have created a financial and social crisis for the Indian Nation.

The population of the State is 64 percent White, 25 percent Hispanic, 3 percent African-American, 5 percent Native American, 2 percent Asian American, and 2 percent other groups. Since 1990, the Hispanic population has increased by 88 percent statewide. Latinos now total 1.3 million, or the equivalent of the population within the city limits of Phoenix. The population of Maricopa County (Phoenix) is 3.3 million, with 72 percent White, 21 percent Hispanic, 4 percent African-American, 2 percent Asian American, and 1 percent other groups.

### Data Sources

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

- **Drug-induced and drug-related death data** were provided by the Maricopa County Medical Examiner (ME) Office for January 1993–April 2003.
- **Emergency department (ED) drug mentions data** were provided by the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA) for 1995–2002.
- **Drug treatment data** for the State overall were provided by the Arizona Department of Health Services (DHS), Division of Behavioral Health for fiscal year (FY) 2003; treatment admissions of adults and juveniles to the Treatment and Assessment Screening Center (TASC) programs in Phoenix were derived from the Maricopa County Juvenile Probation Program’s “Client Drug Test Results Summary,” September 2003, and the Adult Deferred Prosecution Program, Cumulative Statistical Report, March 1989–September 2003; data on admissions to outpatient detoxification

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treatment at Terros, Inc., were provided by the program for July 2001–June 2003; and data on admissions to detoxification treatment from July 2002 to September 2003 were provided by Community Bridges—East Valley Addiction Council.

- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice, for 2000, 2001, 2002, and the first two quarters of 2003 for males and first three quarters of 2003 for females. Some data were available on juveniles in 2003.
- **Law enforcement data** were provided by the Drug Enforcement Administration (DEA), Phoenix Office, in their report “Trends in Traffic,” third quarter FY 2003; the U.S. Customs Service; and the Arizona High Intensity Drug Trafficking Area (HIDTA) Task Force.
- **Drug price and purity data** were provided by the DEA Phoenix Division Offices, the U.S. Customs Service, Arizona Department of Public Services, Phoenix Police Department, and the Maricopa County Sheriff’s Department. Heroin price and purity data were provided by the DEA’s Domestic Monitor Program (DMP) for 2002.
- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** were provided by the Arizona DHS, Division of Public Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/ STD Services, for June 1981–June 2003.
- **Hepatitis C (HCV) virus information** was provided by the Arizona DHS, Division of Public Health Services, Office of Infectious Disease Services, for 1998–2002.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

Cocaine-related deaths (116) for the 2002 calendar year reflect a 3-year continuing decline of 46 percent, compared with 215 for the peak year of 1999. Data for the first 4 months of 2003 show the trend is continuing. Cocaine/morphine deaths combined have been stable for the past 4 years (exhibit 1).

The estimated rate of ED cocaine mentions in Phoenix peaked at 91 per 100,000 population in 1999 and gradually declined to 59 per 100,000 in 2002. As shown in exhibit 2, Phoenix dropped below the

national rate for cocaine mentions in both 2001 and 2002. In 2002, the number of cocaine ED mentions totaled 1,727.

In September 2003, the proportion of cocaine adult treatment admissions to the TASC Adult Deferred Prosecution Program was nearly unchanged at 29.2 percent of cumulative treatment admissions since March 1989 (3,822 of 11,408) (exhibit 3). This pattern was stable over the five previous reporting periods. Six percent of juveniles tested positive for cocaine in March–June 2003 (exhibit 4).

In 2001, the Terros, Inc., outpatient detoxification program reported that only 9 percent of treatment admissions were for cocaine abuse; however, through April 2003, 19 percent of admissions were for cocaine abuse. Admissions data from the largest detoxification programs, East Valley Addiction Council and Community Bridges, show that during the first three quarters of the current fiscal year, 51 percent of admissions were for stimulants (cocaine, amphetamine, and methamphetamine).

The Arizona Department of Health Services, Division of Behavioral Health Services, Substance Abuse Bureau, reported 17 percent of clients admitted to treatment throughout the State during FY 2003 were for cocaine abuse (exhibit 5).

Phoenix ADAM weighted data on males reveal a decline in the proportion of adult males testing positive for cocaine from 2000 (31.9 percent), to 2001 and 2002 (each 27.2 percent), and through the first two quarters of 2003 (25.2 percent). Between 2000 and the first three quarters of 2003, the proportion of females testing positive for cocaine fluctuated. In 2000, 35.2 percent of adult female arrestees tested positive for cocaine, compared with 31.6 percent and 26.2 percent for 2001 and 2002, respectively. In the first three quarters of 2003, 28.3 percent tested cocaine-positive. Data for females were unweighted, and convenience sampling was used to select the samples.

Tucson (Pima County) ADAM data presented a striking contrast to the Phoenix data for 2000–2002 for both male and female arrestees. It is notable that adult male and female arrestees more frequently test positive for cocaine in Tucson than in Phoenix. In 2002, 42.5 percent of adult males in Tucson tested cocaine-positive, more than 15 percentage points higher than in the Phoenix sample. An even higher proportion of Tucson females (45.4 percent) than males tested cocaine-positive.

Cocaine powder is consistently available throughout the Phoenix, Tucson, and Nogales areas of Arizona according to the DEA. Wholesale cocaine is primarily sold in powder form in kilogram and half-kilogram pressed bricks wrapped in cellophane and packaging tape. Multikilogram quantities of cocaine are also available in the area, according to the DEA. Fifty kilograms of cocaine are referred to as “tiles.”

Prices in Phoenix in 2003 (through March) for an eightball dropped to \$80–\$100 from a previous high of \$100–\$140 during 2001 (exhibit 6). An eightball sells for \$80–\$120 in Tucson. The kilogram price has remained stable in both Phoenix and Tucson, ranging from \$14,000 to \$18,000. The demand for crack cocaine remains consistent. It can be purchased throughout Phoenix in ounce to pound quantities. The chalky white to light yellow “rocks” are usually packaged in plastic baggies. Crack is sold in the form of rocks, slabs, and cookies. The price for a one-third-gram rock was \$20 in both Phoenix and Tucson in 2003. Ounce quantities are available for \$400–\$480 in Phoenix and \$550–\$700 in Tucson.

Since 1995, law enforcement officers from both the United States and Mexico have found 13 tunnels in Nogales, Arizona, and Nogales, Sonora, that have been suspected of being used to smuggle both drugs and people.

### **Heroin/Morphine**

Morphine-related deaths have been declining since a peak of 137 in 2000 (exhibit 1). Deaths related to the combination of morphine and cocaine appear relatively unchanged over the past 4 years.

Estimated rates per 100,000 population for heroin ED mentions were 40 in 2000, compared with 23 in 2002, reflecting a significant 43.2-percent decrease. The estimated rates for the same periods for the coterminous United States were 38 in 2000 and 36 in 2002 (exhibit 2).

Opiate admissions to the TASC Adult Deferred Prosecution Program remained stable at slightly more than 5 percent of the cumulative total (714 of 11,408) from March 1989 to September 2003 (exhibit 3). Only 1.2 percent of the juvenile TASC clients in March–June 2003 tested positive for opiates (exhibit 4). Data on outpatient detoxification admissions at Terros, Inc., revealed that 48 percent were admitted for heroin abuse, continuing a downward trend. The East Valley Addiction Council and Community Bridges detoxification centers admitted 1,185 (38

percent of 3,094) individuals for opiate detoxification during the first three quarters of FY 2003. Among treatment admissions in the State of Arizona during FY 2003, heroin/morphine accounted for 10 percent (exhibit 5).

During the first two quarters of 2003, 4.0 percent of male arrestees in Phoenix tested positive for opiates. Among female arrestees in the Phoenix ADAM program during the first three quarters of 2003, 6.2 percent were opiate-positive.

The DEA reported that black tar and brown powder heroin were both readily available in Phoenix. Brown powder can be purchased at the street level. According to DMP data, all 29 qualified heroin exhibits in 2002 were Mexican, with a purity of 48.9 percent and a cost of \$0.51 per milligram pure. Heroin purity in Phoenix in 2002 reflected an increase over 2000 and 2001 (41.3 percent each) and was the highest in the west region. Gram prices for heroin in Phoenix and Tucson remained relatively stable between 2001 and the first 3 months of 2003, while the kilogram price increased dramatically in Phoenix during that time period (exhibit 6). The DEA reported a possible increase in purity levels because of increased competition throughout the Southwest.

According to a DEA report, Mexican poppy growers are using “super-productive hybrid poppies” from Colombia in an effort to cultivate a stronger form of heroin. It was reported that the poppies have more bulbs per plant and can boost yields up to 50 percent.

### **Other Opiates/Narcotics**

Deaths related to other narcotics, including propoxyphene, declined from 70 in 2000 to 54 in 2001, only to rise to 69 for 2002, representing a 27-percent increase (exhibit 1).

Estimates of ED mentions for oxycodone/combinations revealed a 78.2-percent increase from 2001 (225) to 2002 (401). ED mentions of hydrocodone/combinations totaled 367 in 2001 and 328 in 2002; those for narcotic analgesics/combinations increased significantly between 1995 and 2002 (by 280.5 percent). ED mentions for anxiolytics, sedatives, and hypnotics totaled 2,051 in 2002, a 23-percent increase over 2000.

The Phoenix DEA Diversion Group reported that the most commonly abused pharmaceutical controlled substances include Vicodin, Lortab, and other hydro-

codone products; Percocet, OxyContin, and other oxycodone products; benzodiazepines; and codeine products. Soma in combination with other analgesic controlled substances, Ultram (tramadol), and Nubain continue to be highly abused prescription-only substances.

The Phoenix Diversion Group reported an ongoing investigation of an OxyContin prescription drug ring in the Phoenix area. Sources have stated that a 40-milligram OxyContin tablet sells for \$20–\$25. Other reported prices include \$5 per Percocet tablet, \$5 per Vicodin ES tablet, \$4 per 10-milligram Valium tablet, \$5–\$6 per 10-milligram Lortab tablet, \$2 per Soma tablet, and \$5 per 10-milligram methadone tablet. Prices remain unchanged from previous reporting periods.

Pain management clinics continue to be the focus of investigation because of an apparent excessive prescribing of controlled substances. Ten-milligram methadone tablets are being diverted to street-level sales.

A bill was introduced and passed during the 2003 Arizona legislative session to place carisoprodol as a controlled substance. Carisoprodol became a Schedule IV drug on September 19, 2003.

The DEA and local police departments reported that significant numbers of man-hours were being devoted to Internet investigations. Some investigations involve physicians/pharmacies distributing large quantities of controlled substances over the Internet.

## **Marijuana**

Marijuana continues to be readily available in quantities up to hundreds of kilograms packaged for delivery, despite large quantities of seizures by the U.S. Customs Service and the U.S. Border Patrol at the ports of entry and at remote sites along the international border. A majority of the bulk marijuana seizures along the border are “abandoned loads” that have been stashed waiting further transport. The size of an average load seized ranged between 200 and 500 pounds.

Seeding of marijuana fields generally occurs in March and April, and the drug is harvested in June through August. Most of the seized marijuana has been of poor quality and low tetrahydrocannabinol (THC) content and contained large quantities of seeds and stalks. An analysis of marijuana seizures completed by the El Paso Intelligence Center (EPIC) and Arizona HIDTA indicated that Arizona ranked second among States in marijuana seizures and accounted for

nearly 30 percent of the marijuana seized along the entire Southwest border.

The estimated number of marijuana ED mentions increased significantly (188.2 percent) from 474 in 1995 to 1,366 in 2002. Marijuana mentions have steadily increased for the past decade. The rate in 1995 was 24 per 100,000, compared with 46 per 100,000 for 2002, a significant 93.5-percent change (exhibit 2).

Marijuana was reported as the primary drug of choice by 22.4 percent of clients in the TASC Adult Deferred Prosecution Program from March 1989 through September 2003 (exhibit 3). Nearly 76 percent (3,616) of juvenile admissions to the TASC Juvenile Probation Program tested positive for marijuana in March–June 2003 (exhibit 4).

In the ADAM program in 2002, 41.5 percent of male juvenile detainees and 37.4 percent of female juvenile detainees tested positive for marijuana. For the first two quarters of 2003, 43.4 percent of male adult arrestees in Phoenix were marijuana-positive. Among adult female arrestees in the ADAM program in the first three quarters of 2003, 31.9 percent were marijuana-positive.

The price fluctuation of wholesale and retail quantities of marijuana is minimal because of the steady availability. Price depends on location in Arizona, the number of middlepersons, and the size of the purchase. Reported prices for 2003 (through March) were identical to the reported prices for 2001. Gram quantities in 2003 were selling for \$10–\$25 in Phoenix and \$5–\$10 in Tucson (exhibit 6).

## **Stimulants**

The data revealed a 17-percent decrease (132) in 2002 for methamphetamine/amphetamine-related deaths. The downward trend appeared to be continuing during the first 4 months 2003. Methamphetamine/combo deaths decreased in 2001 to 35 and increased to 44 in 2002, for a 25.7-percent increase (exhibit 1).

Between 1995 and 2002, the rate of amphetamine ED mentions per 100,000 population in Phoenix increased significantly by 112.9 percent, from 23 to 49 (exhibit 2). The rate of methamphetamine ED mentions in Phoenix was 17 in 2002. In 2002, the number of combined amphetamine/methamphetamine ED mentions in Phoenix (1,937) was second only to Los Angeles (3,380) (exhibit 7).

A statistical summary of the TASC Adult Deferred Prosecution Program revealed that 26.5 percent (2,932) of the March 1989 through September 2003 treatment admissions (11,408) were for methamphetamine abuse (exhibit 3). Seventeen percent of the TASC juveniles (810) in fourth quarter of 2003 tested positive for methamphetamine/amphetamine (exhibit 4). Thirteen percent of admissions to Terros, Inc., in FY 2002–2003 were for methamphetamine detoxification, compared with 7 percent in the last reporting period. Data for the East Valley Addiction Council and Community Bridges detoxification programs show 51 percent of treatment admissions were for stimulant abuse in FY 2002–2003. Twenty-four percent of treatment admissions in the State, as reported by the Arizona Department of Health Services, Division of Behavioral Health, were for methamphetamine/speed abuse in FY 2003 (exhibit 5). Only the proportion for alcohol abuse (25 percent) was slightly higher.

The ADAM adult arrestee data show progressively increasing numbers testing methamphetamine-positive. Nineteen percent of males in Phoenix in 2000 tested positive for methamphetamine, compared with 25.3 percent in 2001, 31.2 percent in 2002, and 37.8 percent in the first two quarters of 2003. Twenty-four percent of females in Phoenix tested methamphetamine-positive in 2000, compared with 32.3 percent in 2001, and 41.7 percent in 2002 and in the first three quarters of 2003. The proportions of male and female arrestees in Tucson who tested methamphetamine-positive were substantially lower, although they increased modestly for females from 9.0 percent, to 12.4 percent, to 14.3 percent in 2000, 2001, and 2002, respectively. In 2002, only 9.2 percent of male arrestees in Tucson tested methamphetamine-positive.

ADAM juvenile data for 2003 show that 7.6 percent of male detainees and 12.2 percent of female detainees tested positive for methamphetamine in Phoenix. The only CEWG city with a higher rate was San Diego, with 9.9 percent of juvenile male detainees and 15.9 percent of female detainees testing methamphetamine-positive.

The demand and use of methamphetamine/amphetamines continued an upward trend. Purity averaged 25 to 55 percent. The DEA reported that “ice/glass” now dominates street-level sales throughout Arizona. Street-level purchases of ice exceed 94 percent purity. Reportedly, the majority of methamphetamine for distribution is manufactured in “super labs” in California and Mexico.

A total of 186 clandestine laboratories were seized

during the first three quarters of FY 2003 by combined law enforcement groups. In Phoenix, it was reported that 61 children were present at clandestine lab locations during the second and third quarters of the fiscal year. The DEA reported the approximate costs for clandestine methamphetamine laboratory clean up as \$743,000 for calendar year 2002.

The DEA, local police departments, and county sheriffs’ offices report the following methamphetamine prices, which vary depending on location in the State and whether the methamphetamine is the higher-grade ice. In 2001, a pound of crude brownish Mexican methamphetamine sold for \$3,500 in Phoenix. The pound price in Phoenix in 2003 (through March) was still reported as \$3,500 for the crude brownish form, while ice sold for \$7,000–\$9,000, lower than the upper-end price of \$12,000 in 2001 (exhibit 6). There is an appreciable price difference between newly produced or fresh methamphetamine and an old product that has been allowed to dry out and vacate solvents from the production process.

The Bureau of Immigration and Customs Enforcement began reporting a sharp increase in the number of immigrants taking a 500-milligram pill known as “triple stacks.” The white tablets are a mixture of aspirin, caffeine, and ephedrine, a combination banned in 1983 from over-the-counter sale by the Food and Drug Administration. The tablets may be one of the reasons for a reported record 50 deaths of immigrants in July in Arizona. Undocumented immigrants are given the stimulant by smugglers in an effort to speed up the border crossing.

### Other Drugs

Estimates for ED mentions of selected club drugs showed a 76-percent decrease in lysergic acid diethylamide (LSD) mentions in 2002 ( $n=15$ ), compared with 2001 (62), and a 48-percent decrease in methylenedioxymethamphetamine (MDMA or ecstasy) mentions from 96 in 2001 to 50 in 2002. Mentions for phencyclidine (PCP) did not increase significantly from 2001 to 2002 (61 vs. 81). Club drugs continue to be readily available throughout Arizona, including gamma hydroxybutyrate (GHB), ketamine, and nitrous oxide (“whippits”). Psilocybin mushrooms are readily available in the Flagstaff area. It is believed that the mushrooms are transported from Oregon and Washington State.

Law enforcement agencies described two new ecstasy tablets, “White Cartier’s” and “Yellow Unicorns.” The DEA reported that “Pink Mercedes” tablets

tested contained 8.3 percent MDMA, 83.3 percent ketamine, and 8.3 percent pseudoephedrine. “White Versace” tablets tested 100 percent for MDMA. Ecstasy is transported into Phoenix from Mexico, Canada, California, and Amsterdam.

Reported prices for GHB were \$5–\$10 for one dose (1 teaspoon), \$425 for 25 pounds, and \$700 per gallon. The individual tablet price for MDMA in 2003 was \$15–\$30 (exhibit 6). The price decreases, however, when larger quantities are purchased. The 1,000 tablets in “a boat,” which previously sold for \$4.50–\$9.00, were reported to sell for \$7.00–\$12.00 each in Phoenix in 2003 (through March), and 5,000 or more tablets sold for \$6–\$7 each.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

##### AIDS

Since 1981, there have been a total of 8,785 AIDS cases and 5,545 HIV, non-AIDS cases reported to the Arizona Department of Health Services. Of these AIDS cases, 4,646 (53 percent) are known to be deceased (exhibit 8).

The incidence rate for AIDS has shown a steady decrease in recent years, declining from 14.7 per 100,000 population in 1990 to 8.0 in 2000. The HIV incidence rate has increased slightly from 7.4 per 100,000 population in 2000 to 7.8 in 2002. The annual incidence rate of AIDS and HIV in Arizona is roughly one-half the national rate.

Ninety-one percent of the total reported AIDS cases are male, but a larger percentage of more recently reported cases are female. For the 3-year period from 1985 to 1987, females accounted for 7.4 percent of the cases; the proportion nearly doubled to 14.0 percent during the 3-year period from 2000 to 2002.

The proportion of total AIDS cases among the White population compared with people of color in Arizona has decreased over the years, from 83 percent White in the 1980s, to 70 percent in 1994, to 56 percent over the 3-year period from 2000 to 2002. Conversely, this means that the proportion of AIDS cases among peo-

ple of color in Arizona has increased to nearly one-half the total number of cases during the 2000–2002 period. The mean age of HIV cases (33.6) and AIDS cases (36.6) for people of color is significantly lower than that of the White population for HIV (35.2) and AIDS (38.1).

The majority of HIV cases reported in Arizona have been among men who have sex with men (MSM) (68 percent of male infections, 62 percent overall), followed by injection drug users (IDUs), and MSM/IDUs (exhibit 9). Modes of infection have shown shifts in frequency from the early years of the epidemic in Arizona, with MSM dropping from 67 percent in the 1980s to 55 percent over the 3-year period from 2000 to 2002.

The number of deaths among persons with AIDS in the State showed a marked decrease in the late 1990s, attributable to multidrug treatment combinations that were introduced early in the 1990s as well as the advent of multiple protease inhibitors in the mid-1990s. For each year over the past 8 years, time between diagnosis and death has lengthened and the number of AIDS-related deaths has decreased.

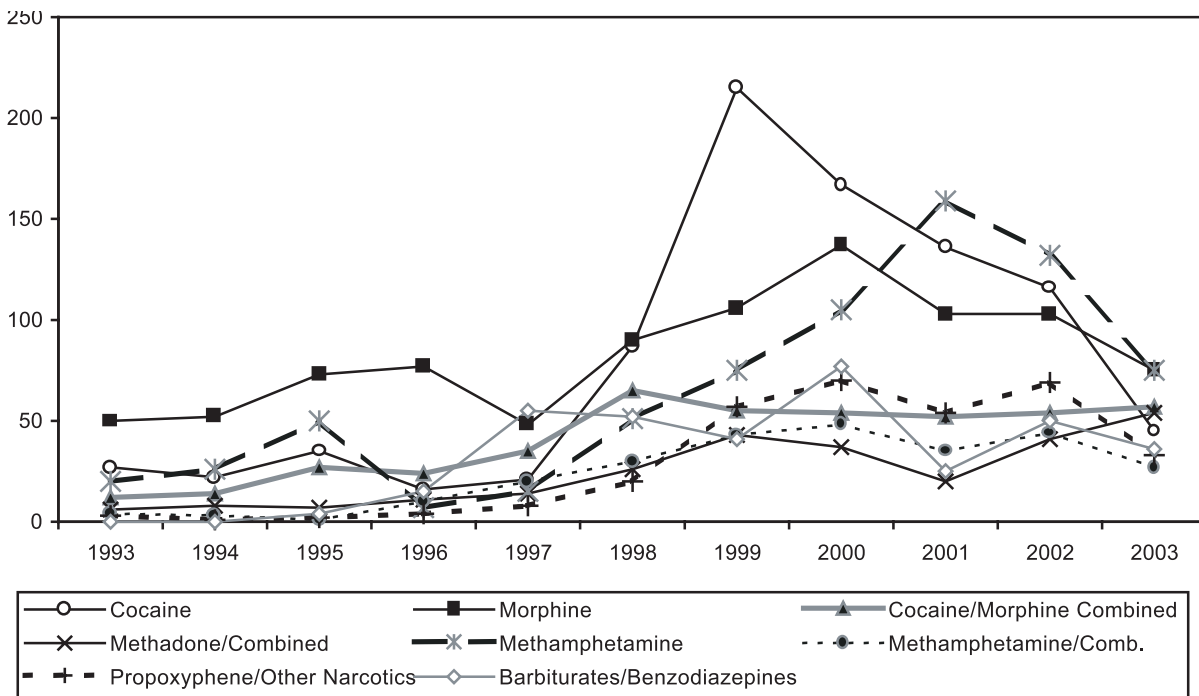
##### Hepatitis C (HCV)

Reported chronic cases of confirmed HCV infection in Arizona have steadily increased since the establishment of the registry of chronic hepatitis C infection was initiated in 1998 (exhibit 10). Reporting by physicians and clinical laboratories began in April 1997. It is estimated that 92,000 Arizonans are infected with HCV. Of these, approximately 14,000 may develop severe liver disease. As many as 80 percent of Arizonans who are infected with HCV do not know they are infected. Most HCV-infected Arizonans are between the ages of 30 and 49.

The Arizona Department of Health Services, Division of Public Health Services, Office of Infectious Diseases Services, is launching a prevention effort that will include hiring health educators who are to contact those individuals infected with hepatitis C to convince them to not drink alcohol and to be vaccinated against hepatitis A and B.

*For inquiries concerning this report, please contact Ilene L. Dode, Ph.D., EMPACT Suicide Prevention Center, Inc., 1232 East Broadway, Suite 120, Tempe, AZ 85282, Phone: (480) 784-1514, Fax: (480) 967-3528 E-mail: <idode@aol.com>.*

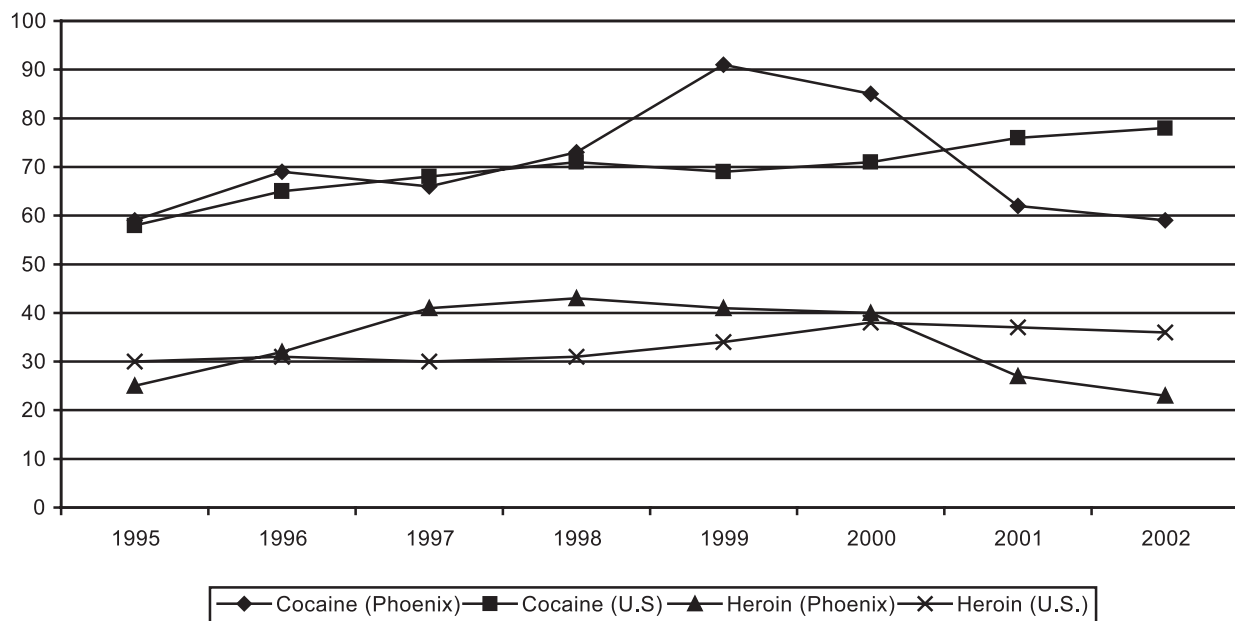
**Exhibit 1. Annual Number of Drug-Related and Drug-Induced Deaths in Phoenix, by Drug: 1993–2003<sup>1</sup>**



<sup>1</sup>Data for 2003 are for the first 4 months only.

SOURCE: Maricopa County Medical Examiner's Office

**Exhibit 2. Estimated Rates of Cocaine and Heroin ED Mentions Per 100,000 Population in Phoenix and the Coterminous United States, by Year: 1995–2002**



SOURCE: DAWN, OAS, SAMHSA

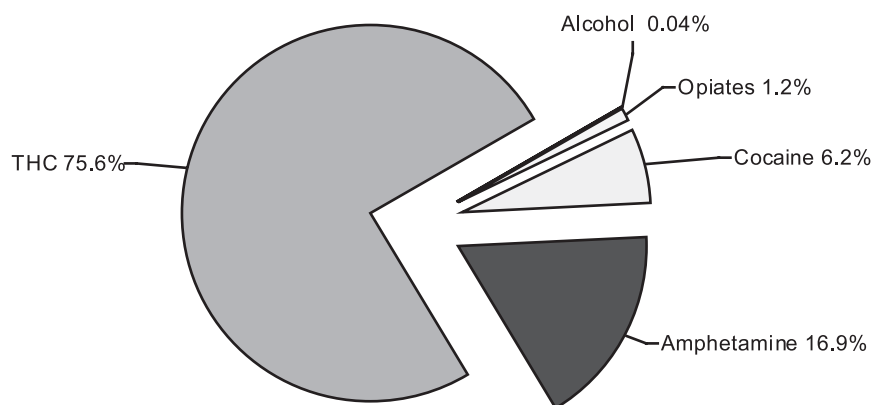


**Exhibit 3. Primary Drug Problem and Demographics of Adult Deferred Prosecution Program Admissions: March 1989–September 2003**

Characteristic	Number	Percent
Primary Drug Problem		
Cocaine	3,822	29.2
Opiates	714	5.4
Marijuana	2,932	22.4
Methamphetamine	3,475	26.5
Polydrug	1,561	11.9
Denies drug problem	605	4.6
Gender		
Male	5,862	72.3
Female	2,632	27.7
Ethnicity		
Caucasian	5,226	62.3
Hispanic	2,371	28.2
African-American	546	6.5
Native American	163	1.9
Other	88	1.0
Employment Status		
Full-time	4,910	56.5
Part-time	965	11.1
Unemployed	2,479	28.5
Disabled	340	3.9
Marital Status		
Single	4,433	52.8
Married	2,070	24.7
Divorced	1,277	15.2
Separated	614	7.3

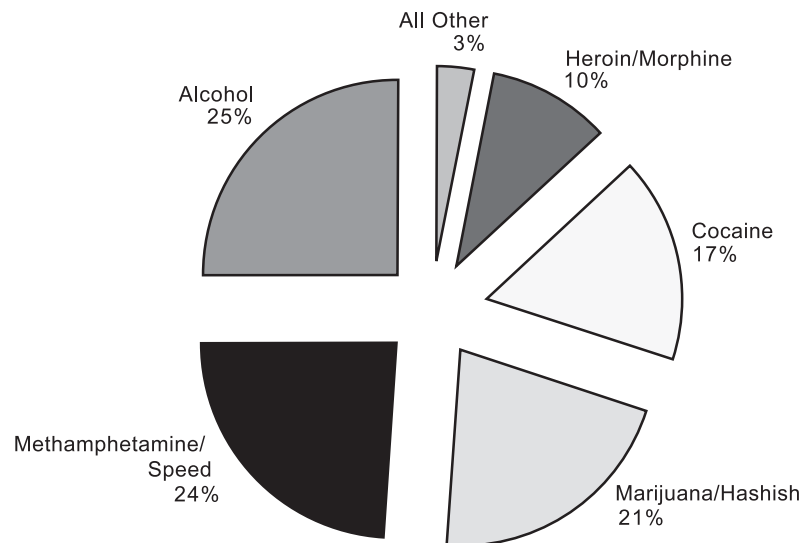
SOURCE: Adult Treatment and Assessment Screening Center (TASC)—Deferred Prosecution Program, Cumulative Statistical Report

**Exhibit 4. Positive Tests Among Juvenile TASC Clients, by Drug and Percent: March–June 2003**



SOURCE: Treatment and Assessment Screening Center (TASC), Maricopa County Juvenile Probation

**Exhibit 5. Primary Substances of Abuse Among Treatment Admissions in Arizona, by Percent: FY 2003**



SOURCE: Arizona Department of Health Services, Division of Behavioral Health, Bureau for Substance Abuse Treatment and Prevention

**Exhibit 6. Prices of Selected Drugs in Phoenix and Tucson: 2001 and January–March 2003**

Drug	Phoenix 2001	Tucson 2001	Phoenix 2003 <sup>1</sup>	Tucson 2003 <sup>1</sup>
Cocaine				
Rock (1/3 gram crack)	N/R <sup>2</sup>	N/R	\$20	\$20
Eightball	\$100–\$140	\$80–\$130	\$80–\$100	\$80–\$120
Ounce	\$500–\$600	\$500–\$650	\$600–\$800	\$500–\$600
Ounce crack	N/R	N/R	\$400–\$480	\$550–\$700
Kilogram	\$15,000–\$17,000	\$15,000–\$18,000	\$14,000–\$17,000	\$15,000–\$17,000
Heroin				
A “BB” (80–100 mg)	\$20	\$20–\$25	\$20	\$20–\$25
A “paper” (0.25 gram)	\$20–\$30	\$20–\$25	\$20	\$20–\$25
Gram	\$70–\$100	\$60–\$110	\$80	\$60–\$110
Ounce (“piece,” 28 grams)	\$1,100–\$1,500	\$1,075–\$1,300	\$950–\$1,000	\$1,075–\$1,300
Kilogram	\$32,000–\$40,000	N/R	\$42,000–\$50,000	\$43,000
Marijuana				
Gram	N/R	N/R	\$10–\$25	\$5–\$10
Ounce	\$75–\$150	\$65–\$105	\$75–\$150	\$65–\$105
Pound	\$500–\$750	\$400–\$600	\$500–\$750	\$400–\$600
Methamphetamine				
1/8 ounce	N/R	N/R	\$150 (ice), \$120–\$150	\$120–\$250
1/2 teener	N/R	N/R	\$40	\$80–\$125
1/4 ounce	\$125	\$275	\$250 (ice)	\$120–\$300
Ounce	\$300–\$600	\$500–\$900	\$700–\$800 (ice), \$300–\$500	\$650–\$1,000
Pound	\$3,500–\$12,000 (higher price for ice)	\$3,800–\$6,000	\$7,000–\$9,000 (ice) \$3,500	\$13,000 (ice)
MDMA				
One tablet (retail)	\$15–\$30		\$15–\$30	
Roll (25–100 tablets)	N/R	N/R	\$10–\$15 each	N/R
Boat (1,000 tablets)	N/R		\$7–\$12 each	
5,000 or more tablets	N/R		\$6–\$7 each	

<sup>1</sup>Data for 2003 are for January–March only.

<sup>2</sup>N/R=Not reported.

SOURCE: DEA Phoenix Division Office, U.S. Customs, Arizona Department of Public Services, Phoenix Police Department, and the Maricopa County Sheriff’s Department

**Exhibit 7. Combined Numbers of Amphetamine and Methamphetamine ED Mentions in 9 CEWG Areas in 2002 and Percent Change by Drug: 2001–2002**

CEWG Area	Number of Combined Mentions	Percent Change <sup>1</sup> 2001, 2002	
		Amphetamines	Methamphetamine
Los Angeles	3,380		
Phoenix	1,937	61.7	
San Diego	1,741	21.3	
San Francisco	1,427	-10.9	19.0
Seattle	996	-34.9	37.0
Atlanta	861		43.0
Denver	579		
St. Louis	556		
Minneapolis/St. Paul	523		

<sup>1</sup>Represents statistically significant ( $p < 0.05$ ) increases and decreases between 2001 and 2002.

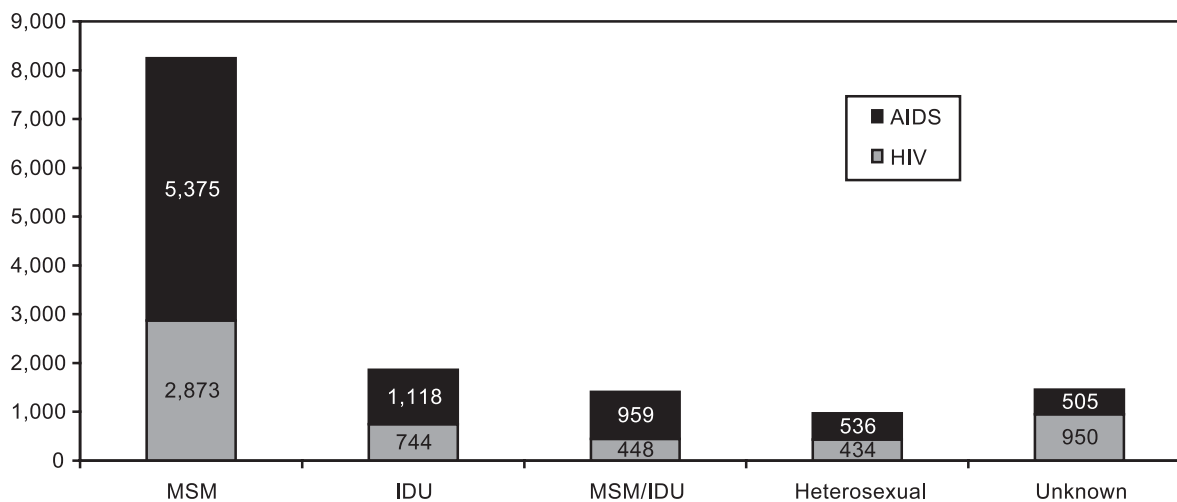
SOURCE: DAWN, OAS, SAMHSA

**Exhibit 8. Reported Arizona AIDS and HIV Infection Cases and AIDS Case Fatality Rates by Year: January 1981–June 2003**

Time Period	AIDS Cases			HIV Infection Cases	
	Cases	Deaths	Case Fatality Rate	Cases	Additional Positive Anonymous Tests
1981	1	1	100%		
1982	5	5	100%		
1983	11	9	82%		
1984	32	30	94%		
1985	100	96	96%	68	
1986	174	166	95%	108	
1987	316	291	92%	399	
1988	372	328	88%	442	
1989	481	428	89%	325	378
1990	541	471	87%	337	407
1991	564	494	88%	285	444
1992	721	551	76%	255	371
1993	692	440	64%	248	352
1994	647	365	56%	227	273
1995	696	334	48%	285	259
1996	560	179	32%	322	368
1997	527	125	24%	324	304
1998	517	123	24%	304	288
1999	438	74	17%	321	349
2000	413	44	11%	378	323
2001	409	43	11%	394	318
2002	438	39	9%	426	342
2003	130	10	8%	97	
<b>Total</b>	<b>8,785</b>	<b>4,646</b>	<b>53%</b>	<b>5,545</b>	<b>4,956</b>

SOURCE: Arizona Department of Health Services, Division of Public Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/STD Statistics

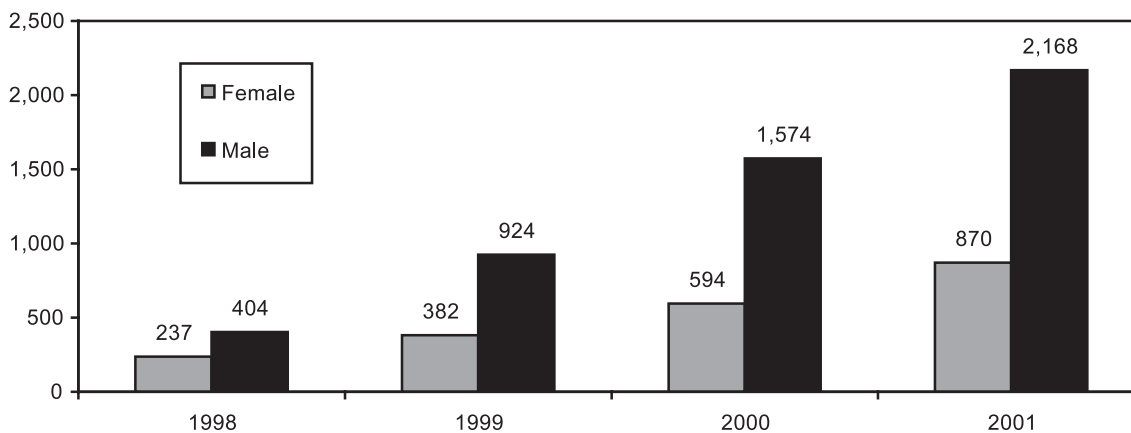
**Exhibit 9. Reported Arizona AIDS and HIV Infection Cases by Mode of Exposure<sup>1</sup>: January 1981–June 2003**



<sup>1</sup>Cases attributable to blood products, hemophilia, and perinatal exposure are not depicted on the exhibit because of their small number.

SOURCE: Arizona Department of Health Services, Division of Public Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/STD Services

**Exhibit 10. Reported Chronic Cases of Confirmed Hepatitis C Infection in Arizona, by Gender: 1998–2001**



SOURCE: Arizona Department of Health Services, Division of Public Health Services, Office of Infection Diseases Services

# Patterns and Trends in Drug Abuse in St. Louis

Heidi Israel Adams, Ph.D., R.N., L.C.S.W.<sup>1</sup> and Jim Topolski, Ph.D.<sup>2</sup>

## ABSTRACT

*Heroin and cocaine indicators were mixed, while methamphetamine was increasingly prominent in St. Louis indicators. St. Louis and St. Louis County law enforcement personnel expressed concern about methamphetamine use, and methamphetamine labs in rural areas continued to be a problem. New prevention efforts have been initiated for both methamphetamine and club drugs such as MDMA. Indicator data concerning club drug use/abuse continued to be sparse. Marijuana indicators have been trending up in St. Louis for some time. Primary marijuana treatment admissions more than doubled between 1997 and 2001 and remained at this elevated level in the first half of 2003. PCP ED mentions increased by 93.2 percent between 2000 and 2002. In the St. Louis area, 2,201 cases of HIV and 4,158 cases of AIDS were identified through December 2002.*

## INTRODUCTION

### Area Description

The St. Louis metropolitan statistical area (MSA) includes approximately 3 million people living in the city of St. Louis; St. Louis County; the surrounding rural Missouri counties of Franklin, Jefferson, Lincoln, St. Charles, and Warren; in Illinois, East St. Louis; and St. Clair County. St. Louis's population has continued to decrease to approximately 350,000, many of whom are indigent and minorities. Although violent crime has generally decreased, 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 of the city. The most rapidly expanding population areas are in St. Charles and Jefferson Counties, which have a mixture of classes and both small towns and farming areas. 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 and not to the total MSA. Anecdotal information and some treatment data

are provided for rural areas and for the State. Limited data are also available for other parts of Missouri and offer a contrast to the St. Louis drug use picture.

### Data Sources

The sources used in this report are indicated below:

- **Emergency department (ED) drug mentions data** were provided by the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for 1994–2002.
- **Drug treatment data** were derived from the Treatment Episode Data Set (TEDS) database through the first half of 2003. Private treatment programs in St. Louis County provided anecdotal information.
- **Heroin price and purity information** was provided by the Drug Enforcement Administration (DEA)'s Domestic Monitor Program (DMP).
- **Drug-related mortality data** were provided by the St. Louis City Medical Examiner's Office.
- **Intelligence data** were provided by the Missouri Highway Patrol and the DEA.
- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** were derived from the HIV Vaccine Trials Unit at Saint Louis University and the St. Louis Metropolitan Health Department and AIDS Program.

Linda Cottler, Ph.D., of Washington University, who has multiple behavioural research grants, provided additional data.

### 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 are that methamphetamine is used primarily by

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Whites, while cocaine is used primarily by African-Americans. Also, St. Louis City drug dealers are primarily African-American, and city traffickers deal cocaine and heroin. Few methamphetamine labs have been identified in the more populated St. Louis area. Consequently, methamphetamine is not as regularly available in St. Louis City, but it is more readily available outside the city.

Heroin of reasonable purity has continued to be available, but it is also quite expensive compared with other cities. This Midwestern city is a destination market, with small entrepreneurial groups marketing the drug.

Drug education and prevention activities have continued at the community level through programs such as Drug Abuse Resistance Education (DARE) and collaborative arrangements between communities and the police. The National Council on Alcoholism and Drug Abuse (NCADA) and other local education programs target prevention of drug use in the area. 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, and increased treatment admissions may be a reflection of a high number of court referrals. Gangs continue to be involved in the drug trade and related violence, with large numbers of African-American and Asian youth and young adults involved in these groups. Interdiction programs include Operation Jetway and Operation Pipeline.

### **Cocaine/Crack**

The St. Louis City/County medical examiner (ME) reported that cocaine-related deaths trended downward from 128 in 1994 to 58 in 2002 (exhibit 1a). Many of the recent deaths involved alcohol and other drugs.

According to DAWN, the rate of cocaine ED mentions per 100,000 population increased significantly between 1995 and 2002 (by 91.4 percent) and also significantly by 55.8 percent from 2000 to 2002 to a current rate of 153 (exhibit 1a). The number of mentions also increased significantly between 2000 ( $n=2,403$ ) and 2002 (3,536). Between 2001 and 2002, the numbers of mentions made by those age 45–54 and 55 and older increased significantly.

Among treatment admissions for illicit drug abuse, the proportion for primary cocaine abuse was up slightly in the first half of 2003 compared with all of 2002 (exhibit 1a). Cocaine remained the most

common primary drug of abuse among admissions for illicit drug abuse (36.2 percent), followed by marijuana (27.7 percent) and heroin (12.4 percent). In the first half of 2003, the typical cocaine admission was an African-American male age 35 or older who smoked the drug.

While the DEA's emphasis has shifted from cocaine to methamphetamine, club drugs, 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. Powder cocaine grams sold for \$100–\$125; purity averaged 70 percent (exhibit 1b). Crack prices have dropped to \$100–\$250 per gram and \$20 per rock on the street corner. An “eightball” costs about \$300. 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 at \$100–\$120. The “rock” price is the same in smaller cities outside St. Louis, but the gram price is higher.

The continued use of cocaine has potentially severe long-term consequences by contributing to the spread of sexually transmitted diseases (STDs) through multiple partners. The STD rate in St. Louis has decreased, but drug and alcohol use continue to contribute to unsafe sex and multiple partners.

Most cocaine users smoke crack cocaine, though some use powder cocaine. Only injection drug users (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 methamphetamine in addition to cocaine suggests this trend will likely continue. Cocaine use varies by area, and the drug is primarily used in urban areas in the form of crack.

### **Heroin**

Heroin-related deaths reported by the St. Louis City/County ME leveled off in recent years. In 2002, there were 35 heroin-related deaths (exhibit 1a). Statewide heroin deaths caused by overdose alone were not much higher, because heroin purity is higher in the St. Louis area than in other cities in Missouri. More heroin deaths occurred in St. Louis County than in the inner city; these deaths are interpreted to support the trend that heroin use is increasing in the suburbs.

Heroin consistently appears in all indicators. Heroin

ED mentions rose steadily through 2002 and totaled 1,167 that year (exhibit 1a). ED mentions for the 18–25 and 26–34 age groups increased in recent reporting periods, and mentions by the 55-and-older age group significantly increased from 2000 to 2002. The increase in heroin mentions among many age groups over the past 7 years indicates the wide availability of this drug in this MSA. Among those who made ED mentions of heroin in 2002, the three top reasons for seeking medical intervention were overdose, withdrawal, and seeking detoxification. The number of mentions for overdoses significantly rose by 5.8 percent from 2001 to 2002.

While heroin treatment admissions increased dramatically as a proportion of illicit drug admissions between 1996 and 2000, they leveled off in 2001 and 2002 and were down 11.3 percent between the second half of 2002 and the first half of 2003 in the St. Louis region. Limited slots for admissions to State-funded methadone or modified medical detoxification programs exist in Missouri, which may influence this data. When queried, private treatment programs stated that 25 percent of their admission screens were for heroin abuse, but admission depended on “ability to pay.” Thus, many heroin abusers in need of treatment were referred to State-supported programs or “private pay” methadone programs. Rapid detoxification, using naltrexone (Depade, ReVia), is still a treatment option at private hospitals, but it is expensive. About 36 percent of heroin admissions were younger than 25. 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 consistent, 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.

A steady supply of Mexican heroin remains available. The DEA’s DMP data showed a peak of 24.0 percent purity in 1998 and a drop to 13.8 percent average purity in 2002 (exhibit 1b). In June–December 2003, samples of Southwest Asian (SWA) heroin were purchased. The purity was 28 percent for this SWA heroin. Historically, heroin purity has fluctuated by area and over time. White heroin from Asian and South American sources is becoming more available.

Most heroin is purchased in aluminum foil. In addition, it is sold in “bindles” (one-tenth-gram packages of heroin in plastic wrap and aluminum foil) for \$40 (exhibit 1b). The number-5 gel capsule is also available. Most available heroin is dark brown or black tar

and of consistent quality and availability.

Heroin cost \$1.54 per milligram pure in the most recent DMP analysis, a significant drop in price from previous years. 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. Thus, the risk of being arrested has declined. In St. Louis and other smaller urban areas, small distribution networks sell heroin.

Kansas City’s heroin supply differs from that of St. Louis. Most heroin in Kansas City is black tar and is consistently of poor quality (less than 10 percent pure). The supply was consistent during June–December 2003, and a \$10 bag of heroin is available. Heroin has also become available in the smaller, more rural cities of Springfield and Joplin, each of which has a small IDU population using heroin and methamphetamine.

#### **Other Opiates/Narcotics**

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 1b). Other opiates continue to represent less than 1 percent of all treatment admissions. Methadone and morphine ED mentions remained stable. ED mentions of oxycodone and oxycodone combinations rose significantly from 2001 to 2002.

The use of hydromorphone (Dilaudid) remained common among a small population of White chronic addicts. The drug costs \$30–\$75 per 4-milligram pill. Abuse of oxycodone (Percocet and Percodan) by prescription is growing in popularity.

Codeine and methadone have been ranked among the commonly detected drugs in the ME data. Significant increases in ED mentions of narcotic analgesics and narcotic analgesic combinations occurred from 2001 to 2002.

#### **Marijuana**

ED marijuana mentions remained high at 2,866 for 2002 (exhibit 1a), a significant 62.6-percent increase over 2000. Mentions by those age 35 and older



increased significantly from 2001 to 2002.

Marijuana treatment admissions more than doubled from 1997 (1,573 admissions) to 2001 (3,210 admissions) and remained stable in the first half of 2003, representing nearly 28 percent of illicit drug admissions (exhibit 1a). Marijuana, viewed by young adults as acceptable to use, is often combined with alcohol. The 25-and-younger age group accounted for 65.6 percent of primary marijuana treatment admissions in the first half of 2003.

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. As a potential gateway drug to more serious drug abuse, marijuana is being seriously targeted in local prevention efforts and in the educational system. 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 cultural acceptance of marijuana use.

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.

In the first half of 2003, 1 pound of sinsemilla sold for \$500–\$1,200 in St. Louis (exhibit 1b).

### **Stimulants**

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

In 2001, methamphetamine was detected in a few ME cases in the St. Louis metropolitan area. No more recent information is available.

ED methamphetamine mentions in St. Louis increased in the late 1990s and totaled 150 in 2002 (exhibit 1a). Most of the mentions in 2002 involved males (63 percent), and most were White.

Methamphetamine (“crystal” or “speed”) was found at very low levels in city indicators in 1995, but reported use has slowly increased over the last 8 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 amphetamine use is not as widespread in the St. Louis area and could indicate differences in dealing networks and access to locally produced drugs (“mom and pop” local production versus the Mexican methamphetamine distribution). Cocaine and methamphetamine use are split along racial lines in the State. While the number of methamphetamine treatment admissions was still relatively low in St. Louis (249 in the first half of 2003), in rural treatment programs methamphetamine was the drug of choice after alcohol.

The Midwest Field Division of the DEA decreased its cleanup of clandestine methamphetamine labs after training local enforcement groups. The intensity of these 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 monitored in rural areas. In 2002, the Missouri Highway Patrol reported 2,743 seizures of methamphetamine labs, dumpsites, and locations of inactive labs in Missouri, ranking it ahead of California, Washington, and Kansas.

In the new 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. Purity of the drugs produced by these labs and percent of finished product depends on the experience/attentiveness of the “cooker.”

Locally produced methamphetamine purity fluctuated between 70 and 80 percent, while methamphetamine from Mexico was only 20–30 percent pure (exhibit 1b). Methamphetamine shipments were seized in the interstate Highway Patrol Pipeline program, with puri-

ty ranging from 20 to 30 percent. Methamphetamine sold for \$700–\$1,300 per ounce in St. Louis and for as little as \$50–\$100 per gram in some areas.

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 easy to produce, it is likely that its use will continue to spread.

### Depressants

DAWN ED data reflected few mentions in this category in 2002; the rate of depressant mentions per 100,000 population was not significantly different from prior years.

Private treatment programs often provide treatment for benzodiazepine, antidepressant, and alcohol abusers. Day hospital programs and 3-day detoxification have become the treatments 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 \$2–\$7 per 35-microgram dose (exhibit 1b). Much of this LSD is imported from the Pacific coast. DAWN data show a steady increase of LSD ED mentions from 1997 (19) to 2000 (74), but a drop to 52 in 2001 and a significant drop to 24 in 2002.

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, including ED mentions, police exhibits, and as a secondary drug in ME data. Most of the users of this drug in the inner city are African-American. PCP ED mentions totals increased significantly by 93.2 percent from 2000 to 2002.

### Club Drugs

DAWN ED data show few mentions of methylenedioxymethamphetamine (MDMA) (55 in 2001 and 35 in 2002). Even fewer mentions of ketamine (2) or gamma hydroxybutyrate (GHB) (4) were reported in 2002. MDMA remained readily available at raves and other dance parties and cost \$20–\$30 per tablet.

The rave scene has become quite popular in St. Louis. Most ecstasy users are young adults. While reported use of MDMA or “X” by high school students is frequent, no indicator quantifies use in this age group.

Toxicology reports showing high levels of ecstasy are rare. Most of the reports about high levels of MDMA abuse are anecdotal or are part of a polydrug user’s history. Public treatment programs reported no admissions for MDMA. The private treatment programs that were queried reported MDMA as part of a polydrug abuser’s history in less than 10 percent of their treatment admissions.

A local researcher reports that hepatitis C is at high levels among a cohort of known MDMA users. This hepatitis rate may be caused by the polydrug use of these participants.

Dr. Linda Cottler has conducted key informant interviews with several high school and college students to gather data on club drugs in St. Louis. Dr. Cottler’s research group is investigating use further and is using focus group interviews with users and professionals to gather data and validate the diagnosis for ecstasy abuse.

GHB remains under scrutiny because its use with alcohol produces an unpredictable reaction in users. No recent deaths were reported from this “date-rape” drug. GHB is often sold in nightclubs for \$5 per capful or \$40 per ounce. GHB education efforts are directed towards ED personnel, who often see the users initially. Ketamine (“Special K”), a veterinary anesthetic, is known for its hallucinogenic effects. Use of ketamine has been acknowledged anecdotally.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Seropositivity among IDUs remained low in St. Louis. However, it increased among sexual partners of individuals practicing high-risk modes of exposure. The largest increase was found among young African-American females, who were infected through heterosexual contact, and young African-American males. As a result, increased specialized minority prevention efforts have been initiated.

Of the total 2,201 HIV-positive cases identified through 2002, nearly 7 percent were IDUs and nearly 4 percent involved men who have sex with men (MSM) and are also IDUs (exhibit 2).

Cumulative AIDS cases totaled 4,158 through 2002 (exhibit 3). Of these cases, 2 percent were IDUs and

2 percent were MSM/IDUs. The number of infected African-Americans was increasing disproportionately among males and females.

#### SPECIAL PROJECTS AND RELATED HEALTH ISSUES

##### STD Rate/Hepatitis C

St. Louis had a syphilis epidemic in 1993 and 1994. In 2000, St. Louis ranked eighth in the Nation for syphilis cases. In 2002, the city still ranked in the top 20 cities for syphilis cases, and the Centers for Disease Control and Prevention has funded prevention programs in the community. 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. This may limit the cross-spread of these illnesses within a neighborhood or Zip Code. Hepatitis C is a concern in these populations, but inconsistent reporting has made estimation of the problem and tracking of hepatitis C cases difficult. St. Louis ranks third in the country for gonorrhea, with cases remaining at approximately 1,000 per year, and second for chlamydia. Risk-reduction activities have traditionally had limited effects on the recidivism rates with STD cases, leading to the evaluation of harm-reduction models. Recent research has focused on effective short-term interventions as

the method for risk reduction delivery. The increase in heterosexual transmission is a concern for public health officials. Further research is needed on ways to effect sustained behavior change.

##### 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. A completed Phase III trial showed poor laboratory assay results, making progression with the current vaccine unfeasible. New concepts in vaccines and delivery mechanisms are currently being investigated.

##### REFERENCES

Herlig, C. Strategic Intelligence, St. Louis Office of the Drug Enforcement Administration. Personal communication.

Cottler, L.; Womack, S.B.; and Compton, W.M. *Ecstasy Abuse and Dependence Among Adolescents and Young Adults: Applicability and Reliability of DSM-IV Criteria*. St. Louis, Missouri: Washington University, 2001.

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**Exhibit 1a. Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 1996–June 2003**

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine
Number of Deaths by Year				
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	36	NA	3
2002	58	35	NA	-
DAWN ED Data				
Number of mentions (2002)	3,536	1,167	2,866	150
Number of mentions (2001)	3,080	1,309	2,311	115
Rate per 100,000 population (2002)	153	51	124	7
Gender of mentions (%) (2002)				
Male	63.3	63.8	63.4	63.3
Female	36.1	36.2	35.8	36.0
Age (%) (2002)				
12–17	1.5	1.4	8.4	15.3
18–34	36.9	56.0	52.2	53.3
35 and older	61.5	42.4	39.5	31.3
Race (%) (2002)				
White	39.1	55.6	54.9	85.3
African-American	56.3	39.9	40.7	---3
Hispanic	-0.6	... <sup>2</sup>	0.4	0.7
Other/unknown	2.9	3.1	2.7	4.7
Route of Administration (%) (Last update-2000)			NA	
Smoking	62.3	6.4		18.8
Intranasal	25.9	22.2		15.6
Injection	7.0	71.5		46.9
Unknown/other	4.8	-		18.8
Treatment Admissions Data				
Illicit drug admissions (%) (1H 2003)	36.2	12.4	27.7	7.5
Illicit drug admissions (%) (2002)	33.6	10.8	29.6	4.2
Gender (%) (1H 2003)				
Male	54.9	62.5	74.0	54.2
Female	45.1	37.5	26.0	45.8
Age (%) (1H 2003)				
12–17	0.6	0.8	25.5	4.4
18–25	8.0	34.9	40.1	32.6
26–34	24.0	25.6	20.3	36.5
35 and older	67.4	38.6	14.1	26.5
Race/Ethnicity (%) (1H 2003)				
White	26.1	40.1	41.1	98.9
African-American	73.3	59.0	57.9	0.2
Hispanic	1.1	0.9	1.0	0.0
Route of Administration (%) (1H 2003)				
Smoking	90.7	4.1	95.8	47.0
Intranasal	5.1	37.3	0.3	14.9
Injecting	1.7	52.9	0.1	33.3
Oral	1.6	1.0	1.6	4.0

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

<sup>2</sup>Dots (...) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.

<sup>3</sup>Dashes (---) indicate that an estimate has been suppressed because of incomplete data.

SOURCES: DAWN, OAS, SAMHSA; TEDS database

**Exhibit 1b. Other Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 1996-June 2003**

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine and Other Drugs
Multisubstance Combinations	Older users combine with heroin, alcohol	Older users combine with cocaine, alcohol	Joints dipped in PCP	Marijuana commonly used in combination
Market Data (2002–June 2003)	Powder \$100–\$125/g, 70% pure; Crack \$20/rock, 50–90% pure; eightball \$300	\$10/cap, \$40/bundle; \$1.54/mg pure, \$250–\$600/g, 13.8% pure, Mexican heroin, sparse SWA	Sinsemilla \$500–\$1,200/lb, 20% THC; Imported \$2,000–\$4,000/lb	Methamphetamine \$100/g, Mexican (20–30%) and local (70–80% pure); hydromorphone \$30–\$75/4-mg pill; LSD blotters \$2–\$7/35 microgram, OxyContin \$40/80 mg
Qualitative Data	Readily available, urban choice	Younger users, 1/3 <25	Readily available, 2/3 in Tx < 25	Club drug gaining presence, rural/ suburban users of amphetamine
Other Data of Note	N/R <sup>1</sup>	SWA heroin noted	N/R	Methamphetamine lab seizures plateaued

<sup>1</sup>N/R=Not reported.

SOURCE: DEA; client ethnographic information

**Exhibit 2. HIV-Positive Test Results in the St. Louis Metropolitan Area by Exposure Category, Gender, Race/Ethnicity, and Age: Year-to-Date and Cumulative Totals Reported Through December 2002**

Category	HIV-Positive Test Results			
	Jan 2002–December 2002		Cumulative Through December 2002	
	Number	(Percent)	Number	(Percent)
Exposure Category				
MSM	38	(26.0)	1,310	(59.5)
IDU	6	(4.1)	143	(6.5)
IDU/MSM	2	(1.4)	78	(3.5)
Hemophilia	0	(0.0)	11	(0.5)
Heterosexual	43	(29.5)	363	(16.5)
Blood transfusion	1	(0.6)	5	(0.2)
Perinatal	3	(2.0)	21	(1.0)
Unknown	53	(36.3)	270	(12.3)
<b>Total</b>	<b>146</b>		<b>2,201</b>	
Gender and Race/Ethnicity				
Male				
White	49	(33.6)	816	(37.0)
African-American	53	(36.3)	946	(43.0)
Hispanic	5	(3.4)	24	(1.1)
Other	13	(8.9)	19	(0.8)
Unknown	–	(0)	15	(0.7)
Female				
White	7	(4.8)	73	(3.3)
African-American	17	(11.6)	299	(13.6)
Hispanic	0	(0.0)	4	(0.2)
Other	2	(1.4)	5	(0.2)
Age				
12 and younger	2	(1.4)	19	(0.8)
13-19	9	(6.1)	120	(5.5)
20-29	44	(30.1)	742	(33.7)
30-39	53	(36.3)	798	(36.3)
40-49	28	(19.2)	311	(14.1)
50 and older	10	(6.8)	83	(3.8)
Unknown	–	(0)	128	(5.8)
<b>Total</b>	<b>146</b>		<b>2,201</b>	

SOURCE: St. Louis Metropolitan AIDS Program

**Exhibit 3. AIDS Cases in the St. Louis Metropolitan Area by Exposure Category, Gender, Race/Ethnicity, and Age: Year-to-Date and Cumulative Totals Reported Through December 2002**

Category	AIDS Cases			
	Jan. 2002-Dec. 2002		Cumulative Through December 2002	
	Number	(Percent)	Number	(Percent)
Exposure Category				
MSM	60	(41.1)	1,058	(25.4)
IDU	0	(0.0)	87	(2.1)
IDU/MSM	0	(0.0)	73	(1.8)
Hemophilia	1	(0.7)	30	(0.7)
Heterosexual	43	(29.5)	197	(4.7)
Blood transfusion	0	(0.0)	20	(0.5)
Perinatal	0	(0.0)	0	(0.0)
Unknown	42	(28.8)	2,693	(64.8)
Gender and Race/Ethnicity				
Male				
White	57	(39.0)	1,984	(47.7)
African-American	72	(49.3)	1,531	(36.8)
Hispanic	0	(0.0)	39	(0.9)
Other	0	(0.0)	12	(0.2)
Unknown	0	(0.0)	184	(4.4)
Female				
White	1	(0.7)	95	(2.3)
African-American	16	(11.0)	306	(7.3)
Hispanic	0	(0.0)	4	(0.1)
Other	0	(0)	3	(0.1)
Age				
12 and younger	0	(0.0)	17	(0.4)
13-19	4	(2.7)	28	(0.6)
20-29	20	(13.7)	623	(15.0)
30-39	67	(45.9)	1,320	(31.7)
40-49	39	(26.7)	567	(13.6)
50 and older	16	(11.0)	200	(4.8)
Unknown	0	(0.0)	1,403	(33.7)
<b>Total</b>	<b>146</b>		<b>4,158</b>	

SOURCE: St. Louis Metropolitan AIDS Program

# Indicators of Drug Abuse in San Diego County, California

Michael Ann Haight, M.A.<sup>1</sup>

## ABSTRACT

*Cocaine indicators were relatively stable, with the exception of positive tests among arrestees, which decreased in 2003. Heroin indicators continued to be mixed, with small increases in heroin detection in overdose deaths and treatment admissions, but small decreases in ED mentions. Marijuana maintained a strong presence in the area, with increases in ED mentions, treatment admissions, and positive drug screens among adult females. Methamphetamine continued to be the primary stimulant used in San Diego County, with increases in overdose deaths, treatment admissions, and positive tests among adult and juvenile arrestees in 2003. In the DAWN data, conversely, methamphetamine mentions were surpassed by those for amphetamines. Through October 2003, there were 4,066 reported adult and adolescent AIDS cases; 13 percent were among injection drug users.*

## INTRODUCTION

San Diego County, home to an estimated 3 million inhabitants, is now the third largest county in California. According to 2000 census figures, the county's population is predominantly White (55 percent), with African-Americans constituting 6 percent, Asians 9 percent, and Hispanics 27 percent of the total population. The Hispanic population is growing most rapidly. Twenty-five percent of the population are younger than 18, 11 percent are age 18–24, 53 percent are age 25–64, and 11 percent are older than 64.

San Diego enjoys geographic diversity, with the Pacific Ocean to the west and mountains to the east and north. There are many small airfields and an international airport in San Diego County. The geography, coupled with three busy border crossings, contributes to the county's drug abuse problems. The climate is ideal for cultivating marijuana, and the many miles of coastline and border enable smuggling activities. Widespread rural areas provide ample secluded spots for manufacturing methamphetamine.

## Data Sources

This report presents available data from 1996 through 2002, unless otherwise noted. Data compiled for this report are from the following sources:

- **Drug-involved death data** are from the San Diego County Medical Examiner (ME) data files for 1996–2002. Mortality data for narcotic analgesics and club drugs were obtained from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), Mortality Data from the Drug Abuse Warning Network (DAWN), 2001.
- **Emergency department (ED) drug mentions data** were provided by DAWN, OAS, SAMHSA, and are based on Emergency Department Trends From the DAWN, Final Estimates, 1995–2002.
- **Treatment admissions data** are provided by the San Diego County Alcohol and Drug Data System (SDCADDs) for 1996–2002. The system is an admission-based data set; individuals can account for multiple admissions. Local methadone programs under private administration are not included, thus deflating total opiate admissions. Preliminary data for the first half of 2003 are also presented.
- **Arrestee drug testing data** are from the Arrestee Drug Abuse Monitoring (ADAM) program, Criminal Justice Research Unit, San Diego Association of Governments (SANDAG), for 1996–2002. Preliminary data for three quarters of 2003 were annualized and are discussed as well.
- **Forensic laboratory data** were provided by the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration, for the period of October 2002 through September 2003.
- **Acquired immunodeficiency syndrome (AIDS) data** were taken from the San Diego County Health and Human Services Agency, "Human Immunodeficiency Virus (HIV) Surveillance Report," October 31, 2003.

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## DRUG ABUSE PATTERNS AND TRENDS

**Cocaine/Crack**

Cocaine/crack indicators were relatively stable between 2001 and 2002, except for positive tests among female arrestees, which increased. Accidental overdose deaths involving cocaine, however, decreased from 57 in 1996 to 26 in 2002, a 54-percent decrease, although, from 2001 to 2002, cocaine's presence in accidental overdoses fell only slightly, from 28 to 26 decedents (exhibit 1). In five of the 2002 cases (18 percent), cocaine was the only drug. Cocaine was most frequently combined with heroin and/or alcohol. The majority of cocaine decedents were male (73 percent), White (50 percent), and age 35 or older (65 percent).

There were 807 ED mentions of cocaine in 2002 (exhibit 2), accounting for 7 percent of total mentions. Between 2000 and 2002, cocaine ED mentions decreased by 19.5 percent. The typical visitor that mentioned cocaine as the reason for the visit to the ED was a White (55 percent) male (63 percent) who was age 35 or older (61 percent). The majority of cocaine ED mentions occurred within multiple drug episodes (72 percent), and dependence was the reason most often given as the drug use motive. In 37 percent of the cases, the most common reason for contacting the ED was chronic effects.

In 2002, primary cocaine admissions to county-funded treatment represented 8 percent of total admissions and totaled 1,429. From 1996 to 2002, primary cocaine admissions were relatively stable, increasing by 2 percent (exhibit 3). The majority of cocaine admissions were male (63 percent), African-American (61 percent), and age 35 or older (65 percent) (exhibit 4). The mean age was 38.3 years. Eighty-two percent reported smoking as the primary means of use. While the majority of these admissions had been using cocaine for 11 years or more, 3 percent admitted use of less than 1 year, and another 17 percent had been using for 1–3 years. Thirty-nine percent of treatment admissions were referred by the criminal justice system. Slightly more than one-third reported no secondary drug use, but for those who did use other drugs, the majority used alcohol. In the first half of 2003, there were 592 primary cocaine admissions, accounting for 7 percent of total admissions. There were few demographic changes in the first half of 2003, except for a 3-percent increase in admissions of Whites and a 5-percent decrease in crack users.

The presence of cocaine among adult male arrestees

has steadily declined over the 1996–2002 period, when 12.7 percent tested positive for the drug (exhibit 5). The proportion of cocaine-positive female arrestees, however, ranged from a low of 17 percent in 1998 to a high of 26 percent in 2000 (exhibit 6). In 2002, 21 percent of women were positive for cocaine, up from 17 percent in 2001. Among the female arrestees positive for cocaine, 51 percent were African-American, compared with 37 percent of males. Preliminary data from the first three quarters of 2003 (which have been annualized) suggested declines in the presence of cocaine among adult arrestees in 2003, with 10 percent of males and 15 percent of females testing positive for the drug. Although the national study of adolescent arrestees was discontinued in 2002, San Diego County was fortunate to obtain local funding to continue the ADAM project with no interruptions in data collection. Few adolescents have tested positive for cocaine in any time period. The findings for 2002 and 2003 were no exception, with 2 percent of juvenile boys and girls showing recent use of cocaine in 2002 and 3 percent in 2003.

In spring 2003, 1 gram of cocaine could be purchased for \$40–\$80. Cocaine seizures at the Imperial and San Diego County borders fell from 3,709 kilograms in 2001 to 2,875 in 2002. According to NFLIS data for 2002, 12.7 percent of the 13,324 drug items analyzed were cocaine.

**Heroin**

Heroin indicators were mixed in 2002, with overdose deaths and treatment admissions rising and ED mentions and heroin-positive tests among adult arrestees declining. Heroin was present in 107 (54 percent) of the 198 accidental overdose deaths in 2002 (exhibit 1). Although heroin's presence in overdose deaths decreased 24 percent from 1996 to 2002, the 2002 number represented a 3-percent increase from 2001. Among these deaths, 74 percent were male, 50 percent were White, 19 percent were African-American, and 25 percent were Hispanic. Close to three-quarters (71 percent) were age 35 or older. In 68 cases, heroin was found combined with other drugs, most often alcohol. Methamphetamine, cocaine, and narcotic analgesics were also frequent combinations.

ED mentions for heroin declined significantly by 31 percent from 2000 ( $n=1,031$ ) to 2002 (708) (exhibit 2), when they accounted for 6 percent of total mentions. That proportion was unchanged from 2001. Of the 2002 mentions, 68 percent were male, 63 percent were White, 11 percent were African-American, and 16 percent were Hispanic. Sixty-four percent were

age 35 or older. Unlike cocaine, heroin was most often involved in a single-drug ED episode (71 percent), and dependence was the most frequently reported motive for use (80 percent).

Primary heroin admissions increased 10 percent from 2001 to 2002, rising from 1,493 to 1,640 (exhibit 3). These admissions represented 9 percent of total admissions. The typical heroin admission was a White (50 percent) male (69 percent) with a mean age of 35.7 (exhibit 4). Hispanics, at 38 percent, were overrepresented in this population. Although the heroin-using population in San Diego County is historically an injecting population, with 87 percent of the 2002 heroin users in treatment injecting, the proportions of smokers (7.4 percent) and sniffers (3.5 percent) are increasing. Primary heroin admissions reported a long history with their chosen drug, with 21 percent being new users and more than one-half reporting use of 11 years or more. About one-third reported no secondary drug use, but, of those who did report such use, cocaine, methamphetamine, and alcohol are the preferred secondary drugs. More than one-third were referred by the criminal justice system.

Six percent of male arrestees in the ADAM program in 2002 tested positive for opiates, compared with 8 percent in 2001 (exhibit 5). Preliminary data showed the proportion of males testing opiate-positive was stable in 2003. Among female arrestees in the ADAM program, 6 percent tested opiate-positive in 2002, compared with 9 percent in 2001 and 9 percent according to preliminary 2003 data (exhibit 6). Among males, 8 percent of Whites were positive for heroin, compared with 5 percent of African-Americans and 4 percent of Hispanics. Women showed similar patterns, with 7 percent of White females testing opiate-positive, compared with 5 percent of African-Americans and 4 percent of Hispanics. In 2002, no juveniles were positive for opiates, a consistent finding over time. In no time period have more than 2 percent of juveniles shown recent heroin use.

Heroin represented 2 percent of the 13,324 drug items analyzed by NFLIS in 2002. Black tar heroin is predominant in the San Diego area. A gram could be purchased for \$60 in spring 2003, and the price of an ounce ranged from \$600 to \$1,200.

### Other Opiates/Narcotics

Use of narcotic analgesics, particularly oxycodone and hydrocodone, was cause for concern by some groups this past year. While ED data are available for these drugs, data to support the concern and focus on

them comes primarily from anecdotal information. The number of narcotic analgesics/combinations ED mentions in 2002 totaled 1,169, a 10.4-percent decrease since 2001, but a 151.9-percent increase since 1995 ( $n=464$ ). The DAWN ME data showed a 14-percent decrease in narcotic analgesic-involved deaths between 1997 and 2001, as well as a decrease of 8 percent between 2000 and 2001. While there is reason to carefully monitor these trends, there is little reason for alarm at this point.

### Marijuana

Marijuana indicators continued to rise in 2002, although the rate of growth has slowed. The ME rarely tests for the presence of marijuana, so there were no data for accidental or drug-involved marijuana deaths.

ED mentions of marijuana in 2002 ( $n=1,174$ ) reflected a significant increase of 144.6 percent from 1995 (955) (exhibit 2) and accounted for 10 percent of total mentions. In 2002, as in earlier years, the typical visitor to the ED for marijuana was a White (64 percent) male (68 percent) age 35 or older (37 percent) or between the ages of 18 and 25 (32 percent). In fact, 44 percent of the marijuana mentions came from individuals between the ages of 6 and 25. As in earlier years, the majority of 2002 marijuana mentions were included in multiple drug episodes (76 percent), and the most common reason given for use was psychic effects (46 percent). In 44 percent of the cases, unexpected reaction to the drug was given as the reason for coming to the ED.

Over the 7 years discussed in this report, the numbers of marijuana admissions to county-funded treatment programs have grown tremendously, rising from 681 admissions in 1996 to 3,564 in 2002 (a 423-percent increase) (exhibit 3). By 2002, growth had slowed, with the number of admissions rising by 13 percent since 2001. In 2002, marijuana accounted for 20 percent of total admissions. Men outnumbered women in treatment, with 79 percent of 2002 admissions being males (exhibit 4). Within this population, African-Americans, at 17.5 percent, and Hispanics, at 35 percent, were overrepresented; Whites were underrepresented at 40 percent. This is a young population, with 60 percent being younger than 18 and a mean age of 21 (median age was 17). Almost one-half (46 percent) of 2002 marijuana admissions had been using the drug less than 3 years. In spite of the young age of the average marijuana admission, the population was heavily involved with the criminal justice system, with 69 percent referred by the criminal justice sys-

tem. Approximately two-thirds reported use of other drugs, the most common being alcohol. Increases in the number of marijuana admissions are the direct result of policy decisions at the county level. Concerns about the number of youth detained at the Juvenile Detention Center who tested positive for marijuana led policymakers, through wide multiagency cooperation and planning, to develop a demand-for-treatment program initiative for adolescents, particularly those with criminal justice problems. The result of that initiative was increased numbers of adolescents in treatment. Preliminary data from the first half of 2003 suggested that marijuana treatment admissions would rise slightly this year.

In 2002, 38 percent of male arrestees in the ADAM study tested marijuana-positive, slightly higher than the proportion in 2001 (exhibit 5). The proportion of female arrestees testing marijuana-positive in 2002 was 33 percent, 5 percentage points higher than in 2001 (exhibit 6). The preliminary data for 2003, however, show a decline to 29 percent of female arrestees testing marijuana-positive. Marijuana-positive screens among males were disbursed relatively evenly across various ethnic groups, with 33 percent of African-Americans, 38 percent of Whites, and 30 percent of Hispanics testing positive for the drug. Among women, there was more variation, with 44 percent of African-American, 43 percent of White, and 33 percent of Hispanic women testing marijuana-positive. Sixty-three percent of male arrestees younger than 21 showed recent use, compared with 46 percent of women in the same age bracket. Thirty-two percent of juveniles tested positive for marijuana in 2002, compared with 45 percent in 2001 and 47 percent in 1996. Preliminary data from 2003 suggested a large increase, with 48 percent of the juvenile arrestees positive for marijuana.

Of the 13,324 drug items analyzed by NFLIS in 2002, marijuana accounted for 52.9 percent. Marijuana prices remained stable at \$60–\$100 per ounce. The THC content was not reported.

### Stimulants

Methamphetamine continued to be the primary stimulant used in San Diego County as well as the drug that drew the most media attention. Indicators for methamphetamine were mixed in 2002, with increases in overdose deaths and treatment admissions, decreases in ED mentions, and stable levels of use among adult arrestees between 2001 and 2002, but increases from 2002 to 2003. For this report, methamphetamine and amphetamine were combined. Only when

amphetamine numbers are equal to or higher than the methamphetamine numbers will amphetamine be discussed separately.

Methamphetamine's presence among accidental overdose deaths increased from 48 deaths in 2001 to 53 in 2002, a 10-percent increase (exhibit 1). Over the entire 1996–2002 period, methamphetamine's detection in overdose deaths increased by 20 percent. Sixty-eight percent of the decedents were male, and 83 percent were White. More than one-half (68 percent) were age 35 or older. Heroin and alcohol were the most commonly detected other drugs.

Methamphetamine ED mentions totaled 598 in 2002 (exhibit 2). Amphetamine ED mentions increased significantly between 1995 and 2002, 2000 and 2002, and 2001 and 2002, when they totaled 1,143. There is no clear explanation for this phenomenon, since amphetamine does not appear to play a prominent role in the other indicators. In 2002, there were almost twice as many ED mentions for amphetamine as there were for methamphetamine (1,143 vs. 598). The typical methamphetamine ED visitor in 2002 was a White (66 percent) male (71 percent) age 35 or older (42 percent). Compared with methamphetamine ED visitors, the typical amphetamine ED visitor was slightly more likely to be White (72 percent) and less likely to be male (60 percent), as well as more likely to be age 35 or older (47 percent). The methamphetamine visitor was more often a single drug user (58 percent), while the amphetamine user was more often involved with multiple drugs (61 percent). Among methamphetamine ED mentions, the drug use motive was dependence for 53 percent and psychic effects for 32 percent, compared with 29 and 27 percent, respectively, among amphetamine ED clients.

Methamphetamine was the most often reported primary drug in the treatment system, accounting for 6,973 of the 2002 treatment admissions, an increase of 22 percent from 2001 and 122 percent from 1996 (exhibit 3). It accounted for 39 percent of total admissions in 2002. The proportion of males to females has changed over time. Throughout the 1990s, approximately equal numbers of men and women were admitted to treatment for methamphetamine. By 2002, however, more than one-half of all methamphetamine admissions were male (58 percent) (exhibit 4). The majority were White (59 percent), followed by Hispanics at 26 percent and African-Americans at 6 percent. The mean age was 32.6, and the primary means of using methamphetamine was smoking (63 percent), followed by inhaling and injecting (18 and 16 percent, respectively). More than one-quarter

(27 percent) reported secondary use of marijuana, and one-quarter used alcohol. Since the inception of Proposition 36, the voter initiative that mandated treatment for nonviolent drug offenders, methamphetamine admissions have increased and, in 2002, 44 percent reported criminal justice referral (although a much larger proportion [77 percent] reported being under some legal sanction). Preliminary data from 2003 suggested additional increases in methamphetamine admissions, with 40 percent of the 2003 admissions reporting methamphetamine as primary drug.

Methamphetamine-positive tests among male arrestees in the ADAM program were stable in 2002 (at 32 percent), but preliminary 2003 data reflect an increase to 38 percent (exhibit 5). The proportion of methamphetamine-positive female arrestees was also stable in 2002 (37 percent), and preliminary 2003 data reflected an increase in methamphetamine-positive screens among this group (48 percent) (exhibit 6). In terms of ethnicity, 39 percent of White males, 34 percent of Hispanic males, and 11 percent of African-American males were positive for methamphetamine. Among female arrestees, 46 percent of Whites, 11 percent of African-Americans, and 41 percent of Hispanics tested methamphetamine-positive. Recent methamphetamine use was common across all age groups, but at lower levels for men and women younger than 21. For men, roughly one-third were positive in the 26–30, 31–35, and 35-and-older age groups. For women, more than 40 percent were positive in all age categories, except those younger than 21 (19 percent) and those older than 35 (33 percent). The proportion of methamphetamine-positive screens among juvenile arrestees fell from 2001 (11 percent) to 2002 (7 percent). Preliminary data from the first three quarters of 2003 indicate that methamphetamine-positive screens among juveniles increased to 15 percent.

Methamphetamine accounted for 25.2 percent of the 13,324 items analyzed by NFLIS in 2002, second only to marijuana. The drug remained widely available, and in spring 2003, the price for 1 gram ranged from \$50 to \$75; an eightball (1/8 ounce) could be purchased for \$100–\$125.

### Alcohol

Alcohol plays a major role in San Diego County's drug problems, as evidenced by increases in alcohol's presence in overdose deaths, ED mentions, and treatment admissions. In 2002, alcohol was present in 102 (52 percent) of the accidental overdose deaths (exhibit 1). In only 30 percent of cases was alcohol the only drug found; it was often combined with heroin and

methamphetamine, as well as other drugs. The majority of the alcohol deaths were male (68 percent), White (62 percent), and age 35 or older (75 percent).

In 2002, there were 1,704 ED mentions of alcohol-in-combination with other drugs, accounting for 15 percent of total mentions. These numbers represent a 5-percent decrease from 2000 to 2002. The typical ED visitor in this category was a White (71percent) male (61 percent) age 35 or older (53 percent).

The proportion of primary alcohol admissions within the treatment population has diminished, falling 8 percent from 1996 to 2002 and 3 percent from 2001 to 2002, when there were 3,972 primary alcohol admissions. Of these, 2,338 were for alcohol with other drug use. The primary alcohol admission was a White (62 percent) male (71 percent) age 35 or older (54 percent). The age of first use was 15.3, and the average years of use prior to this treatment episode were 16.1. Preliminary data from 2003 showed that alcohol admissions will be almost equivalent to the number and proportion of marijuana admissions, underscoring a radical change in the treatment population over the past decade, when alcohol was second only to methamphetamine.

While the ADAM program does not test for alcohol, other indicators not discussed in this report (such as driving under the influence and public inebriate arrests) verify alcohol's role in overall problem indicators for substance abuse.

### Club Drugs

Club drugs continued to receive media attention in 2002. Data to support the concern and focus on these drugs comes primarily from anecdotal information. Hard data were available only from the DAWN ME report for 2001 and from the annual DAWN ED report.

While the numbers of ED mentions for club drugs are relatively small, there were some significant changes during the 1995–2002 period. The number of ED mentions of methylenedioxymethamphetamine (MDMA or ecstasy) increased significantly by 400 percent from 1995 ( $n=6$ ) to 2002 (30) (exhibit 7). However, the numbers of mentions declined significantly from both 2000 (47) and 2001 (52). The number of ED mentions of gamma hydroxybutyrate (GHB) increased 154.5 percent between 1995 ( $n=22$ ) and 2002 (56). ED mentions for flunitrazepam (Rohypnol) totaled 5 in 2002, a decrease from 8 in 2000, while ED mentions of ketamine increased by

66.7 percent between 2000 and 2002 and by 100 percent between 2001 and 2002 ( $n=20$ ). According to the 2001 DAWN Mortality Report, there were increases in combined club drug deaths for 1998–2001. There was an 80-percent increase in such mentions over the entire period and a 200-percent increase from 2000 to 2001. While it appears that deaths related to these drugs have increased over time, there was enough year-to-year fluctuation to warrant caution when discussing the increases.

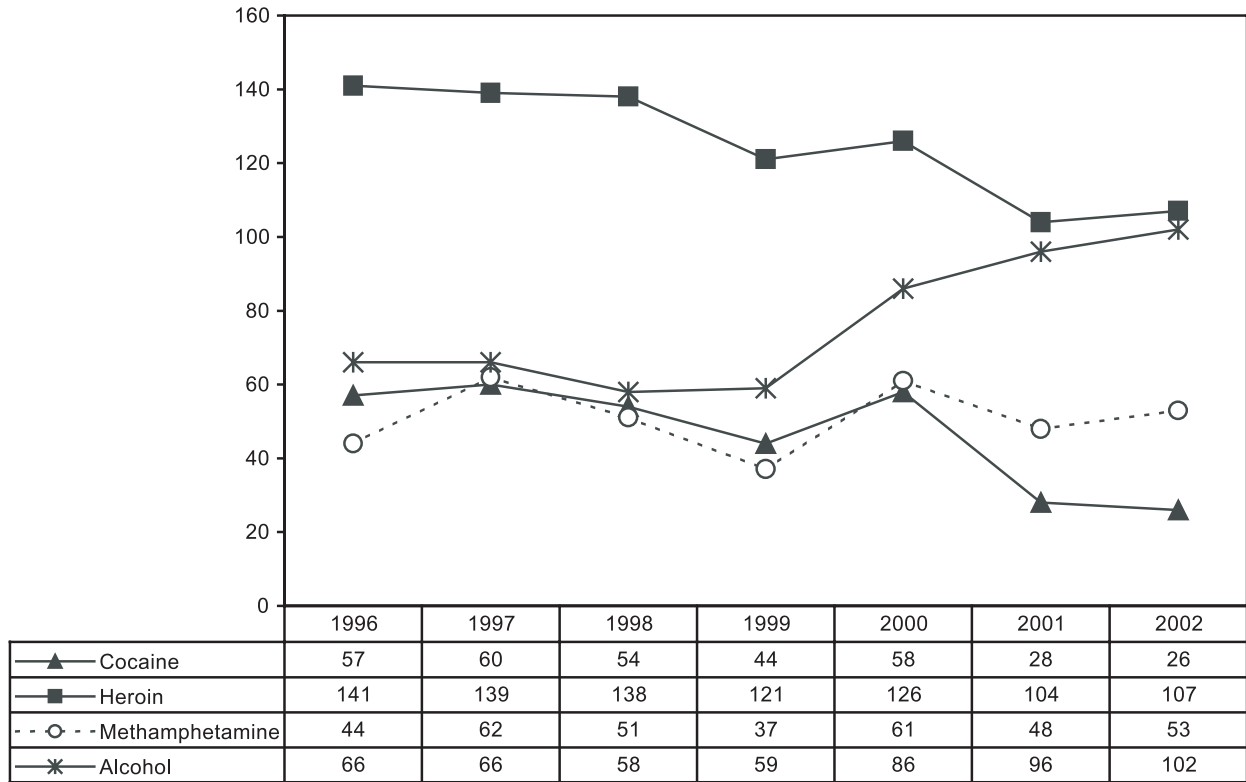
#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

As of October 31, 2003, there were 4,066 cumulative adult and adolescent AIDS cases in San Diego County. Seventy-two percent of the cases occurred among men who have sex with men (MSM). Injection drug users (IDUs) accounted for 6 percent of the cases, the dual category of MSM/IDUs represented 7 percent, and heterosexual contact constituted another 11 percent.

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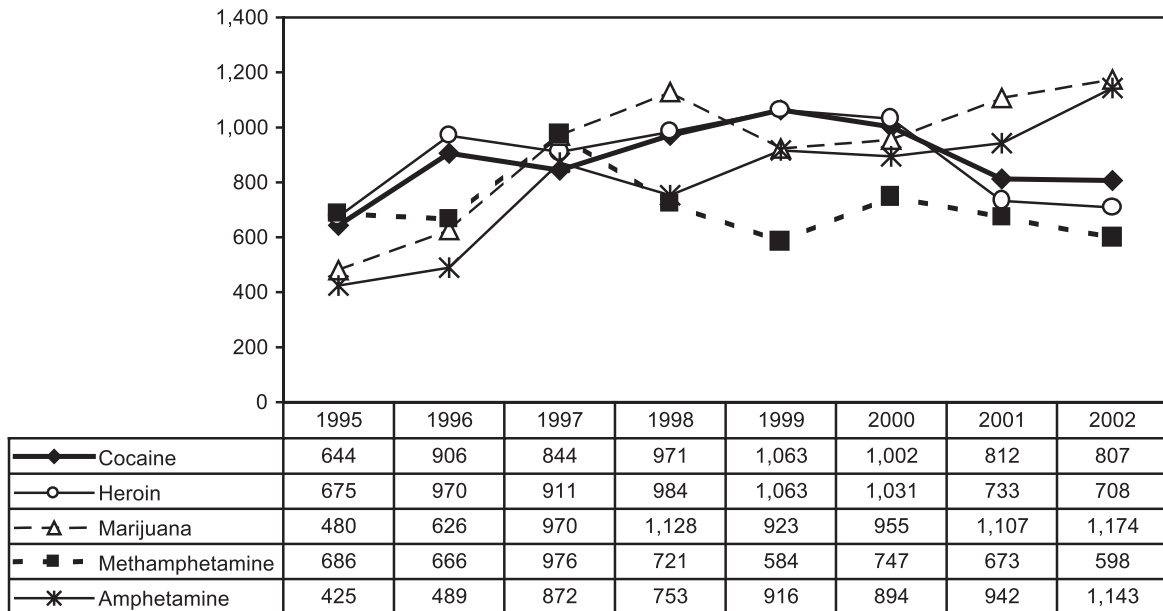
*For inquiries concerning this report, please contact Michael Ann Haight, Silver Gate Group (for the County of San Diego, Alcohol and Drug Services), Phone: (619) 920-6311, E-mail: michaelhaight@cox.net.*

**Exhibit 1. Number of Accidental Overdose Deaths for Selected Drugs in San Diego County: 1996–2002**



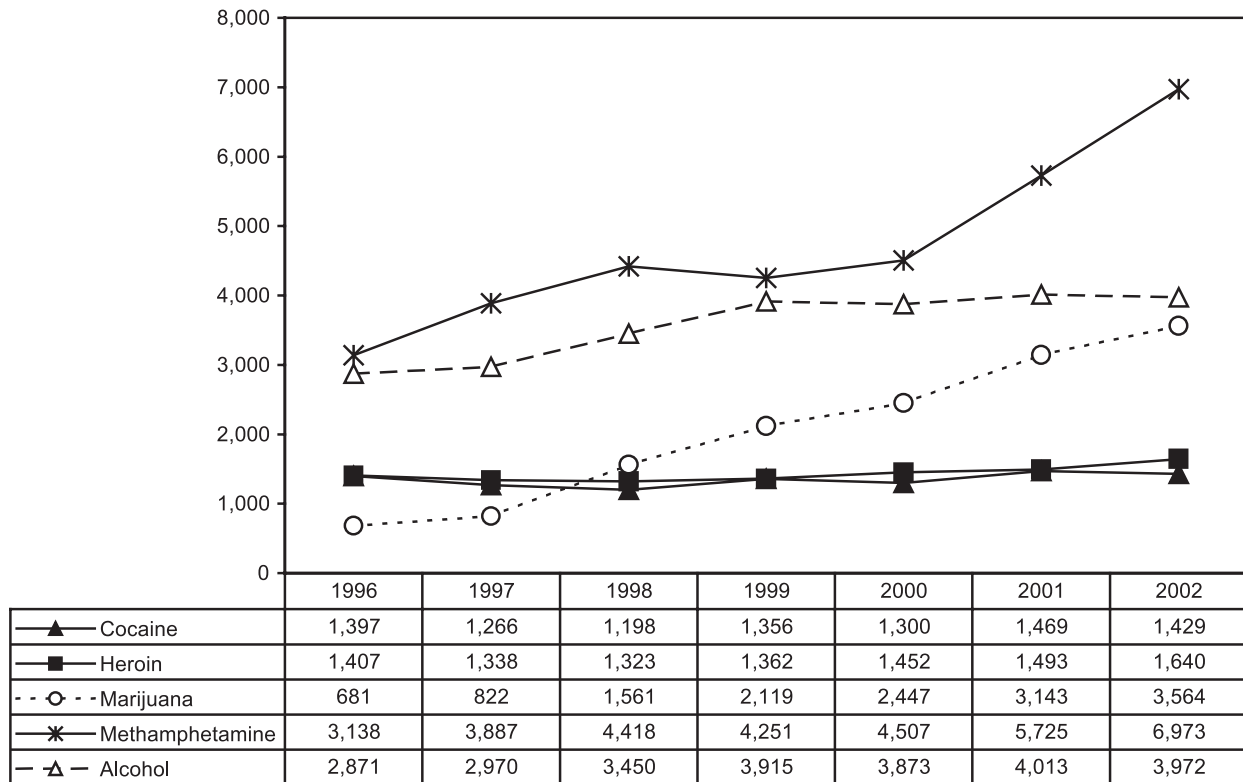
SOURCE: San Diego County Medical Examiner

**Exhibit 2. Number of Emergency Department Mentions of Selected Drugs in San Diego: 1995–2002**



SOURCE: DAWN, OAS, SAMHSA

**Exhibit 3. Number of Treatment Admissions for Selected Drugs in San Diego County: 1996–2002**



SOURCE: San Diego County Alcohol and Drug Data System, San Diego County Health and Human Services Agency, Alcohol and Drug Services

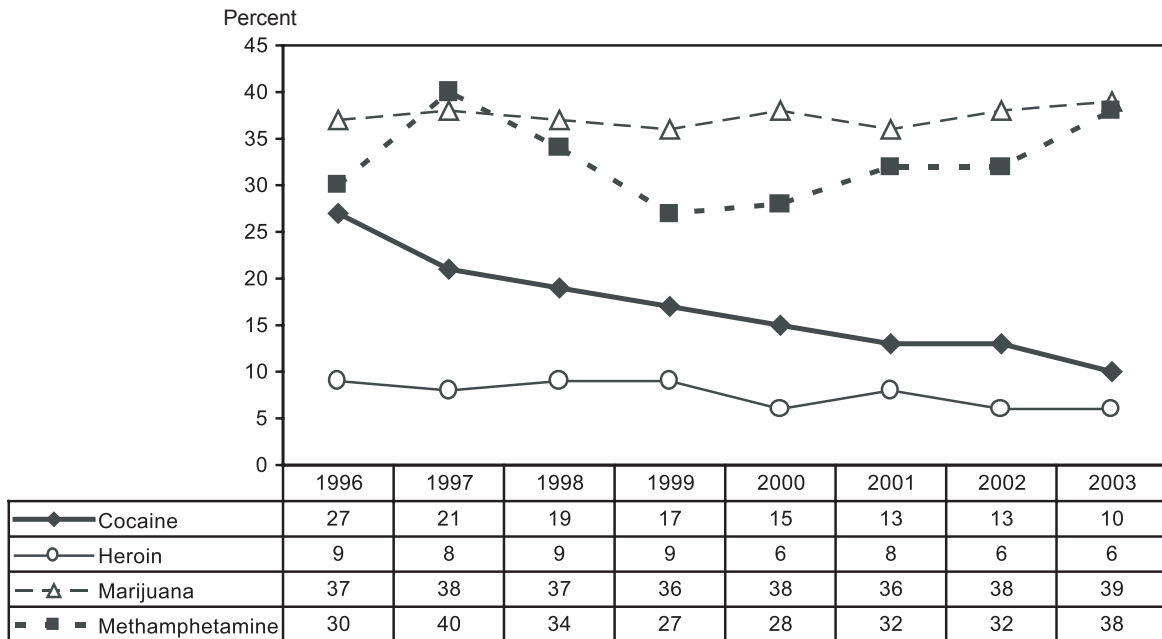
**Exhibit 4. Characteristics of Clients Admitted to County-Funded Treatment Programs by Selected Drugs and Percent, San Diego County: 2002**

Total Admissions (N=18,009)	Cocaine (n=1,429)	Heroin (n=1,640)	Marijuana (n=3,564)	Methamphetamine (n=6,973)	Alcohol (n=3,972)
Gender					
Male	62.7	69.3	78.6	57.8	71.3
Female	37.3	30.7	21.4	42.2	28.7
Race/Ethnicity					
White	24.7	50.2	40.2	59.2	61.7
African-American	61.0	6.7	17.5	5.9	11.9
Hispanic	10.6	38.2	34.9	25.8	19.9
American Indian/Asian/Other	2.7	3.3	4.7	7.3	5.3
Unknown	0.9	1.6	2.7	1.8	1.1
Age					
Younger than 18	2.2	0.3	59.8	5.4	11.1
18–25	7.7	23.0	19.6	21.4	9.6
26–34	19.0	19.1	9.2	31.2	18.7
35 and older	64.7	51.6	11.5	42.0	54.3
Mean Age (Average in Years)	(38.3)	(35.7)	(21.0)	(32.6)	(35.9)
Route of Administration					
Smoking	82.3	7.4	97.1	63.0	
Sniffing	12.7	3.5	0.0	18.2	
Injecting	4.1	87.1	0.0	16.4	
Other	0.9	2.0	2.3	2.4	100.0
Secondary Drug	Alcohol 33.3	Cocaine 20.0	Alcohol 39.0	Marijuana 27.2	Marijuana 24.4
Tertiary Drug	Marijuana 10.9	Alcohol 12.7	Alcohol 9.6	Alcohol 12.5	Marijuana 9.3
Criminal Justice Referred	39.0	35.0	69.0	44.0	50.0
First Treatment	27.0	21.0	55.0	35.0	35.0
Age of First Use (Average in Years)	24.0	18.0	13.6	20.1	15.3
Years of Problem Use (Average in Years)	11.7	14.4	5.6	10.1	16.1

SOURCE: San Diego County Alcohol and Drug Data System (SDCADDSS), San Diego County Health and Human Services, Alcohol and Drug Services



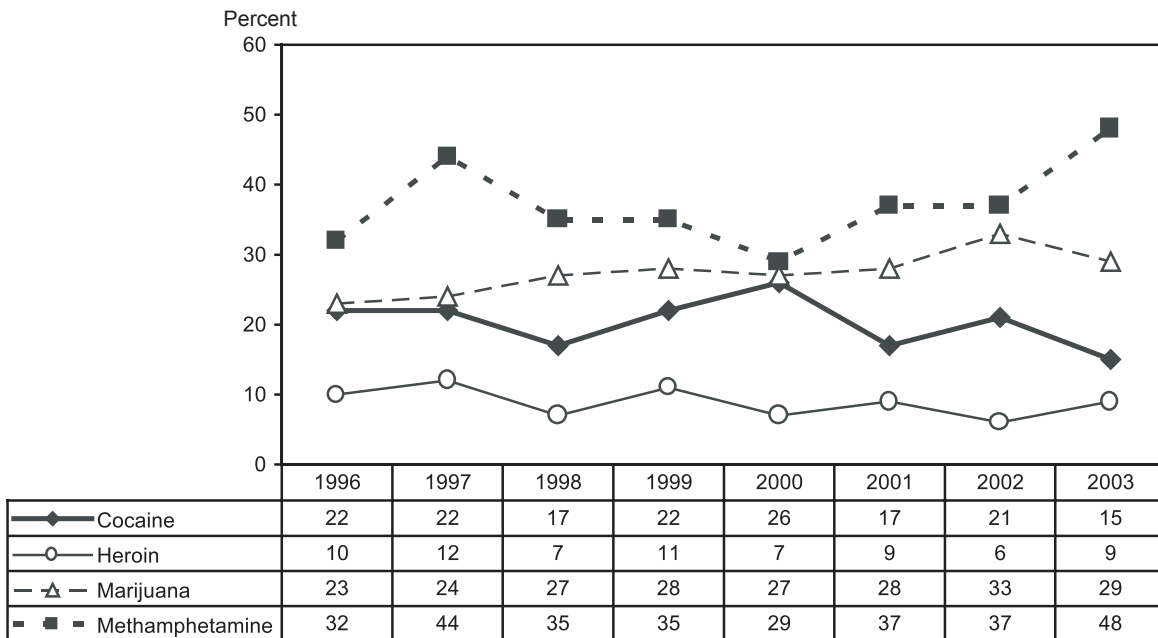
**Exhibit 5. Proportion of Male Arrestees Testing Positive for Selected Drugs: 1996–2003<sup>1</sup>**



<sup>1</sup>Data for 2003 are preliminary

SOURCE: San Diego County Association of Governments Criminal Justice Unit (Arrestee Drug Abuse Monitoring):

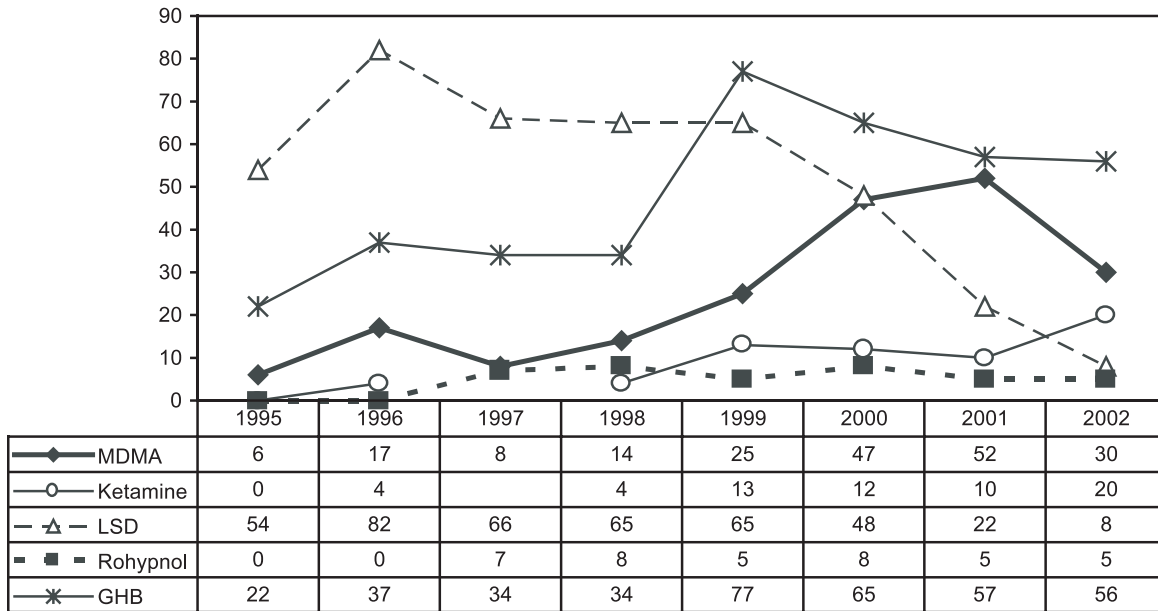
**Exhibit 6. Percent of Female Arrestees Testing Positive for Selected Drugs: 1996–2003<sup>1</sup>**



<sup>1</sup>Data for 2003 are preliminary

SOURCE: San Diego County Association of Governments Criminal Justice Unit (Arrestee Drug Abuse Monitoring)

**Exhibit 7. Number of Emergency Department Mentions of Selected “Club” Drugs: 1995–2002**



SOURCE: DAWN, OAS, SAMHSA

# Patterns and Trends of Drug Use in the San Francisco Bay Area

John A. Newmeyer, Ph.D.<sup>1</sup>

## ABSTRACT

*In December 2003, the author conducted a comprehensive review of indicators of use of illicit substances in the San Francisco Bay area. Indicators of cocaine use were down during the mid-1990s, briefly up during the 1998–2001 period, and were again down since 2001. Heroin use indicators consistently point to a decline in use from the 1999 peak. Injection remains by far the predominant mode of usage. The average age of cocaine users and heroin users entering EDs continues to increase. There are strong indications of an upsurge in use of oxycodone and hydrocodone. Marijuana indicators, which had risen until 2001, have fallen during the past 2 years. Treatment admissions, ED mentions, and local observers' reports are consistent in showing an upward trend in methamphetamine use since 2001. Indicators of use of 'club drugs' reached peaks in 2001 and then declined in 2002.*

## 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 4,180,000 as of July 2002. 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—one resident in five—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.

Since 1994, there has been a steep rise in the costs of rental housing in the bay area, especially in San Francisco, Marin, and San Mateo Counties. This has caused significant out-migration of lower income people, which may be exerting downward pressure on local drug-use prevalence. However, partly as a result of reverses in high-technology industries, San Francisco County suffered an increase in its unemployment rate from 2 to 6 percent in the last 3 years. This rise in unemployment has not, thus far, been reflected in consistent changes in substance use prevalence.

### Data Sources

The sources of data for the drug abuse indicators are described below:

- **Emergency department (ED) drug mentions data** were obtained from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for three counties of the San Francisco Bay area (San Francisco, Marin, and San Mateo) from 1997 through 2002.
- **Treatment admissions data** were available for all five bay area counties for calendar years (CYs) 1999 to 2001 and for fiscal year (FY) 2003 (July 2002–June 2003). These data were compiled by the California Department of Alcohol and Drug Programs (DADP).
- **Medical examiner (ME) data** on drug mentions in decedents in three counties (San Francisco, Marin, and San Mateo) were provided by the DAWN mortality system for CY 2001, along with comparable data for 1996–2000. The DAWN system covered 100 percent of the metropolitan statistical area (MSA) jurisdiction and 100 percent of the MSA population in 2000.
- **Reports of arrests** for drug-law violations and counts of reported burglaries were provided by the San Francisco Police Department (SFPD) for 2001, 2002, and the first 10 months of 2003.

<sup>1</sup>The author is affiliated with Haight-Ashbury Free Clinics, Inc., San Francisco, California.

- **Arrestee drug testing data** are from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice, for San Jose and Sacramento for 2002 for adult males.
- **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 2001 were compared with those for 1994–2000. Data on trafficking in heroin and other drugs were available from the National Drug Intelligence Center’s report, *Narcotics Digest Weekly*, July 15, 2003.
- **Ethnographic information** was obtained through interviews with treatment program staff and outreach workers in December 2003. Their observations were compared with those they made in November 2002 and June 2003 and pertained mostly to San Francisco County.
- **The ISAP First-Year Evaluation of Proposition 36** was published by Dr. Douglas Longshore, of the UCLA Integrated Substance Abuse Programs.
- **Acquired immunodeficiency syndrome (AIDS) surveillance data** were provided by the San Francisco Department of Public Health (SFDPH) and covered the period through September 30, 2003.
- **Hepatitis B data** for San Francisco County were available for 1996 through 2002 and for the first 30 weeks of 2003.
- **Hepatitis C virus prevalence estimates** were provided by the SFDPH.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

ED mentions for cocaine declined from 1997 to 1998 and then rose steadily through 2001; they declined slightly in 2002 (exhibit 1). The rate of cocaine/crack ED mentions in 2002 was 150 per 100,000 population, slightly lower than the 2001 rate but 19.7 percent higher than the rate in 2000. Compared with 1998, the ED population in 2002 had a higher proportion age 35 and older, a much higher proportion of Whites, and a lower proportion of Blacks.

In the five-county bay area, the overall number of admissions for drug treatment, other than alcohol, declined steadily between 1999 and FY 2003 (exhibit

2). However, the proportion of cocaine/crack among these admissions held steady at 24 percent. Among these admissions, more than 87 percent cited smoking—presumably of crack—as the preferred route of use.

According to DAWN data, ME death mentions involving cocaine in the three-county bay area fluctuated within a narrow range, with no particular trend, between 1996 and 2000 (exhibit 3). This was followed by a drop in 2001 to 29 percent below the 1996–2000 average. Males accounted for 81 percent of the cocaine-related death mentions in 2000; the median age was just over 40.

Cocaine-positive tests among arrestees in San Jose and Sacramento, nearby metropolises that are ADAM sites, may give some indication of cocaine use prevalence in San Francisco. During 2002, 13 percent of adult male arrestees in San Jose and 21 percent of those in Sacramento tested positive for cocaine.

According to the DEA, local prices for powder cocaine were \$16,000–\$21,000 per kilogram and \$450–\$800 per ounce, and around \$60 per gram. Crack prices were around \$500 per ounce and ranged between \$20 and \$50 per “rock.”

In summary, indicators of cocaine use were down during the middle 1990s, were briefly up during the 1998–2001 period, and were again down since 2001.

##### Heroin

ED mentions of heroin reached a peak in 1999 and then fluctuated around a level about 10 percent lower in 2000–2002 (exhibit 1). Compared with 1998, the ED heroin mentions in 2002 had a higher proportion older than 35, a higher proportion of Whites, and a much lower proportion of Blacks.

The number of treatment admissions for primary heroin problems in the five-county bay area fell significantly between 1999 and FY 2003 (exhibit 2). As a proportion of all primary drug admissions excluding alcohol, heroin constituted 64 percent in 1994, 55 percent in 1999, and only 38 percent in FY 2003. Injection remains by far the predominant route of use: 81 percent reported that route, as opposed to 14 percent reporting inhalation as the preferred route.

In the three-county bay area reporting to DAWN, ME death mentions involving heroin in 2001 were at their lowest level in 6 years (exhibit 3). The count for 2001

was one-third lower than the average for 1996–2000. Males accounted for 87 percent of the heroin-related death mentions in 2000. The median age of the decedents was 40.

In the ADAM program in 2002, 3.4 percent of adult male arrestees in San Jose and 6.2 percent of those in Sacramento tested opiate-positive; the median across the 36 ADAM sites was 5.9 percent.

Arrests for heroin-related offenses totaled 6,136 in 2002, 16 percent higher than in 2001 and 3 percent higher than in 2000. However, the rate of arrests during the first 10 months of 2003 was nearly 30 percent lower than during a similar period of 2002.

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 and then fell back to 6,052 in 2002. During the first 10 months of 2003, the rate was 7 percent lower than during a similar period of 2002. 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.

The DEA's DMP tested heroin street buys in the San Francisco area during 2001. Of the 15 buys, 14 were of Mexican origin. The 2001 samples averaged 10 percent pure and \$0.43 per pure milligram (exhibit 4). Local samples of heroin were thus generally "Mexican" and were cheaper and less pure than in most recent years.

Prices of Mexican black tar heroin ranged from \$16,000 to \$30,000 per kilogram and from \$450 to \$850 per ounce in the first half of 2003. Gram prices were around \$60.

To summarize, heroin use indicators consistently point to a decline in use from the 1999 peak. Injection remains by far the predominant mode of usage.

### **Other Opiates/Narcotics**

ME death mentions in the overall "narcotic analgesics" category fluctuated within a narrow range in 1996–2000, but they then dropped in 2001 to a level 29 percent below the 1996–2000 average (exhibit 3). Both hydrocodone and oxycodone ED mentions rose steeply and continuously from 1999 through 2002 (exhibit 1); local street-based observers concur that

use of these drugs is clearly on the rise.

### **Marijuana**

The rate of ED marijuana mentions increased from 25 to 45 between 1998 and 2001 but then declined by 14 percent between 2001 and 2002. Marijuana ED mentions totaled 607 in 2002 (exhibit 1). In 2002 as compared to 1998, marijuana ED mentions had a higher proportion of females, Whites, and persons age 35 and older, and a lower proportion of Hispanics.

Arrests for marijuana-related offenses in San Francisco County numbered 1,736 in 2000. They then fell to a lower level during the next 2 years: 1,364 in 2001 and 1,420 in 2002. During the first 10 months of 2003, the arrest rate has been about 10 percent lower than in 2002.

Among adult male arrestees in ADAM in 2002, 34.0 percent of those in San Jose and 50.9 percent of those in Sacramento tested positive for marijuana. The median across the 36 ADAM sites was 41.5 percent.

In the first half of 2003, sinsemilla marijuana sold for \$5,000–\$6,000 per pound. Commercial grade marijuana sold for \$5–\$10 per gram.

In summary, marijuana use indicators peaked in 2001 and have declined substantially since then.

### **Stimulants**

Local observers report a substantial increase in "speed" activity in San Francisco. Selling of "crystal" or "Tina" is prominent in the Mission, Bayview, Tenderloin, and Castro neighborhoods. In addition, these observers note considerable selling via Internet sites, sometimes by means of "PNP" ("Party and Play") postings.

The rate of methamphetamine/speed ED mentions dropped sharply from 1997 to 1998, remained roughly the same through 2001, and increased significantly by about one-fifth in 2002 (exhibit 1). About three-quarters of the ED mentions in 2002 were male, nearly four-fifths were White, and nearly one-half were age 35 or older—a demography not much different from 1998.

Treatment admissions for primary speed problems in the five-county bay area increased steadily between calendar year 2000 and FY 2003 (exhibit 2). The proportion of primary speed users among all nonalcohol drug admissions rose from 13 percent in

1999 to 22 percent in FY 2003. It was noteworthy that fully 63 percent of speed users claimed smoking as the preferred route of administration; the proportions reporting injection or inhalation as preferred routes were each about one in six.

California's Proposition 36 has had a major impact on the disposition of arrest cases involving methamphetamine. Of 53,697 drug offenders eligible for Proposition 36 treatment during the law's first year, 82 percent chose to participate. Of these, 69 percent completed assessment and entered treatment, a "show" rate that compares favorably with other studies of drug users referred to treatment by the criminal justice system and other sources. Fully one-half of all the users entering treatment reported methamphetamine as their primary drug.

In the three-county bay area, ME death mentions involving methamphetamine rose from 44 in 1996 to 58 in 1999 and then fell back to 32 in 2001 (exhibit 3). Of the methamphetamine-related death mentions in 2000, males accounted for 93 percent, and the median age was 40.

Police activity relevant to methamphetamine has increased. The head of the San Francisco Police Department's Narcotics Division reports, "Just in the past year I have seen an increase in the reports coming across my desk, with 40 to 50 percent more cases in methamphetamine than we had with crack. Crystal meth is the next crack cocaine epidemic."

Two nearby metropolises that are ADAM sites may give some indication of the methamphetamine situation in San Francisco. In Sacramento and San Jose, respectively, 34 and 30 percent of male adult arrestees tested positive for methamphetamine in 2002. These were two of the three highest figures for methamphetamine-positive findings among male adults in all 36 ADAM sites.

Locally, pounds of methamphetamine sell in the \$3,600–\$8,000 range, depending upon "grade." Ounces of "crystal" sell for \$1,000–\$1,200 per ounce. The DEA San Francisco Field Division reports that Mexican criminal groups control the local wholesale and midlevel distribution. Wholesale quantities of methamphetamine are distributed from San Francisco to other U.S. markets.

To summarize, treatment admissions, ED mentions, and local observers' reports are consistent in showing an upward trend in methamphetamine use since 2001.

## Depressants

ED mentions of benzodiazepines averaged about 55 per month during 1997–2000 and then increased in 2001 (exhibit 1). Mentions returned close to the 1997–2000 average rate during 2002. ME mentions fluctuated in a narrow range, without a particular trend, during the 1999–2001 period (exhibit 3).

## Hallucinogens

Lysergic acid diethylamide (LSD) ED mentions increased from 43 in 1998 to 67 in 2000 and nearly vanished in 2002, declining by 75 percent (exhibit 1). Phencyclidine (PCP) mentions rose somewhat between 1999 and 2001, but in 2002 fell below the 1999 level.

## Club Drugs

Ethnographic observers concur that methylenedioxy-methamphetamine (MDMA or "X") is widely available, with a street price in the range of \$20–\$30 per "tab." The annual count of ED mentions for this drug nearly quadrupled in 4 years, from 38 in 1998 to 152 in 2001 (exhibit 1). However, the rate of mentions in 2002 is well below that of 2001. Two other club drugs, gamma hydroxybutyrate (GHB) and ketamine, had mentions in 2002 that were less than the 2000–2001 peaks. The actual number of club drug ED mentions remains small, though, compared with mentions for cocaine or methamphetamine.

## INFECTIOUS DISEASES RELATED TO DRUG ABUSE

### AIDS

San Francisco County had a cumulative total of 28,830 AIDS cases through September 30, 2003, an increase of 610 (2.2 percent) from the total reported through September 30, 2002. Of these cases, 2,025 (7.0 percent) were heterosexual injection drug users (IDUs), an increase of 79 (4.1 percent) in a year. Another 3,646 AIDS cases (12.6 percent) were men who had sex with other men (MSM) and also injected drugs; this number increased by 89, or 2.5 percent, in a year. There were just 46 reported cases among lesbian IDUs, barely one-hundredth the number among MSM/IDUs. The rate of case reporting has lately been decelerating among MSM/IDUs. AIDS data among transgender San Franciscans have been collected only since 1996, but the cumulative total of cases—301—is a surprisingly large proportion of an overall transgender population estimated at 3,000.

Among San Franciscans diagnosed in 2000 through 2003, heterosexual IDUs accounted for 15 percent, up from 10 percent among those diagnosed in 1994–1996, and 14 percent of those diagnosed in 1997–1999. However, the overall case numbers in 2000–2003 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 12 years. This caseload is 69 percent male, 50 percent Black, 35 percent White, 11 percent Hispanic, and 2 percent Asian/Pacific Islander. By contrast, the gay/bisexual IDU caseload is 72 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 overrepresentation of Blacks, while the gay male IDU demography is similar to that for male speed users.

Semiannual surveys by the Urban Health Study (UHS) point to a decline in the HIV-positive prevalence of heterosexual IDUs not in treatment. Prevalence figures were generally in the 9–10 percent range between 1997 and 2002 for San Francisco IDUs. Prevalence of IDUs in Richmond (Contra Costa County) ranged between 20 and 25 percent in the early 1990s, then between 15 and 18 percent in 1997–1999; prevalence was only 10 percent in 2001. Prevalence in West Oakland samples (Alameda

County) ranged around 15 or 16 percent in the middle 1990s, then ranged around 10 percent in 1997–1999; prevalence was only 6 percent in 2001. UHS surveys of heterosexual IDUs in San Francisco indicate that HIV incidence in that population has been close to zero from 1998 through 2001. Preliminary data for 2003 indicate no significant changes from 2001 to 2002.

By means of a consensus of experts, the county of San Francisco estimated that there would be 220 new HIV infections among IDUs during 2001. This amounts to a low HIV annual incidence among heterosexuals (0.6 percent for men, 1.1 percent for women), a high incidence among MSMs (4.6 percent), and an extremely high incidence among transsexuals (13.2 percent).

### **Hepatitis B**

From 1996 through 2001, reported cases of hepatitis B in San Francisco County rarely deviated from a pace of about one per week. The pace dropped significantly during 2002 and 2003, to about one case every 10 days.

### **Hepatitis C**

The prevalence of hepatitis C virus (HCV) is alarmingly high among IDUs in San Francisco. The SFPDPH estimates that HCV infection is at least 72 percent, and perhaps as high as 86 percent, among the county's overall IDU population of about 18,700.

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**Exhibit 1. Number of ED Mentions in San Francisco for Selected Drugs: 1997–2002**

Drug Mentioned	1997	1998	1999	2000	2001	2002
Cocaine	1,979	1,843	1,935	2,054	2,482	2,353
Heroin	2,719	2,360	3,050	2,756	2,790	2,672
Marijuana	388	391	469	627	704	607
Methamphetamine	1,012	616	554	591	611	727
PCP/Combinations	122	67	62	70	76	50
Hydrocodone/Combinations	129	121	115	169	188	215
Oxycodone/Combinations	20	26	17	31	54	85
LSD	73	43	55	67	46	17
MDMA	35	38	47	107	152	129
GHB	83	102	138	151	158	133
Ketamine	1	2	4	14	11	10
Benzodiazepines	727	619	665	664	825	657
<b>Total</b>	<b>13,487</b>	<b>12,520</b>	<b>12,700</b>	<b>12,171</b>	<b>13,743</b>	<b>13,085</b>

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 2. Admissions to Drug Treatment Programs in the San Francisco Bay Area by Primary Drug of Abuse: 1999–2001 and July 2002–June 2003 (FY 2003)**

Drug	1999	2000	2001	FY 2003
Cocaine	8,727	7,718	7,428	6,561
Heroin	19,763	17,416	14,673	10,423
Amphetamine (“Speed”)	4,595	4,469	5,073	5,973
<b>All Drugs (Excluding Alcohol)</b>	<b>36,069</b>	<b>32,034</b>	<b>30,920</b>	<b>27,187</b>

SOURCE: California Department of Alcohol and Drug Programs (DADP)

**Exhibit 3. ME Drug Mentions in Three Counties (Including San Francisco): 1996–2001**

Drug	1996	1997	1998	1999	2000	2001
Cocaine	155	127	158	158	146	106
Heroin/Morphine	212	159	164	192	148	117
Methamphetamine	44	49	45	58	45	32
Narcotic Analgesics	175	156	185	198	164	124
Benzodiazepines	66	71	62	50	55	56

SOURCE: DAWN, OAS, SAMHSA



**Exhibit 4. Price and Purity of Heroin Samples: 1994–2001**

<b>Year</b>	<b>Price Per Milligram Pure</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	\$0.71	16
2001	\$0.43	10

SOURCE: DEA, DMP

## Recent Drug Abuse Trends in the Seattle-King County Area

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### ABSTRACT

*Cocaine continues to be a major drug of abuse among those arrested and seen in emergency departments in Seattle, while deaths are lower than in 2002. Heroin/opiate deaths are near the low point for the past 10 years, while ED mentions and demand for treatment remain high. Prescription opiates in emergency departments and deaths have declined somewhat following several years of dramatic increases, while sales of these substances to pharmacies and hospitals continue to climb. Methamphetamine indicators remain elevated, though most have leveled off or declined slightly. MDMA use appears to have peaked in 2000–2001, with gradual, subsequent declines. Local survey data indicate high levels of club drug use among respondents at raves and MSM surveyed at bars and bathhouses/sexclubs. IDUs surveyed in jail reported persistent risk behaviors involved in drug preparation and injecting practices.*

### 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.

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According to the 2000 census, the population of King County is 1,737,034—the 12th largest in the United States. Of Washington's 5.9 million residents, 29 percent live in King County. The city of Seattle's population is 563,374; 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 and 15.2 percent, respectively.

#### Data Sources

Data for this report were obtained from the sources described below:

- **Drug-related mortality data** were provided by the King County Medical Examiner (ME). Information about drug-caused deaths in King County is presented by half-year from January 1, 1994, through June 30, 2003. Data for the first half of 2003 are preliminary. The data include deaths directly caused by licit or illicit drug overdose and exclude deaths caused by poisons. Therefore, totals may differ slightly from drug death reports published by the King County ME's office, which include fatal poisonings. Testing is not done for marijuana. 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.

- **Emergency department (ED) drug mentions data** were derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for 1995 through 2002. A drug “mention” indicates that the patient identified the substance as something he or she had recently taken; it may or may not have been the reason for the ED visit. Available data are for King County and neighboring Snohomish County combined.
- **Treatment admissions data** were extracted from the Washington State Department of Social and Health Services’ 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 from January 1, 1999, through December 31, 2002. Data are included for all treatment admissions that were funded by public funds. Department of corrections and private pay clients are excluded.
- **Arrestee drug testing data** were obtained from the Arrestee Drug Abuse Monitoring (ADAM) program. As part of the National Institute of Justice’s (NIJ’s) ADAM program, King County’s urinalysis results for 2000 to June 2003 are included in the narratives for cocaine, opiates, marijuana, phen-cyclidine (PCP), and stimulants (methamphetamine). All data are for adult male arrestees only.
- **Illegal drug price, purity, production, trafficking, distribution, and availability data** were provided by four sources. Heroin price and purity data for the United States and Seattle are from the Drug Enforcement Administration’s (DEA’s) Domestic Monitor Program (DMP). Data presented are from the first half of 2001, the most current data available. Data from the U.S. Customs Service relating to seizures of all illegal drugs are included for January 2001 to June 2003. Other relevant data are from the Northwest High Intensity Drug Trafficking Area (NW HIDTA). Pursuant to its designation by the Office of National Drug Control Policy, the NW HIDTA produces a Threat Assessment for the region on an annual basis. Data for 1998 through October 2003 are from all Federal, State, and local law enforcement agencies and narcotics task forces in the region and the Western States Information System (WSIN). The source of methamphetamine production data is 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.
- **Washington State Alcohol/Drug Help Line (ADHL)** provides confidential 24-hour telephone-based treatment referral and assistance for Washington State. Data are presented for January 2001 to June 2003 for calls originating within King County. Data presented are for drugs mentioned. A caller may refer to multiple drugs; therefore, there are more 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.
- **Key informant interview data** are obtained from discussions with treatment center staff, street outreach workers, and drug users.
- **Data on infectious diseases related to drug use**, including the human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), and hepatitis, were provided by three sources. The Sexually Transmitted Disease (STD) Clinic, Public Health – Seattle & King County (PHSKC) provided data on clients’ drug use, health status, and health behaviors for October 2000 to February 2003. Another source is “HIV/AIDS Epidemiology Report.” Data on HIV and AIDS cases (including exposure related to injection drug use) in Seattle-King County, other Washington counties, Washington State (July 2000 through June 2003), and the United States (January 2000 through December 2002) are provided by PHSKC, the Washington State Department of Health, and the Federal Centers for Disease Control and Prevention (CDC). HIV cases were reported to PHSKC or the Washington Department of Health between July 2000 and June 2003.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine/Crack

Of the 23 cocaine-involved deaths in the first half of 2003 (exhibit 1), 5 involved only cocaine. The other drugs most commonly detected in those deaths were heroin/opiates ( $n=13$ ), alcohol (10), and other opiates (4). In the short term, cocaine deaths were down from a recent peak of 49 in the first half of 2002, and over the longer term, cocaine deaths were lower than the level seen through most of the past decade.

The rate of cocaine ED mentions was 164 per 100,000 population in 2002, up 42 percent from 1995 (not sta-

tistically significant) (exhibit 2). During this same time, the rate of ED mentions for all illegal drugs (DAWN “Major Substances of Abuse,” not including mentions of alcohol-in-combination) increased 31 percent, while the rate for ED visits for any reason increased 9 percent and the rate for total drug abuse episodes (illegal and legal drugs) increased by 12 percent (not statistically significant). The fact that there was a larger increase for drug-involved mentions than for drug abuse episodes indicates that, on average, more drugs have been mentioned per episode in recent years than in the past. In other words, there has been an increase in polydrug/medication use.

The proportion of ED mentions involving cocaine, relative to all illegal drugs, increased somewhat in recent years (tests of statistical significance are not available). Thirty-nine percent of mentions in the DAWN category of “Major Substances of Abuse” (excluding alcohol-in-combination) were for cocaine in 2002, similar to the 40 percent in 2001, but higher than the 33 percent seen in 1997, the lowest level in the past 8 years. Cocaine was the most commonly mentioned illegal drug in emergency departments in Seattle and was second only to alcohol-in-combination among all substances mentioned.

The proportion of treatment admissions for which cocaine was the primary drug of abuse declined from 13.7 to 12.6 percent from 1999 to 2002. In 2002, male and female primary admissions for cocaine were evenly split (exhibit 3). Only 2 percent of admissions were for youth younger than 18. Almost one-half (47 percent) of cocaine treatment admissions were African-American, despite African-Americans representing 21 percent of all treatment admissions and only 5 percent of the county population. This disproportionately high level of African-Americans has been consistent since 1999. Cocaine was the second most common illegal drug mentioned when primary, secondary, or tertiary drugs of abuse are considered together, with 39.6 percent of all people admitted to treatment reporting such cocaine use.

Data for the first two quarters of 2003 indicate that 36 percent of arrestees had positive urine tests for cocaine, similar to levels reported in 2002 and a bit higher than levels for 2000 and 2001. Self-report data from the second quarter of 2003 indicate the form of cocaine used. Twenty-six percent of arrestees reported crack cocaine use in the past 12 months, while 21 percent reported powder cocaine use during that same timeframe. Reported use levels in the prior 30 days were 21 percent for crack and 13 percent for powder cocaine.

The number of cocaine seizures by the U.S. Customs Service remained fairly steady with 16 in the first half of 2003, similar to seizures in the first halves of 2001 to 2002, when there were 19 to 13, respectively, per half-year period. At the same time, the amount seized has fluctuated in each of those semi-annual periods, from a high of 5,378 pounds in the first half of 2001, down to 37 pounds in the first half of 2002, and up to 414 pounds in the first half of 2003.

The NW HIDTA reported that the street prices of cocaine were \$45–\$100 per gram, \$450–\$800 per ounce, and \$14,000–\$28,000 per kilogram. Intelligence reports indicate that powder cocaine is increasingly more available in King County and other areas of the State.

The number and proportion of cocaine-related calls to the ADHL for adults increased in the first half of 2003, while those for youth remained fairly stable. Cocaine is the most common drug cited by adults—33 percent for the first half of 2003 ( $n=603$ ), on track to surpass 2001 and 2002. For teenagers, cocaine was the third most common drug mentioned, with 27 calls, representing 10 percent, similar to 2001 and 2002.

### Heroin

Heroin/opiate-involved deaths were down in both the short and the long term (exhibit 1). The 29 deaths in the first half of 2003 accounted for the second lowest heroin/opiate-involved death total for a half-year reporting period in 10 years. The peak was 87 deaths in the second half of 1998. In 4 of the 29 heroin/opiate-involved deaths in the first half of 2003, the only drug detected was a heroin/opiate. Cocaine was the most common drug identified in opiate-involved deaths ( $n=13$ ), followed by alcohol (11), other opiates (9), and depressants (6). In five of the six depressant-and opiate-involved deaths, diazepam (e.g., Valium) was present.

The rate of heroin ED mentions in Seattle in 2002 (128 per 100,000 population) was second only to that for cocaine among illegal drugs mentioned (exhibit 2). The overall trend in rates was flat for the past 8 years, with 2001 representing a brief dip to the lowest level seen in this timeframe. As a proportion of ED mentions in the DAWN category of “Major Substances of Abuse” (excluding mentions for alcohol-in-combination), heroin represented 30 percent.

The number and proportion of primary heroin treatment admissions dropped between 2000 and 2001. These indicators were stable in 2002, when 14 per-

cent of admissions were for heroin (exhibit 3). The high level of heroin treatment admissions in the recent past was related to funding availability, not changes in demand for treatment, which has remained high. Men represented a majority of heroin treatment admissions in 2002 (58 percent), similar to past years. Less than 1 percent of heroin treatment admissions were for youth in 2002. The main ethnic group among primary heroin addicts was Whites (64 percent), followed by African-Americans (19 percent), Hispanics (7 percent), and Native Americans (3.5 percent). The proportion of all treatment admissions who mentioned heroin as one of their top three drugs of abuse totaled 18.5 percent in 2002.

Opiates were identified in approximately 10 percent of adult male arrestees' urine tests for each of the years from 2000 to 2002. A short-term, non-statistically significant decline occurred between the first and second quarters of 2003, from 9 to 5 percent. Nine percent of arrestees reported heroin use in the prior 12 months, while 6 percent reported use in the prior month, according to data gathered in the second quarter of 2003.

The primary form of heroin on the streets is Mexican black tar. China white, a common form in Vancouver, British Columbia, and on the east coast of the United States, is uncommon in the local area according to regional HIDTA and DEA information.

Calls to the ADHL from January to June 2003 for heroin represented 14 percent of all drug-related calls, slightly higher than the 9 and 11 percent seen in 2001 and 2002, respectively. Teens were less likely to call about heroin. Only 3 percent of calls by teens were related to heroin.

Heroin seizures by the U.S. Customs Service are infrequent. In the first half of 2003, three seizures totaled less than 9 pounds, similar to seizures in past years. The major trafficking route is believed to involve the interstate highway system from the southwestern United States, once the product has crossed the Mexican border. It is believed there is not much heroin trafficking across the Washington-Canadian border in either direction.

The DEA reports that declining heroin purity was first noted in 2000; purity has remained at lower levels. The average purity of 14 samples collected by the DMP in Seattle was 10.3 percent in January–June 2001, similar to the 12.7 percent purity for the 23 samples collected in all of 2000. All samples for which a country of origin could be determined were found to be Mexican.

Data for King County from the Northwest HIDTA for 2002 showed the following prices for Mexican black tar heroin: \$25–\$100 per gram, \$450–\$900 per ounce, \$6,000–\$10,000 per pound, and \$11,500–\$20,000 per kilogram.

### Other Opiates/Narcotics

For the purposes of this report, “other opiates/narcotics” include codeine, dihydrocodeine, fentanyl, hydrocodone, methadone, oxycodone, propoxyphene, and the narcotic analgesics/combinations reported in the DAWN ED data.

Other opiates were identified 41 times in 38 deaths in the first half of 2003 (exhibit 1); only 4 of the deaths involved no other drugs. The most common co-ingestants were depressants ( $n=16$ ), opiate/heroin/morphine (9), alcohol (5), and cocaine and amphetamine, each with four mentions. The most common types of other opiates identified in decedents in the first half of 2003 were methadone ( $n=19$ ), hydrocodone (7), and oxycodone (5). The 41 other opiate mentions in the first half of 2003 represented a slight decline from the peak of 47 in the second half of 2002. The number of methadone mentions in the first half of 2003 was consistent with the prior year, while the number of oxycodone mentions was a decline from the second half of 2002 ( $n=7$ ) and the first half of 2002 (13). Oxycodone-involved deaths peaked in 2002.

What constitutes a prescription opiate-related death is unclear, however, particularly among methadone-tolerant individuals. Issues of tolerance, potentiation with other drugs, and overlapping therapeutic and lethal dose levels complicate assigning causation in prescription opiate-involved fatalities.

The rate of narcotic analgesics/combinations ED mentions decreased significantly by 21 percent in 2002 from the peak in 2001, while the rate of 95 mentions in 2002 reflected a significant 85-percent increase from 1995 (exhibit 2). The rate of narcotic analgesics/combinations mentions in 2002 was higher than the rate for marijuana (65) and lower than that for heroin (128). Narcotics are the most common class of drugs mentioned among the psychotherapeutic and central nervous system drug categories in DAWN. In 2002, methadone was the type of narcotic most commonly mentioned in Seattle emergency departments, constituting 21 percent of all narcotic mentions. The number of methadone ED mentions in 2002, however, reflected a 31-percent decline from 2001. Oxycodone ED mentions represented 18 percent of narcotic analgesics/combinations ED men-

tions in 2002. Trends in oxycodone mentions varied by formulation: the rate per 100,000 population for mentions of oxycodone in combination with acetaminophen (e.g., Percocet) increased 75 percent from 1995 to 2002, and the rate of mentions for oxycodone only (e.g., OxyContin) increased by more than 3,000 percent during that period.

Approximately 1 percent of people admitted to treatment mentioned prescription opiates as their primary drug. Treatment data on prescription opiates are only available on use as the primary drug of abuse. Past analyses showed that 15 percent of those admitted to methadone maintenance programs in 2001 reported prescription opiates as one of the three main drugs they were currently using. These past analyses also indicate that private pay methadone maintenance clients are more likely to report prescription opiate use than those who receive public funding. (Private pay clients are not included in analyses in this paper.) Two-thirds of other opiate treatment admissions were female, by far the largest proportion of female users among any class of drugs. Only 2 of the 70 patients were younger than 18 in 2002. The majority (79 percent) were White, and 9 percent were African-American in 2002. The general demographic patterns have been consistent since 1999.

DEA data on sales of prescription opiates to hospitals and pharmacies reveal a 229-percent increase in methadone and a 235-percent increase in oxycodone from 1997 to 2002, with increases seen in each year. At the same time, sales of hydromorphone (e.g., Dilaudid) increased 41 percent, and those of hydrocodone (e.g., Vicodin) increased 79 percent. Note that these data for methadone only include prescriptions for pain written by physicians; they do not include methadone provided in opiate treatment programs.

## **Marijuana**

Marijuana continues to be one of the most widely used illicit substances in the area.

DAWN ED data indicate that marijuana remained the third most common illegal drug mentioned, with a rate of 65 mentions per 100,000 population in 2002 (exhibit 2). This rate reflects a significant decrease of 13 percent from 2001, when the rate was 75. Fifteen percent of illegal drug mentions (those in the “Major Substances of Abuse” category, excluding mentions for alcohol-in-combination) involved marijuana in 2002. Approximately 84 percent of those who mentioned marijuana in 2002 were also using other drugs at the time of the ED visit.

Treatment admissions for a primary marijuana problem increased from 17.6 to 20.1 percent of all treatment admissions from 1999 to 2002. Males represented 71 percent of marijuana admissions, a proportion similar to that seen in past years (exhibit 3). Youth have consistently represented a majority of admissions for marijuana; they accounted for 61 percent in 2002. Among youth admitted to treatment, marijuana was the most common primary drug of abuse, accounting for 70 percent of youth admissions in 2002. For adults, conversely, marijuana was the least common major drug of abuse mentioned, accounting for 9.5 percent in 2002. Combining primary, secondary, and tertiary drugs of abuse reveals how commonly marijuana is mentioned, with 92 percent of youth and 42 percent of adults mentioning marijuana as one of their top three drugs in 2002.

ADAM data show that 39 percent of arrestees tested positive for the drug during the first half of 2003, similar to prior years. Fifty-five percent and 44 percent of arrestees reported marijuana use in the past 12 months and 30 days, respectively.

Marijuana has been surpassed by cocaine as the drug most commonly cited among all callers to the ADHL. In the first half of 2003, marijuana accounted for 21 percent of the calls, while cocaine accounted for 30 percent. A substantial difference between adults and teens is evident, with approximately three times the proportion of teens (53 percent) as adults (16 percent) calling about marijuana during the first half of 2003. The total number of calls to the Help Line, including those for marijuana, decreased again in the first half of 2003. The proportion of all calls citing marijuana declined slightly from 24 percent to 21 percent between the second half of 2002 and the first half of 2003.

HIDTA data collected from King County law enforcement show the following prices for marijuana: \$10 per gram, \$250–\$300 per ounce, and \$2,300–\$4,000 per pound. Price depends on the quality and a variety of other factors, but “BC Bud” from British Columbia, Canada, is widely available and the most expensive of the marijuana varieties available in King County.

The number of marijuana seizures in the first half of 2003, 230, was the lowest in the past 2½ years, but the amount seized is the second largest amount during this timeframe, 9,225 pounds. Even with the additional diligence of the U.S. Customs Service at the Canadian border, “Marijuana produced in Washington, Canada and Mexico is available through-

out the state,” according to the Northwest HIDTA Threat Assessment (2003).

### Stimulants

The 9 amphetamine-involved deaths in the first half of 2003 equaled the number from the preceding half-year and were exceeded only by the 12 deaths in the second half of 1999 (exhibit 1). The long-term trend in amphetamine-involved deaths is upward. Three of the nine amphetamine-involved deaths were caused by only one drug. Other opiates ( $n=4$ ) and cocaine (3) were the most commonly detected other drugs. Methamphetamine was the form of amphetamine specifically identified in all nine deaths.

The rate of DAWN ED mentions per 100,000 population for amphetamines in Seattle-King County peaked in 2000 and 2001 at 32 and 33 per 100,000, respectively, and declined to 21 per 100,000 in 2002 (exhibit 2). Those age 18–25 were the most likely to mention amphetamine use, followed by 26–34-year-olds.

The rate of methamphetamine ED mentions peaked in 2000, declined in 2001, and rose again in 2002 to 25 per 100,000, an 81-percent increase since 1995. As a proportion of ED episodes, the Seattle area ranked third in the Nation for methamphetamine, below Los Angeles and San Diego. Similar to amphetamine users, users of methamphetamine were most likely to be between 18 and 25, followed by 26–34-year-olds.

In 2002, Whites represented the majority of amphetamine ED mentions (72 percent) and methamphetamine mentions (76 percent). Overall, amphetamines and methamphetamine were mentioned in the ED less frequently than cocaine, heroin, and marijuana. The forms and sources of amphetamines, prescription or street drug, are unknown.

Amphetamines were the primary drug for 0.5 percent of those entering treatment in 2002 ( $n=33$ ), similar to past years. A substantial minority (42 percent) of primary amphetamine users were youth in 2002. Seventy percent were White in 2002, consistent with prior years. Approximately one-half of primary amphetamine admissions were female.

The number and proportion of treatment admissions for methamphetamine as the primary drug increased substantially from 1999 to 2001 and leveled off in 2002, when methamphetamine accounted for 8.5 percent of treatment admissions (exhibit 3). The proportions of males and females were equal for methamphetamine treatment admissions from 2000 to 2002;

in 1999, 55 percent of admissions were for men. A large majority, 88 percent, of patients were White, similar to past years. This is a much higher proportion of Whites than for any other major drug and is similar to the proportion of White admissions for hallucinogens. Youth represented 10 percent of primary treatment admissions for methamphetamine, a higher proportion than for alcohol, heroin, or cocaine. Use of methamphetamine as one of their three primary drugs was mentioned by 15 percent of clients in 2002.

The proportions of male arrestees in the Seattle-King County ADAM program who tested positive for methamphetamine totaled 12 and 13 percent in the first and second quarters of 2003, respectively. These were statistically unchanged from prior years, with 11 percent testing methamphetamine-positive in 2002 and 2001 and 9 percent in 2000. Twenty percent and 14 percent of arrestees reported use of methamphetamine in the prior 12 months and 30 days, respectively.

The proportion of King County calls to the ADHL regarding methamphetamine remained stable during the first half of 2003. Among the total number of calls, 15.6 percent concerned methamphetamine during the period, as did the total number of such calls throughout 2002. The proportions of methamphetamine-related calls specifically attributed to adult (16 percent) and youth callers (14 percent) also remained stable and comparable. Methamphetamine also remained the third most common illegal drug identified by adult and youth callers.

Current local street prices of methamphetamine in Seattle-King County were \$20–\$100 per gram, \$350–\$1,200 per ounce, and \$5,000–\$15,000 per pound.

The Washington State DOE reports that the number of statewide methamphetamine incidents continued to decline, following a trend that was first noted in 2002. The total number of statewide incidents through October 2003 was 1,263, suggesting a likely total for the year of approximately 1,500. This represents a 12-percent decrease from the 2002 total of 1,697 and a 25-percent decrease from the 2001 total of 1,886. The statewide decline has been most pronounced in the urban counties, but increases, attributed primarily to law enforcement pressure in populous areas, have been reported in rural communities. It is also important to note that these data do not indicate the manufacturing methods or the quantities manufactured at the site of individual incidents. Anecdotal reports from law enforcement indicate that large-scale labs represent a minority of manufacturing labs in the State.

Similarly, the number of methamphetamine incidents reported in Seattle-King County declined, with 173 reported for the period ending October 31, 2003. This suggests a likely total of approximately 210 for the year, representing a 15-percent decrease from the 2002 total of 241, a 29-percent decrease from the 2001 total of 271, and a return to the level of activity reported in 2000. In spite of this decreasing trend, King County continues to rank second in the State of Washington for the number of activities associated with methamphetamine manufacturing.

Law enforcement sources and other informants report a continuing increase in the amount and prevalence of “ice” within the community, thought to be related both to an ongoing increase in smoking as the preferred route of administration among users and to an ongoing increase in the importation and availability of methamphetamine produced in other regions, particularly California and Mexico. Some law enforcement sources suggest that the increase in importation has more than offset the decreases in local methamphetamine incidents.

There were no methamphetamine seizures by the U.S. Customs Service at the border from January to June 2003, continuing the trend of infrequent and small seizures at the border. There were 17 seizures (totaling 8 pounds) in 2002 and 18 seizures (totaling 3 pounds) in 2001. Other Federal agencies report 46 kilograms seized in 2001, compared with 127 kilograms in 2002, while local law enforcement agencies seized a total of 114 kilograms in 2001 and 199 kilograms in 2002 in Washington State.

### Depressants

Barbiturates, benzodiazepines, and other sedative/depressant drugs in this analysis include alprazolam (Xanax), butalbital (Fioricet), chlordiazepoxide (Librium), cyclobenzaprine (Flexeril), diazepam (Valium), hydroxyzine pamoate (Vistaril), lorazepam (Ativan), meprobamate (Equanil), oxazepam (Serax), phenobarbital, promethazine (Phenergan), secobarbital (Seconal), temazepam (Restoril), triazolam (Halcion), and zolpidem (Ambien).

Twenty-four deaths involved depressants, and just two of them involved no other drugs in the first half of 2003. Among these 24 deaths, 38 different depressants were detected (exhibit 1). The depressant most commonly detected was diazepam ( $n=13$ ). The most common co-ingestant was other opiates, which were identified in 16 of the deaths, followed by opiates ( $n=6$ ), and alcohol (4). The 38 mentions of depres-

sants were the highest since at least 1994 (the year of earliest available data), and were approximately three times the total seen in the mid-1990s.

The rate of ED mentions of depressants—anti-anxiety, sedatives and hypnotics—declined to 67 per 100,000 population in 2002, down from a peak of 86 per 100,000 in 2001. Three-quarters of those mentions were for benzodiazepines, similar to recent years. Depressants rank below cocaine, heroin, and narcotic analgesics/combinations, and are similar to marijuana in terms of the number of mentions (exhibit 2). Demographic data are unavailable.

Treatment admission data for depressants are limited to where they are noted as primary drugs. Depressants were the primary drug of abuse for less than 1 percent of treatment clients in both 2002 ( $n=50$ ) and in other recent years. Though the overall numbers are small, this represents a substantial proportional increase from previous years. “Major tranquilizers” represented 62 percent of depressant mentions. In 2002, 60 percent of depressants admissions were male, and 46 percent were youth. The proportion of youth began increasing in 2001. Only 48 percent were White, and 26 percent were African-American.

### Hallucinogens and Club Drugs

Hallucinogens include lysergic acid diethylamide (LSD), mescaline, peyote, psilocybin (mushrooms), PCP, and inhalants. “Club drugs” is a general term used for drugs that are popular at nightclubs and raves, including the hallucinogens, methylenedioxymethamphetamine (MDMA or ecstasy), gamma hydroxybutyrate (GHB), gamma butyrolactone (GBL), ketamine, and nitrous oxide.

There were six MDMA-involved deaths from 1999 to 2002 and three GHB-involved deaths in 2002. There were no hallucinogen- or club drug-involved deaths in the first half of 2003, the first time this has occurred since 1998.

The rates of ED mentions per 100,000 population for club drugs and hallucinogens were much lower than those for other drugs in 2002. The rates for PCP, ecstasy, GHB, and LSD were 6, 4, 2, and 2, respectively, compared with 25 for marijuana and 164 for cocaine.

The rate of PCP ED mentions increased significantly between 1995 (2) and 2002 (6). In 2002, 84 percent of PCP ED mentions involved other drugs, a high proportion and similar to prior years. The proportion



of PCP ED mentions made by females increased from 8 percent in 1995 to 30 percent in 2002. One-half of PCP mentions in 2002 were made by African-Americans; extensive missing data in the 1990s precludes race trend comparisons. Those age 18–25 consistently constitute the largest group of those mentioning PCP in emergency departments.

The rate of ED MDMA mentions continued to decline steadily. The peak of mentions was in 2000, with a rate of 6 per 100,000 population; that rate declined significantly to 4 per 100,000 in 2002. The majority of ED mentions in recent years were made by White males age 18–25. In the mid- and late 1990s, those age 18–25 represented the only group mentioning PCP in EDs with any frequency. In 2000, mentions increased among all groups, most notably for 6–17-year-olds and 26–34-year-olds.

With regard to other drugs identified in the ED, LSD mentions continued to decline in 2002, while mentions of GHB increased significantly between 2001 ( $n=39$ ) and 2002 (54).

Treatment admissions for hallucinogens, inhalants, and PCP were all well under 1 percent of total admissions in 2002, with 29, 6, and 12 admissions respectively. Despite these very small numbers, general demographic patterns have held fairly stable. Hallucinogen use was reported primarily by White males, a majority of whom were youth, except in 2002 when a majority were adults. Most inhalant users were adult males, with variable ethnic backgrounds reported over the 4-year period of available data. PCP users were predominately African-American (80 percent), similar to anecdotal data from throughout the United States, presented at the national CEWG meeting in December 2003. Though the numbers are tiny for PCP, the number of treatment admissions consistently increased from 2 in 1999 to 12 in 2002, an increase that parallels ED mentions.

ADAM data for drugs in this category are limited to PCP. In the second quarter of 2003, 8 percent of arrestees tested positive for PCP, the highest level since 2000, and much higher than the level seen in the prior quarter (less than 1 percent). Additional use frequency data are not provided for PCP.

Calls to the ADHL regarding MDMA continue to decrease substantially from 218 in 2001, to 104 in 2002 to 20 in the first half of 2003 for callers of all ages. LSD, not frequently mentioned in 2001 or 2002, was mentioned only once in the first half of 2003. Collectively, club drugs and hallucinogens

represented just 2 percent of all calls to ADHL, compared with 6 percent in 2001.

Other information concerning patterns of use remains anecdotal. Prices for ecstasy, GHB, PCP, and LSD remained stable from the past year (e.g., a 150–250-milligram tablet of MDMA sells for \$20–\$30), and ecstasy quality remained inconsistent. Among gay and bisexual men, the blended use of ecstasy, GHB, and amyl nitrite (“poppers”), especially in combination with recreational, nonprescription use of Viagra, continued as a significant trend in dance and sex venues. Anecdotal reports of young men who have sex with men (MSM) injecting ketamine have increased recently.

A community-based survey was conducted in the summer of 2003 by the Alcohol and Drug Abuse Institute at the University of Washington in conjunction with PHSKC. Self-administered surveys were gathered in gay bathhouses and sexclubs ( $n=135$ , median age 40), gay bars ( $n=100$ , median age 37), raves ( $n=310$ , median age 20), and youth drug treatment agencies ( $n=64$ , median age 17). Lifetime use of club drugs was much higher than in the general population: MDMA use was reported by 25, 47, 78, and 37 percent, respectively, of those surveyed at bathhouses and sex clubs, gay bars, raves, and youth treatment agencies. GHB use was reported by 9 percent of those surveyed at bathhouses/sexclubs, 19 percent at gay bars, 30 percent at raves, and 3 percent at youth treatment agencies. Proportions reporting LSD use totaled 32, 37, 54, and 16, respectively, at bathhouse/sexclubs, gay bars, raves, and youth treatment agencies. Nine percent of those at bathhouse/sexclubs, 21 percent of those at gay bars, 31 percent of those at raves, and 6 percent of those at youth treatment agencies reported use of ketamine. Lifetime use of “research chemicals,” such as 2,5-dimethoxy-4-(*n*)-propylthiophenethylamine (2C-T-7) and 5-methoxy-N,N-diisopropyltryptamine (“foxy methoxy”), was only reported with any frequency by rave attendees (21 percent).

The U.S. Customs Service first provided data indicating seizures of MDMA in the first half of 2002. The number of seizures and amount of product seized, while never huge, has continually decreased over the three 6-month reporting periods. In the first 6 months of 2003, there were four seizures, totaling 32 pounds, the largest of which was 28 pounds.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Excepting male injection drug users (IDUs) who also have sex with men (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 14 years. Various sero-surveys conducted in methadone treatment centers, correctional facilities and through street and community-targeted sampling strategies over this period indicate that 4 percent or fewer of non-MSM/IDUs in King County are infected with HIV. Compared to White IDUs, infection rates appear to be 2–3 times higher among African-American and Hispanic IDUs and 5–6 times higher among American Indian and Alaska Native IDUs. IDUs who are homeless or unstably housed are twice as likely to be HIV-positive as are those who have permanent housing. Out-of-treatment IDUs are twice as likely to be HIV-positive compared with IDUs who are enrolled in treatment. Recent data from a CDC-funded HIV Incidence Study (HIVIS, 1996–2001) suggest that the rate of new infections among non-MSM/non-IDU in King County is less than 0.5 percent per year.

Among methamphetamine-injecting MSM, Public Health data indicate that up to 47 percent are HIV-infected. Fourteen percent of MSM/IDUs who primarily inject drugs other than methamphetamine are HIV-positive. Prevalence of HIV among non-amphetamine injecting MSM/IDUs is comparable to the rate observed among MSMs in general in King County. HIVIS data indicate that 2.5 percent (95 percent CI: 1.1–4.5) of noninfected MSM/IDUs become infected each year. This is the highest incidence rate of all at-risk populations in King County, accounting for an estimated 20–80 new infections a year.

Hepatitis B virus (HBV) and hepatitis C virus (HCV) are endemic among Seattle-area injectors. Epidemiologic studies conducted among more than 4,000 IDUs by Public Health's HIV/AIDS Epidemiology Program since 1994 reveal that 85 percent of King County IDUs may be infected with HCV, and 70 percent show markers of prior infection with HBV. Local incidence studies indicate that 21 percent of noninfected IDUs acquire HCV each year, and 10 percent of IDUs who have not had hepatitis B acquire HBV.

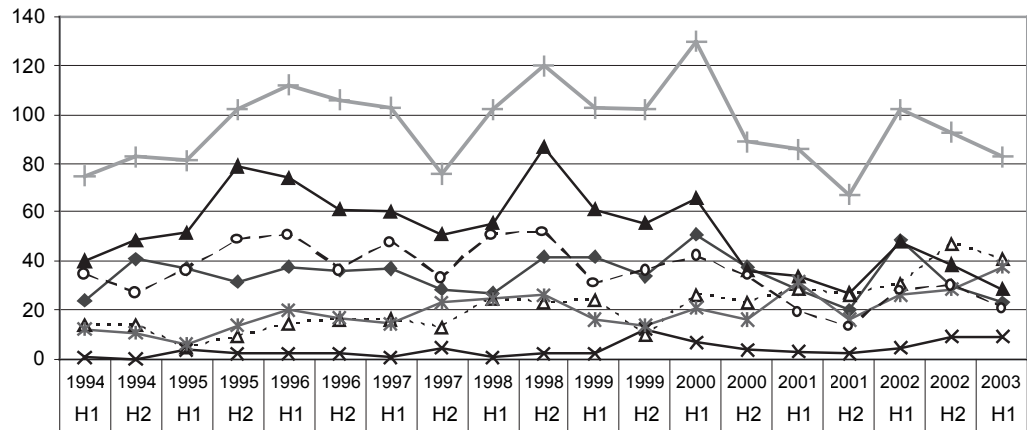
Public Health staff conducted interviews and HIV serology surveys among 1,811 IDUs booked into 2 King County jail facilities between August 1998 and December 2002 to assess HIV prevalence and risk behaviors. Rates of infection were comparable to other local studies, but the survey revealed persistent risk in drug preparation and injection practices in this population. Ninety-three percent of inmates interviewed reported having injected within the last 6 months. Of these, two-thirds injected 2 or more times per day and about one-quarter reported having injected with more than 10 different people. Nearly two-thirds reported injecting with a syringe previously used by someone else, and more than one-quarter had injected with two or more different people's used syringes in the last 6 months. Seventy-six percent reported re-use of another's cooker to melt drugs, and 62 percent reported sharing syringes to divide drugs (backloading).

In addition to injection drug use, studies conducted by PHSKC's STD Clinic indicate that use of methamphetamine by means other than injection, as well as inhalation of poppers (amyl nitrate), may be significant risk factors for HIV acquisition and transmission among men who have sex with men. Among 1,547 MSM who were tested from October 2000 through February 2003, those who reported nitrate use were nearly twice as likely to be HIV infected than those who did not use nitrate, while MSM who reported noninjection use of methamphetamine use in the last year were 1.5 times more likely to be infected. These findings, though not as dramatic as the association between injection drug use among MSM and HIV infection, are reason for concern and action. Previously reported STD Clinic data showed that use of methamphetamine and ecstasy among local MSM was significantly associated with increased number of sex partners and contracting gonorrhea. Together, these data suggest a need for further study of the role drug use is playing in the sexual transmission of HIV among MSM in the Seattle area, and for HIV prevention interventions that specifically target MSM who use drugs by means other than injection. More detailed information on HIV/AIDS in King County and other counties in the State is presented in exhibit 4.

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**Exhibit 1. Drugs Identified in Drug-Caused Deaths in Seattle-King County by Number:  
January 1994–July 2002<sup>1</sup>**



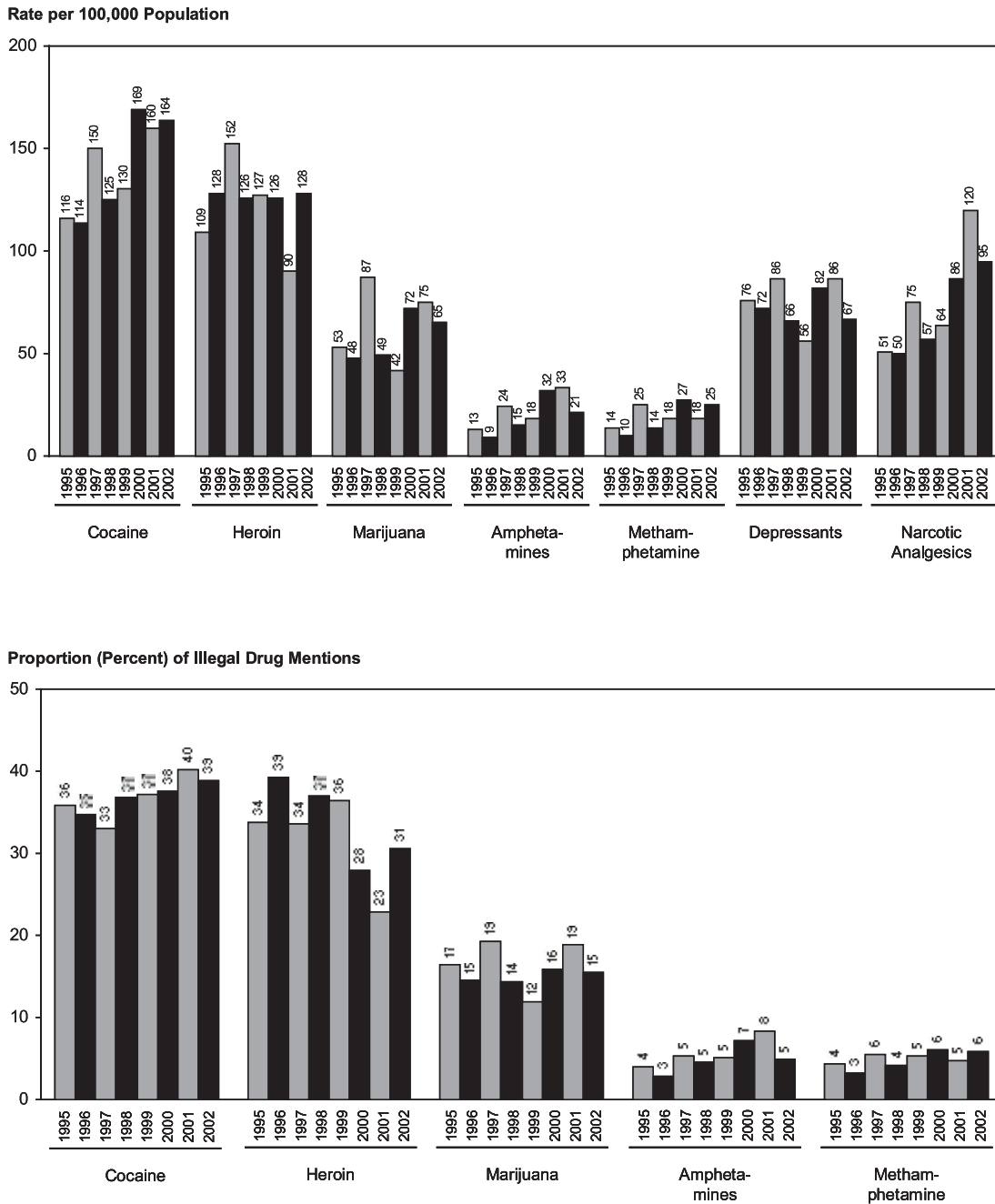
	1994 H1	1994 H2	1995 H1	1995 H2	1996 H1	1996 H2	1997 H1	1997 H2	1998 H1	1998 H2	1999 H1	1999 H2	2000 H1	2000 H2	2001 H1	2001 H2	2002 H1	2002 H2	2003 H1
◆ Cocaine	24	41	37	32	38	36	37	29	27	42	42	34	51	38	29	20	49	30	23
▲ Heroin/Opiates	40	49	52	79	74	61	60	51	56	87	61	56	66	36	34	27	48	39	29
△ Other Opiates	14	14	5	9	15	16	16	13	25	23	24	10	26	23	29	26	31	47	41
× Amphetamines <sup>2</sup>	1	0	4	2	2	2	1	5	1	2	2	12	7	4	3	2	5	9	9
* Depressants	12	11	6	14	20	17	15	23	25	26	16	14	21	16	32	16	26	29	38
○ Alcohol	35	27	36	49	51	36	48	33	51	52	31	36	42	34	19	13	28	30	21
—+— TOTAL DEATHS	75	83	81	102	112	106	103	76	102	120	103	102	130	89	86	67	102	93	83

<sup>1</sup> More than one drug is often identified per individual drug overdose death; table excludes poison-related deaths.

<sup>2</sup> The amphetamines identification category includes methamphetamine but does not include MDMA.

SOURCE: King County Medical Examiner

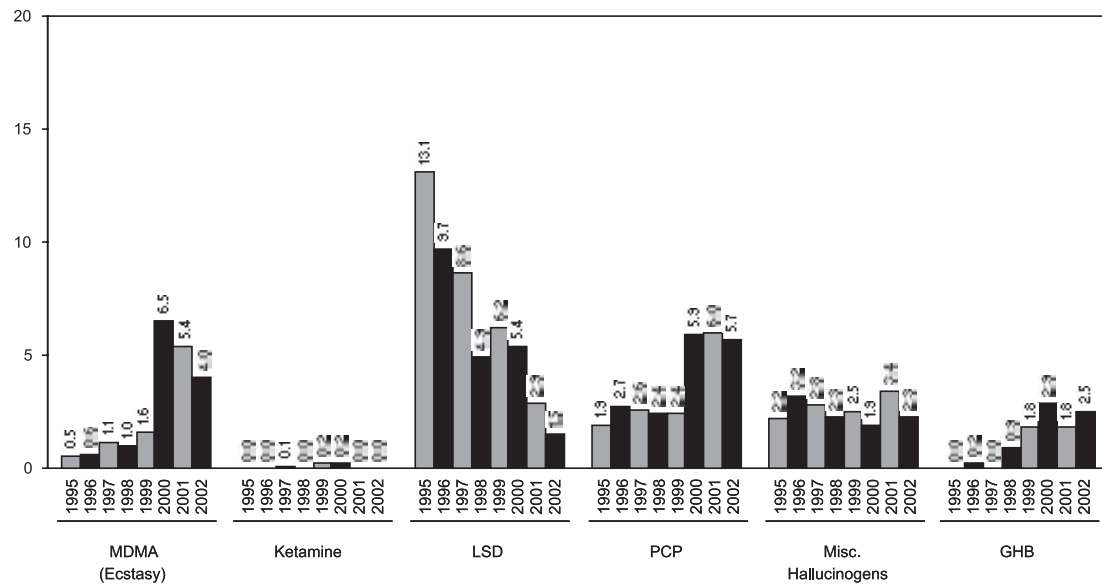
**Exhibit 2: Rates of ED Drug Mentions per 100,000 Population and Proportions of Drug Mentions Among Illegal Drug Mentions<sup>1</sup> in King and Snohomish Counties: 1995–2002**



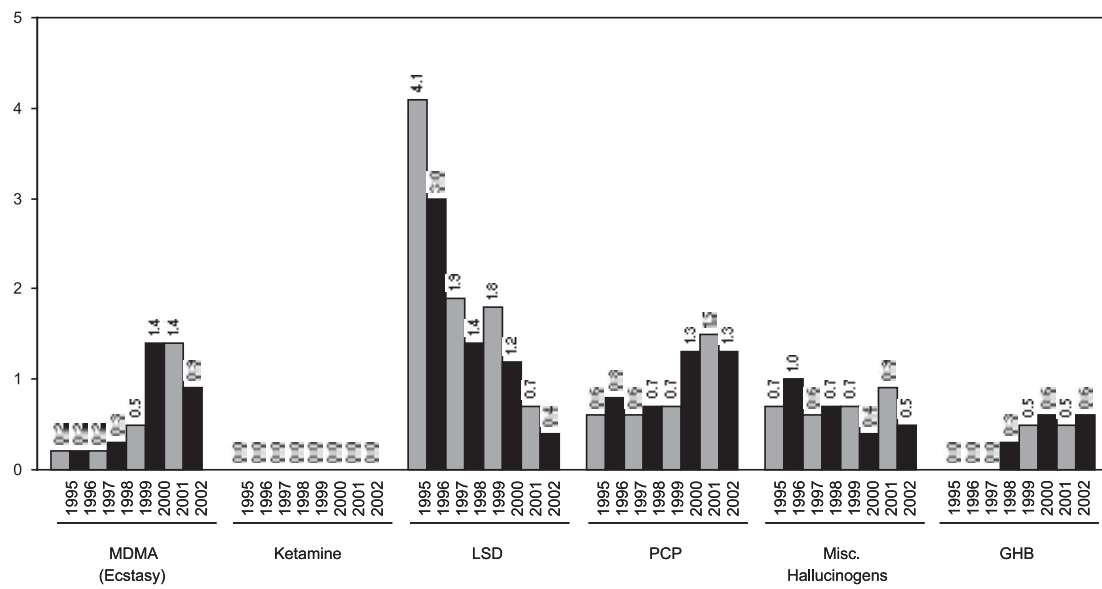
<sup>1</sup>Illegal Drug Mentions are mentions in the DAWN category “Major Substances of Abuse” (not including mentions for alcohol-in-combination).

Exhibit 2 (Continued)

Rate per 100,000 Population



Proportion (Percent) of Illegal Drug Mentions



SOURCE: DAWN, OAS, SAMHSA

Exhibit 3. Demographic Characteristics of Alcohol/Drug Treatment Admissions<sup>1</sup> in Seattle-King County, by Primary Drug: 2002

Demographic Characteristic	Alcohol			Cocaine			Heroin			Methamphetamine			Marijuana			All Other Drugs		
	n	Col. %	Row %	n	Col. %	Row %	n	Col. %	Row %	n	Col. %	Row %	n	Col. %	Row %	n	Col. %	Row %
Gender																		
Male	2,094	70.86	45.12	456	50.28	9.83	601	58.01	12.95	308	50.24	6.64	1,027	70.68	22.13	155	58.1	3.33
Female	861	29.14	33.24	451	49.72	17.41	435	41.99	16.80	305	49.76	11.78	426	29.32	16.45	112	41.9	4.34
Age																		
Youth	230	7.78	18.11	16	1.76	1.26	6	0.58	0.47	60	9.79	4.72	887	61.05	69.84	71	26.6	5.60
Adult	2,725	92.22	45.71	891	98.24	14.95	1,030	99.42	17.28	553	90.21	9.28	566	38.95	9.50	196	73.4	3.28
Ethnicity																		
White	1,562	52.86	39.33	306	33.74	7.70	661	63.8	16.64	542	88.42	13.65	729	50.17	18.35	172	64.4	4.33
Black	513	17.36	33.38	428	47.19	27.85	198	19.11	12.88	5	0.82	0.33	351	24.16	22.84	42	15.7	2.76
Asian	165	5.58	51.89	33	3.64	10.38	8	0.77	2.52	7	1.14	2.2	93	6.4	29.25	12	4.5	3.76
Native Amer.	239	8.09	60.35	38	4.19	9.60	36	3.47	9.09	11	1.79	2.78	63	4.34	15.91	9	3.4	2.26
Hispanic	295	9.98	51.94	46	5.07	8.10	72	6.95	12.68	19	3.10	3.35	118	8.12	20.77	18	6.7	3.17
Mult. Race	68	2.30	33.83	25	2.76	12.44	26	2.51	12.94	16	2.61	7.96	58	3.99	28.86	8	3.0	4.00
Other	113	3.82	47.28	31	3.42	12.97	35	3.38	14.64	13	2.12	5.44	41	2.82	17.15	6	2.2	2.52
<b>Total</b>	<b>2,955</b>	<b>100</b>	<b>40.87</b>	<b>907</b>	<b>100</b>	<b>12.54</b>	<b>1,036</b>	<b>100</b>	<b>14.33</b>	<b>613</b>	<b>100</b>	<b>8.48</b>	<b>1,453</b>	<b>100</b>	<b>20.09</b>	<b>267</b>	<b>100</b>	<b>3.71</b>

SOURCE: Washington State TARGET data system—Structured Ad Hoc Reporting System

**Exhibit 4. Demographic Characteristics of Persons With HIV Diagnoses, Including AIDS, in Seattle-King County, Other Washington Counties, Washington State, and the United States: Through June 30, 2003<sup>1</sup>**

Totals/Characteristic	King County HIV Including AIDS		Other WA Counties HIV Including AIDS		Washington State HIV Including AIDS		United States <sup>2</sup> AIDS Only	
Cumulative diagnoses of HIV, including AIDS	8,879		4,741		13,620		886,575	
Cumulative HIV or AIDS deaths	3,911		2,029		5,940		501,669	
Number currently living with HIV, including AIDS	4,968		2,712		7,680		384,906	
Case Demographics	King County <sup>3</sup> HIV Including AIDS 07/2000–06/2003		Other WA Counties <sup>3</sup> HIV Including AIDS 07/2000–06/2003		Washington State <sup>3</sup> HIV Including AIDS 07/2000–06/2003		United States <sup>2</sup> AIDS Only 01/2000–12/2002	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Gender	890	89	432	78	1,322	85	92,057	73.88
Male	115	11	119	22	234	15	32,546	26.12
Female								
Age Group								
12 and younger	1	0	0	0	1	0	–	
13–19	9	1	9	2	18	1	–	
20–29	216	21	107	19	323	21	–	
30–39	471	47	223	40	694	45	–	
40–49	240	24	144	26	384	25	–	
50–59	54	5	46	8	100	6	–	
60 and older	14	1	22	4	36	2	–	
Race/Ethnicity								
White	617	61	353	64	970	62	35,688	28.64
Black	219	22	80	15	299	19	62,116	49.85
Hispanic	103	10	70	13	173	11	24,694	19.82
Asian/Pacific Islander	37	4	21	4	58	4	1,307	1.05
Native American	18	2	19	3	37	2	579	0.46
Multi-Race	6	1	0	0	6	N/A		
Unknown	5	0	8	1	13	1	219	0.18
Exposure Category								
Male-male sex (MSM)	651	65	258	47	909	58	49,316	39.58
Injection drug user (IDU)	64	6	76	14	140	9	31,849	25.56
MSM/IDU	61	6	36	7	97	6	5,914	4.75
Heterosexual contact	123	12	90	16	213	14	35,239	28.28
Blood product exposure	3	0	1	0	4	0	877	0.70
Mother at risk/has AIDS	1	0	0	0	1	0	311	0.25
Undetermined/other	102	10	90	16	192	12	1,097	0.88
<b>Total HIV Cases Diagnosed in Last 3 Years</b>	<b>1,005</b>		<b>551</b>		<b>1,556</b>		<b>124,603</b>	

<sup>1</sup>Data reported as of October 31, 2003.

<sup>2</sup>United States HIV data is not currently available in a format consistent with the Washington data. In addition, U.S. AIDS data do not include age distributions by year of diagnosis. The most current available national AIDS data are through December 2002. The U.S. data do not show specific incidence estimates for hemophilia or transfusion cases for 2000–2002, these numbers were interpolated from earlier incidence data.

<sup>3</sup>These cases were diagnosed with HIV infection between July 2000 and June 2003, and reported to Public Health - Seattle & King County or the Washington Department of Health as of 10/31/2003.

SOURCES: PHSKC, Washington State Department of Health, and Centers for Disease Control and Prevention

# Substance Abuse Trends in Texas

Jane Carlisle Maxwell, Ph.D.<sup>1</sup>

## ABSTRACT

Thirty percent of clients entering publicly funded treatment report a primary problem with cocaine. Cocaine remains a problem on the border with Mexico, as documented in the school surveys and arrestee data. Use of crack cocaine, which is at an endemic level, continues to move beyond African-American users to Anglo and Hispanic users. Alcohol is the primary drug of abuse in Texas in terms of dependence, deaths, treatment admissions, and arrests. Use among Texas secondary school students between 2000 and 2002 was stable. Heroin addicts entering treatment are primarily injectors, and they are most likely to be Hispanic or Anglo males. Hydrocodone is a much larger problem in Texas than is oxycodone or methadone. Codeine cough syrup continues to be abused, and its use is spreading. Seventy-five percent of youths entering treatment report marijuana as their primary problem drug. The 2002 school survey found use by seventh and eighth graders continues to decline, but use among older grades has increased since 2000. Treatment data show that marijuana clients admitted with criminal justice problems are less impaired than those who are not criminal justice referred. "Ice," which is smoked methamphetamine, is a growing problem. Xanax continues as a widely abused pharmaceutical drug. Club drug users differ in their sociodemographic characteristics, just as the properties of these drugs differ. Ecstasy treatment admissions are rising. GHB, GBL, and similar precursor drugs remain a problem, particularly in the Dallas/Fort Worth Metroplex area. Although indicators are down, Rohypnol remains a problem along the Mexican border. Ketamine continues as a problem. Use of marijuana joints dipped in embalming fluid that can contain PCP ("Fry") continues, with cases seen in the poison control centers, emergency departments, and treatment. DXM is a problem with adolescents. The proportions of AIDS cases of females and persons of color are increasing. In 2003, the proportion of cases due to the heterosexual mode of transmission exceeded the proportion of cases involving injecting drug use. Forty-one percent of persons testing positive for hepatitis C were exposed through injecting drug use.

## INTRODUCTION

### Area Description

The population of Texas in 2003 is 21,828,569, with 51 percent Anglo, 12 percent African-American, 34 percent Hispanic, and 3 percent "Other." Illicit drugs continue to enter from Mexico through cities such as El Paso, Laredo, McAllen, and Brownsville, as well as smaller towns along the border. They 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.

A major problem is that Mexican pharmacies sell many controlled substances to U.S. citizens who can legally bring up to 50 dosage units into the United States. Private and express mail companies are used to traffic narcotics and smuggle money. Seaports are used to import heroin and cocaine via commercial cargo vessels, and the international airports in Houston and Dallas/Fort Worth are major ports for the distribution of drugs in and out of the State.

### Data Sources and Time Periods

Substance Abuse Trends in Texas is an ongoing series which is published every 6 months as a report to the Community Epidemiology Work Group meetings sponsored by the National Institute on Drug Abuse. To compare December 2003 data with earlier periods, please refer to previous editions that are available in hard copy from the Texas Commission on Alcohol and Drug Abuse (TCADA) or on the TCADA Web page at <http://www.tcada.state.tx.us/research/subabusettrends.html> and at the Drug Trends link on the Web page of the Gulf Coast Addiction Technology Transfer Center at <http://www.utattc.net>.

The information on each drug is discussed in the following order of sources:

- **Student substance use**—Data came from TCADA's Texas School Survey of Substance Abuse: Grades 7–12, 2002 and Texas School Survey of Substance Abuse: Grades 4–6, 2002.

<sup>1</sup> The author is affiliated with The Gulf Coast Addiction Technology Transfer Center, The Center for Social Work Research, The University of Texas at Austin, Austin, Texas.



- **Adult substance use**—Data came from TCADA’s 2000 Texas Survey of Substance Use Among Adults.
- **Use by Texans age 12 and older**—Data came from the Substance Abuse and Mental Health Services Administration (SAMHSA) State Estimates of Substance Use from the 2001 National Household Survey on Drug Abuse: Volume I. Findings, and Volume II. Individual State Tables and Technical Appendices.
- **Poison control center data**—The Texas Department of Health (TDH) provided data from the Texas Poison Control Centers for 1998 through the first half of 2003.
- **Emergency department (ED) mentions**—Mentions of drugs in the Dallas-area EDs through 2002 came from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), SAMHSA. The number of mentions of almost all drugs decreased in the last 2 years. Investigation of response patterns, procedures, and adjustments to sampling weights for Dallas hospitals revealed nothing that was likely to account for the decreases in estimates reported here. However, the impact of changes preparatory to the DAWN redesign and the change in the data collection contractor in 2002 might have affected the numbers. Hence, the DAWN data are included to show age and gender characteristics of patients, but the reader is cautioned against drawing conclusions about trends unless they are noted in the text.
- **Treatment data**—TCADA’s Client Oriented Data Acquisition Process (CODAP) provided data on clients at admission to treatment in TCADA-funded facilities from first quarter 1983 through June 30, 2003. For most drugs, the characteristics of clients entering with a primary problem with the drug are discussed, but in the case of emerging club drugs, information is provided on any client with a primary, secondary, or tertiary problem with that drug.
- **Overdose death data**—Statewide data on drug overdose deaths through 2001 came from death certificates from the Bureau of Vital Statistics of TDH. Data on the deaths in Dallas and San Antonio metropolitan areas came from 2001 medical examiner (ME) data collected by DAWN.
- **Drug use by arrestees**—The Arrestee Drug Abuse Monitoring (ADAM) program of the National Institute of Justice (NIJ) provided data through first quarter 2003 for Dallas, second quarter 2003 for San Antonio, and through 2002 for Laredo.
- **Drugs identified by laboratory tests**—The Texas Department of Public Safety (DPS) submitted results from toxicological analyses of substances seized in law enforcement operations for 1998 through September 2003 to the National Forensic Laboratory Information System (NFLIS) of the Drug Enforcement Administration (DEA).
- **Price, purity, trafficking, distribution, and supply**—This information was provided by fourth quarter 2003 reports on trends in trafficking from the Dallas, El Paso, and Houston Field Divisions of DEA.
- **Reports by users and street outreach workers**—Drug trends for January–November 2003 were reported to TCADA by street outreach workers and to the author as part of a study funded by NIDA - grant R21 DA014744.
- **Acquired immunodeficiency syndrome (AIDS) data**—TDH provided annual and year-to-date AIDS data for the period ending September 2003.
- **Hepatitis C (HCV) data**—TDH provided data on HCV counseling and testing for the period January 2003 to October 15, 2003.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

The Texas School Survey of Substance Abuse: Grades 7–12 2002 found that 7.2 percent of students in nonborder counties had ever used powder cocaine, and 2.5 had used cocaine in the past month. In comparison, students in schools on the Texas border reported higher levels of powder cocaine use: 13.3 percent lifetime and 6.0 percent past-month use. Use of crack was lower, with nonborder students reporting 2.7 past month use; border students reported 4.0 percent lifetime and 1.5 percent past-month use (exhibit 1).

The 2000 Texas Survey of Substance Use Among Adults reported 11.8 percent of Texas adults had ever used powder cocaine. Some 1.9 percent had used it in the past year. The National Household Survey on Drug Abuse averaged the 2000 and 2001 findings and reported that 1.93 percent of Texans ages 12 and older had used cocaine in the past year.

Texas Poison Control Centers reported 497 cases of misuse or abuse of cocaine in 1998, 498 in 1999, 874 in 2000, 1,024 in 2001, 1,195 in 2002, and 532 through the first half of 2003.

Exhibit 2 shows that the rate of cocaine ED mentions per 100,000 population in Dallas is continuing to decrease from the peak period in 1998. This may reflect changes in the reporting system rather than an actual trend.

Cocaine (crack and powder) accounted for 30 percent of all adult admissions to TCADA-funded treatment programs in the first half of 2003. Crack cocaine is the primary illicit drug abused by clients admitted to publicly funded treatment programs in Texas, at 22 percent of all admissions.

Abusers of powder cocaine represent 8 percent of all adult admissions to treatment. Cocaine inhalers are the youngest and most likely to be Hispanic and involved in the criminal justice or legal system. Cocaine injectors are older than inhalers but younger than crack smokers and are most likely to be Anglo (exhibit 3).

The term “lag” refers to the period from first consistent or regular use of a drug to date of admission to treatment. Powder cocaine inhalers average 9 years between first regular use and entrance to treatment, while injectors average 13 years of use before they enter treatment.

Between 1987 and 2003, the percentage of Hispanic treatment admissions using powder cocaine has increased from 23 percent to 45 percent, while for Anglos, the percent has dropped from 48 percent to 44 percent, and for African-Americans, from 28 percent to 10 percent. Exhibit 4 shows these changes by route of administration. It also shows the proportion of African-American crack cocaine admissions dropped from 75 percent in 1993 to 51 percent in 2003, while the proportion of Anglos increased from 20 percent in 1993 to 33 percent in 2003, and the percentage of Hispanic admissions has gone from 5 percent to 15 percent in the same time period.

Some 6 percent of all adolescent treatment admissions in 2003 were for powder cocaine, and 2 percent were for crack cocaine. Of the powder cocaine users, 72 percent were Hispanic, 24 percent were Anglo, and 1 percent were African-American. Of the crack users, 68 percent were Hispanic, 26 percent were Anglo, and 6 percent were African-American. The

average age of both groups was 16 years. Eighty percent of the powder users and 78 percent of the crack users were involved in the juvenile justice system.

The number of deaths statewide in which cocaine was mentioned increased to a high of 491 in 2001 (exhibit 5). The average age of the decedents increased to 38.7 years in 2001. Of these, 42 percent were Anglo, 28 percent were Hispanic, and 28 percent were African-American. Seventy-six percent were male.

The DAWN ME system reported that the number of deaths in the Dallas metropolitan area involving a mention of cocaine increased from 134 in 1996 to 185 in 2001, while in San Antonio, the number of deaths with a mention of cocaine increased from 63 in 1996 to 130 in 2001.

The proportion of arrestees testing positive for cocaine has decreased from the peak periods in the early 1990s. The high percentage of male arrestees in Laredo testing positive for cocaine through 2003 shows the extent of the cocaine problem on the border, and the increase in cocaine positives in San Antonio shows the increase in use by Hispanics in nonborder areas (exhibit 6).

Exhibit 7 shows the proportion of substances identified as cocaine by the DPS labs is decreasing. In 1998, cocaine was 40 percent of all items examined, as compared to 30 percent in 2003.

In the fourth quarter of 2003, powder cocaine was reported by the Dallas DEA Field Division as being abundant and available in multikilogram quantities. The Metroplex is both a transshipment point and a center for regional distribution. It is reported by DEA to be readily available in Lubbock and in small towns and rural communities in that area. It is also reported to be available in the Tyler area, where a significant amount is converted to crack. Its availability in the Houston Field Division is described as consistent except that availability has increased slightly in Laredo.

Throughout the State, a rock of crack costs between \$10 and \$50, with \$10–\$20 being the most common price. An ounce of crack cocaine costs \$325–\$600 in Houston, \$750–\$1,100 in Dallas, \$600–\$750 in Tyler, \$500–\$800 in Beaumont, \$650–\$850 in Amarillo and Lubbock, \$400–\$600 in San Antonio, \$830 in El Paso, \$600 in McAllen, \$700–\$750 in Fort Worth, \$800–\$900 in Midland, and \$450–\$500 in Austin.

A gram of powder cocaine costs \$50–\$80 in Dallas, \$70–\$110 in San Antonio, \$70–\$90 in Midland,

and \$100 in Amarillo and Lubbock. Cocaine is less expensive at the border. An ounce costs \$400–\$500 in Laredo, \$500–\$600 in El Paso, \$400–\$650 in Houston, \$650–\$1,000 in Dallas, \$600 in Alpine, \$450–\$550 in McAllen, \$500–\$700 in San Antonio, \$650–\$850 in Amarillo and Lubbock, \$700–\$1,000 in Tyler, and \$750 in Fort Worth. The price for a kilogram ranges between \$11,000 and \$23,000 across the State (exhibit 8).

In Austin, street outreach workers report an increase in the number of young Hispanic males in their teens and early twenties who are using crack, as well as increasing use of crack by older heroin addicts who smoke it at night after using heroin during the day. Crack is being cut with vitamin B-12 to “give it a speed effect,” and a price war has resulted in two rocks of crack being sold for \$15 rather than the usual price of one rock for \$10. Injected cocaine is in the powdered acidic form, while baking soda and water are added to powdered cocaine to turn it into its base form for smoking. In order to turn crack back into an acidic form to inject, it is being mixed with citric acid or lemon juice, and there are reports of using Kool-Aid, instead of citric acid. These users report that they can taste the different Kool-Aid flavors after the injection gets into their system. Another way to return crack back to cocaine hydrochloride is by dissolving the crack in water over heat, where it will collect and harden on a piece of wire, such as the end of a coat hanger. It can then be scraped off and snorted or injected.

In the Beaumont area, 32 percent of those screened by the HIV outreach program reported crack and powder cocaine as their drug of choice. In the Longview area, crack is the most popular drug of choice, and in Fort Worth, use is stable but the price has decreased.

### Alcohol

Alcohol is the primary drug of abuse in Texas. The 1998 secondary school survey found that 72 percent had ever drunk alcohol, and 38 percent had drunk in the last month. In 2002, 71 percent had ever used alcohol, and 35 percent had drunk in the last month.

Heavy consumption of alcohol or binge drinking, which is defined as drinking five or more drinks at one time, is of concern. About 17 percent of all secondary students said that when they drank, they usually drank five or more beers at one time, and 14 percent reported binge drinking of wine coolers and liquor. Binge drinking increased with grade level. Among seniors, 29 percent binged on beer and 19

percent on liquor. The percentage of students who normally drank five or more beers has decreased since 1988, while the percentage of students binge drinking with wine or wine coolers has fallen from its peak in 1994. It is still higher than in 1988 (exhibit 9). The percentage of students binge drinking with hard liquor has remained relatively stable since 1994.

Among students in grades four to six in 2002, 25 percent had ever drunk alcohol, and 16 percent had drunk in the past school year.

The 2000 Texas adult survey found that 50.3 percent of Texas adults reported having drunk alcohol in the past month. Some 17 percent reported binge drinking, 6 percent reported heavy drinking in the past month, and 5.1 percent of all adults met the criteria for being dependent on alcohol. This estimate was based on the Diagnostic and Statistical Manual of Mental Disorders, III-R.

Based on the 2000 and 2001 findings of the National Household Survey on Drug Abuse, past-month use of alcohol by Texans ages 12 and over was 44.2 percent, and past-month binge use was 21.5 percent. Some 2.3 percent met the criteria for alcohol dependence based on the Diagnostic and Statistical Manual of Mental Disorders-IV.

The number of mentions per 100,000 population of alcohol-in-combination with other drugs in Dallas EDs peaked in 1998 (exhibit 10).

In the first half of 2003, 33 percent of adult clients admitted to publicly funded programs had a primary problem with alcohol. They were the oldest of the clients (average age of 38), and 71 percent were male. Some 59 percent were Anglo, 23 percent were Hispanic, and 16 percent were African-American.

Among adolescents, alcohol accounted for 10 percent of all treatment admissions. Some 69 percent were male; 65 percent were Hispanic, 28 percent were Anglo, and 5 percent were African-American. Seventy-six percent were involved with the juvenile justice or legal systems.

Far more persons die as an indirect result of alcohol, as exhibit 11 shows. Direct deaths are those in which the substance, alcohol or drugs, caused the death, while indirect deaths are those in which the actual cause of death was due to another reason, such as a car wreck or a violent crime, but alcohol or drugs were involved.

The DAWN medical examiners reported that 38 percent of the drug-involved deaths in the Dallas metropolitan area and 44 percent of the deaths in the San Antonio metropolitan area in 2001 also involved alcohol.

More Texans are arrested for public intoxication (PI) than for any other substance abuse offense, although the arrest rate for PI per 100,000 is decreasing. The rates for the other substance abuse offenses are fairly level (exhibit 12).

### Heroin

The proportion of Texas secondary students reporting lifetime use of heroin dropped from 2.4 percent in 1998 to 1.6 percent in 2000 to 1.7 percent in 2002. Past-month use dropped from 0.7 percent in 1998 to 0.5 percent in 2000 and 2002.

The 2000 Texas adult survey found that 1.2 percent of adults reported lifetime use of heroin, and 0.1 percent reported past-month use.

Calls to Texas Poison Control Centers involving confirmed exposures to heroin have varied: 181 in 1998, 218 in 1999, 295 in 2000, 241 in 2001, 221 in 2002, and 108 in the first half of 2003.

The rate of ED mentions of heroin per 100,000 population has dropped since the peaks in 1997 and 1998 (exhibit 13).

Heroin ranks third after alcohol and cocaine as the primary drug for which adult clients are admitted to treatment. In 1993, it represented 9 percent of all admissions, as compared to 11 percent in 2003. The characteristics of these addicts vary by route of administration, as exhibit 14 illustrates. Most heroin addicts entering treatment inject heroin. While the number of individuals who inhale heroin is small, it is significant to note that the lag period from first use and seeking treatment is 9 years rather than 16 years for injectors. This shorter lag period means that contrary to street rumors that “sniffing or inhaling is not addictive,” inhalers can become addicted and will either enter treatment sooner while still inhaling, or they will shift to injecting, increase their risk of hepatitis C and HIV infection, become more impaired, and enter treatment later.

Exhibit 15 shows that the proportion of clients who are Hispanic has increased since 1996, but there has been little change between 2002 and 2003.

Only 0.7 percent (24 youths) of all adolescents admitted to TCADA-funded treatment programs reported a primary problem of heroin. Of these youths, 67 percent were Hispanic, 17 percent were Anglo, and 13 percent were African-American.

DEA reported that in the third quarter of 2003, there were nine deaths from heroin overdoses in Corpus Christi. The number of deaths statewide with a mention of heroin or narcotics decreased from a high of 374 in 1998 to 339 in 2001 (exhibit 16). Those who died in 2001 were Anglo (54 percent), Hispanic (36 percent), or African-American (8 percent). Some 81 percent were male. The average age was 39.1 years.

The DAWN ME reporting system, which collects more detailed reports from medical examiners in the Dallas and San Antonio areas, reported that the number of deaths involving a mention of heroin or morphine in the Dallas area increased from 66 in 1996 to 76 in 2001. In the San Antonio area, the number of deaths mentioning heroin/morphine increased from 51 in 1996 to 88 in 2001.

The results for arrestees testing positive for opiates between 1991 and 2003 have remained mixed (exhibit 17).

Exhibit 7 shows that the proportion of items identified as heroin by DPS labs has remained consistent at 1 to 2 percent over the years.

According to DEA, heroin from Mexico remains available. The Mexican states of Guerrero, Oaxaca, and Michoacan are the primary sources, and distribution is controlled by the Mexican Mafia and Texas Syndicate. The DEA Houston Field Division reports brown and black tar heroin are available throughout the area, but white heroin is available in isolated instances in the large metropolitan areas. The Dallas Field Division reports Mexican traffickers are now producing white and beige-colored heroin utilizing Colombian production methods. Mexican heroin has traditionally been lower in purity than Colombian or Asian. The presence of a higher quality heroin in Texas will mean more overdoses and more users become addicted.

DEA's Domestic Monitor Program (DMP), which reports the price and purity of heroin, found that in 2002, Mexican heroin remained the most readily available type of heroin in Dallas, accounting for 29 of the 33 qualified samples purchased by DEA agents. However, white heroin has begun to appear in this market. In 2000, no Southeast Asian heroin pur-

chases were made in Dallas, as compared to five in 2001. In 2002, four Southeast Asian heroin samples were purchased. They averaged 18 percent pure and cost \$0.46 per milligram pure. Analysis of these samples, however, determined that three of them were purchased on the same date and were chemically identical. The Mexican heroin samples averaged 17.2 percent pure and cost \$0.75 per milligram pure.

In El Paso in 2002, only seven qualified samples were purchased. They were all Mexican heroin, averaging 40.3 percent pure and \$0.27 per milligram pure. In Houston in 2002, 39 qualified samples were purchased. All were Mexican heroin. They averaged 28.2 percent pure and cost \$0.64 per milligram pure. The Houston exhibits ranged from 3.7 to 58.8 percent pure. One exhibit contained heroin at 13.9 percent and cocaine at 4.5 percent.

In June 2002 in Austin, five heroin exhibits were purchased, and all five were samples of Mexican origin. They averaged 20.5 percent pure. Two of the exhibits were just over 6 percent pure. The remaining four exhibits, however, averaged just over 30 percent pure, suggesting broad fluctuations in the market that could be dangerous for new users.

In December 2002, intelligence information in the Corpus Christi-Robstown area indicated that Mexican brown powder was the heroin of choice, and purity levels were generally low. Four heroin exhibits were purchased as part of the program, and three of them were determined to be Mexican heroin. Those three samples averaged 6.8 percent pure.

Six heroin purchases were made between August and December 2002 in Laredo. Five of those purchases were Mexican heroin, averaging 57.6 percent pure. Four of those exhibits were more than 60 percent pure. Interestingly, the only exhibit for which a geographic origin could not be determined contained heroin at 8.3 percent pure and cocaine at 73.7 percent.

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. Statewide, the cost of an ounce of black tar heroin is up slightly (exhibit 18). Depending on the location, black tar heroin sells on the street for \$10–\$20 per capsule, \$100–\$350 per gram, \$800–\$4,500 per ounce, and \$35,000–\$50,000 per kilogram. In the Dallas area, heroin costs \$10–\$20 per cap, \$800–\$2,000 per ounce, and \$35,000–\$50,000 per kilogram. In Fort Worth, an ounce costs \$1,200–\$1,900, and a kilogram sells for \$50,000. In El Paso, heroin costs \$200

per gram, \$1,000–\$1,500 per ounce, and \$68,600 per kilogram. In Alpine, heroin costs \$325 per gram and \$2,100–\$2,200 per ounce. In Midland, an ounce costs between \$1,800 and \$4,000, and in Lubbock it costs \$250 per gram and \$3,500–\$4,500 per ounce. In Houston, an ounce costs \$1,200–\$2,300, in Laredo an ounce costs \$1,200–\$1,400, in McAllen an ounce costs \$1,200–\$1,800, in San Antonio, an ounce costs \$1,600–\$2,800, and in Austin an ounce costs \$2,200–\$2,500.

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, \$110–\$300 per gram, and \$800–\$3,000 per ounce in the Dallas field office area. In Fort Worth, it is packaged in a gel capsule and referred to as “a pill,” with 10–15 pills in a gram. In San Antonio, it costs \$17,000–\$27,000 per kilogram.

Colombian heroin sells for \$10 per cap, \$2,000 per ounce, and \$70,000–\$80,000 per kilogram in Dallas; \$62,000–\$80,000 per kilogram in Houston; and \$100,000 per kilogram in McAllen. Southwest Asian heroin costs \$200–\$350 per gram, \$2,000–\$4,000 per ounce, and \$70,000 per kilogram in Dallas. Gram quantities of Southwest Asian have not been reported as available until this report.

This correspondent has been involved in interviewing heroin addicts in treatment in methadone programs in Austin, Dallas, Fort Worth, Houston and San Antonio. This study of the differences in heroin inhalers and injectors is funded by NIDA grant DA014744. As noted in exhibit 14, heroin addicts who are inhaling or snorting heroin enter treatment earlier. Preliminary field notes indicate that reasons addicts give for snorting heroin include being afraid of needles or of overdosing, having seen the effects of injecting (“they lose everything”), knowing the reputation of injectors as “junkies” and their low social status, or the fact that their habits have not grown to the point they need to inject.

Some injectors never heard or thought about snorting heroin; they were only exposed to people who injected. Others reported that injecting is a “much better high,” or that injecting was “more economical.” Others reported that they injected because black tar, which is not inhalable, was the only type of heroin available. Others injected because snorting hurt their noses and sinuses.

Some addicts started as snorters and then shifted to injecting, while others continued to use both routes

of administration, depending on whether needles were available, their friends were snorting or injecting, they had lost their veins, or they had to prove they had no needle tracks to their probation or parole officers or to their spouses. In addition, there were older addicts who had started as inhalers, shifted to injecting, then went through treatment and had ceased heroin use. However, they had relapsed and were snorting heroin but were worried about the possibility of shifting to needles and came into treatment this time as snorters.

Because of the oily, gummy consistency of black tar heroin, special steps must be taken to convert the heroin into brown powder so that it can be snorted. Since brown powder has been “cut,” novice users and users who want to maintain smaller habits prefer brown heroin. “Cuts” include dormin, mannitol, lactose, benedryl, Nytol, baby laxative, vitamin B, and coffee creamer. The tar heroin can be frozen, the “cut” added, and then pulverized in a coffee grinder or with mortar and pestle. It can also be dried out on a plate over the stove, on a dollar bill over a lighter, or under a heat lamp and then pulverized.

Addicts who do not have the time or equipment to turn tar into powder or do not have a sharp needle can mix the tar with water and squirt it into their nose with a syringe barrel (with or without the needle) or with a Visine bottle. They may also pour it into their nose with a teaspoon or medicine dropper or inhale the liquid with a straw. This is known variously as “shebang,” “waterloo,” “agua de chango,” or “monkey water.” Injectors also report using this method when they are in situations where they cannot inject.

In Austin, heroin is sold in grams and balloons, and black tar heroin is usually cut with lactose to produce brown heroin. A gram quantity of black tar heroin, which would be about the size of a marble, is packaged in black plastic or in a finger cot. A gram of tar costs \$250 and would average 12–16 shots. Small colored water balloons are used to package a single dose or shot. While an ounce of tar would be about three-fourths the size of a golf ball, an ounce of brown heroin would be a little bigger than a golf ball since it has been cut and powdered. There would be about 1.5 times as many shots from a gram of brown heroin. Ounces of heroin are packaged as balloons or in small zip lock bags in Austin.

In December 2003, street outreach workers in Austin reported that white heroin that is two to three times as potent but as cheap as Mexican brown heroin is being marketed by the Aryan brotherhood, and that a

creamy Mexican heroin is on the street. The creamy Mexican heroin sells for \$80 per gram, and addicts who were injecting 100 units of black tar a day are getting by on 40 units of this new heroin. In addition, they report there is no film on the cotton, which would indicate an improvement in the method of processing the heroin. There have also been reports of people smoking heroin by putting it on a light bulb and then inhaling the smoke through a straw. The type and quality of heroin varies around town, with some neighborhoods having tar and others having brown powder. Six balloons of powder sell for \$60, while seven balloons of the stronger tar can sell for \$100.

In Dallas, heroin is sold as grams, in pills, or in “papers,” which are pieces of tin foil. It is usually cut with dormin and sold as a cap. HIV outreach workers in Longview report that use of heroin is low at this time.

In Fort Worth, heroin is sold as grams, “pills,” and “turds.” It is cut with magnite and the AIDS outreach workers report that heroin is becoming popular with younger people who are snorting the drug. Smoking heroin is increasing. Injecting remains the most popular route of administration by older heroin addicts, who are reported to have a low incidence of HIV and HCV due to controlling their own works and refusing to share.

In Houston, heroin is sold in grams and is cut with lactose. Inhaling or snorting heroin is not as common in Houston. In San Antonio, heroin is sold as “dimes,” “balloons,” “spoons,” or in grams, and it is usually cut with lactose. In San Antonio, users report a number of different ways to turn black tar into brown powder heroin. AIDS outreach workers report users continue to speedball, which is injecting cocaine and heroin together.

### 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 2000 Texas adult survey found that in 2000, lifetime use of other opiates was 4.4 percent, and past-month use was 0.5 percent. In comparison, in 1996, lifetime use was 3 percent, and past-month use was 0.2 percent. Some 2.3 percent of Texas adults in 2000

reported ever having used codeine, and 0.7 percent used in the past year. Lifetime use of hydrocodone was 0.7 percent, and past-year use was 0.4 percent.

Hydrocodone is a larger problem in Texas than is oxycodone. The Texas Poison Control Centers reported there were 192 cases of abuse or misuse of hydrocodone in 1998, 264 in 1999, 286 in 2000, 339 in 2001, 429 in 2002, and 147 in the first half of 2003. In comparison, there were 12 calls about misuse or abuse of oxycodone reported in 1998, 26 in 1999, 22 in 2000, 56 in 2001, 68 in 2002, and 23 in first half of 2003. There were also 16 cases involving misuse or abuse of methadone in 1998, 19 in 1999, 32 cases in 2000, 28 in 2001, 54 in 2002, and 20 in the first half of 2003.

Dallas-area ED mentions of drugs containing methadone, codeine, hydrocodone, and oxycodone (either alone or in combination with other substances) have varied over the years. Given the unexplainable decrease in Dallas DAWN mentions of other drugs, the increase in oxycodone mentions is of concern (exhibit 19).

Some 5 percent of all adults who entered treatment during 2003 used opiates other than heroin. Of these, 28 used illegal methadone and 1,094 used other opiates. Those who reported a primary problem with illicit methadone were equally likely to be male or female (50 percent each), 36 years old, Anglo (82 percent), Hispanic (11 percent), or African-American (7 percent). Four percent were homeless, 4 percent were employed, 25 percent were referred by the criminal justice system, and 25 percent had never before been in treatment. Of those with problems with other opiates, 57 percent were female, the average age was 35, 83 percent were Anglo, 35 percent had never been in treatment, 9 percent were homeless, 14 percent were employed, and 30 percent were referred by the criminal justice system.

There were 8 deaths statewide with a mention of oxycodone in 1999, 20 in 2000, and 40 in 2001. There were 25 deaths involving hydrocodone in 1999, 52 in 2000, and 107 in 2001. There were also 36 deaths involving methadone in 1999, 62 in 2000, and 93 in 2001. There were nine deaths in 2001 involving fentanyl. The DAWN ME system reported that there were 36 deaths in the Dallas area with a mention of hydrocodone and 21 in the San Antonio area in 2001. There were also 35 deaths in San Antonio with a mention of methadone in 2001.

In the Dallas-Fort Worth DEA Field Division,

Dilaudid sells for \$20–\$80 per tablet, Soma sells for \$2–\$5 per tablet, and hydrocodone (Vicodin) sells for \$3–\$10 per tablet. OxyContin sells for \$20 per tablet. Methadone sells for \$10 per 10-milligram tablet, and promethazine with codeine sells for \$200–\$300 per pint in Dallas and \$40 for a 2-ounce bottle in Tyler. In Houston, promethazine or phenergan with codeine sells for \$125 for 8 ounces, and in San Antonio, hydrocodone sells for \$3 per pill. In McAllen, 60 Vicodin pills sell for \$85.

A “cold shake” is when a tablet of dilaudid is turned to powder and put in a syringe with cold water and then shaken to dissolve the particles prior to injecting it.

DPS labs reported examining 479 hydrocodone exhibits in 1999, 629 in 2000, 771 in 2001, 747 in 2002, and 688 in the first 9 months of 2003. In comparison, the number of exhibits involving oxycodone was 36 in 1999, 72 in 2000, 115 in 2001, 106 in 2002, and 85 in 2003. The number of exhibits involving methadone increased from 1 in 1998 to 19 in 1999, 22 in 2000, 42 in 2001, 49 in 2002, and 40 in the first 9 months of 2003.

“Lean” (codeine cough syrup) has long been popular in Houston, and it is reported by street outreach workers as becoming more popular in Beaumont, San Antonio, and Waco, as well as among youth and young adults in the suburban areas of Fort Worth. In Austin, “Lean” or “Drank” is called a “nighttime drug” by some younger adults. They like to use it at night because they can use it for nodding or going into what they call “slightly sleep.” They cut the syrup as mild or strong as desired with orange or strawberry soda water. There are also some reports of older adults now using “Lean.” It is readily available and is usually sold in baby bottles and measured out in ounces. Texas rappers are singing about it, and older adolescents and younger adults (16–25-year-olds) are using it. One pint costs \$200–\$250, but it can sometimes cost as much as \$350. People sometimes mix about 6 to 8 ounces in a 3-liter bottle of soft drink. A very small bottle of Robitussin or “Lean” is sold on the street for \$20–\$60. It is usually cut or mixed with Karo syrup and put in soda water to drink. T-shirts that advertise “Lean” are sold in Austin, and drinking Lean has spread from the African-American community to Hispanics and Anglos. Pineapple-flavored soda water is now a favorite to mix with cough syrup.

HIV outreach workers report that in Beaumont, OxyContin is the drug of choice among most inject-

ing drug users screened at the program, and that 25 percent of those screened in Hardin County reported that Vicodin and OxyContin were their drugs of choice. OxyContin is available on the streets in Austin, also.

### **Marijuana**

The number of Texas students in grades 4–6 who had ever used marijuana dropped from 2.8 percent in 2000 to 2.6 percent in 2002, and use in the school year dropped from 2.1 percent to 1.7 percent. Among Texas secondary students, 32 percent had ever tried marijuana and 14 percent had used in the past month, levels identical to 2000. While use by students in seventh and eighth grades continued to drop, use by students in grades 9 and 10 increased from 2000. Use by students in grades 11 and 12 remained stable (exhibit 20).

In comparison, the 2000 Texas adult survey found that 37 percent of adults reported lifetime and 4 percent past-month marijuana use in 2000, as compared to 34 percent lifetime and 3 percent past-month use in 1996. Prevalence was much higher among younger adults. Thirteen percent of those aged 18–24 in 2000 reported past-month use, as compared to 6 percent of those aged 25–34 and 2 percent of those aged 35 and over. The increase in past-year use between 1996 and 2000 (6 percent to 7 percent) was statistically significant.

The 2000 and 2001 National Household Surveys on Drug Abuse estimated that 3.6 percent of Texans ages 12 and older had used marijuana in the past month, with 6.1 percent of those ages 12–17, 10.3 percent of those 18–25, and 1.9 percent of those ages 26 and older reporting past-month use.

The Texas Poison Control Centers reported that there were 130 cases involving misuse or abuse of marijuana in 1998, 172 in 1999, 360 in 2000, 358 in 2001, 412 in 2002, and 137 through the first half of 2003.

Mentions of marijuana per 100,000 in EDs in Dallas have declined since the peak level in 1998 (exhibit 21).

Marijuana was the primary problem for 11 percent of adult admissions to treatment programs in 2003. The average age of adult marijuana clients continues to increase: in 1985, the average age was 24; in 2003, it was 27.

Seventy-five percent of all adolescent admissions

in 2003 had a primary problem with marijuana, as compared to 35 percent in 1987. In 2003, 59 percent of these adolescents were Hispanic, 23 percent were Anglo, and 16 percent were African-American. In 1987, 7 percent were African-American. Eighty-three percent had legal problems or had been referred from the juvenile justice system, and these clients did not appear to be as impaired as those who did not have legal problems. The juvenile justice clients reported using marijuana on 7.6 days in the month prior to admission, as compared to 14.6 days for the nonjustice referrals. The same differences were reported for number of days in the past month that the second problem drug was used (2.5 days vs. 6.1 days) and number of days a third problem drug was used (2.2 days vs. 5.8 days). The Addiction Severity Index scores were lower for justice referrals for most measures: 34 percent of the criminal justice referrals reported employment problems vs. 44 percent non-criminal justice; for sickness or health problems, 11 percent vs. 11 percent; for family problems, 28 percent vs. 41 percent; for social problems with peers, 22 percent vs. 30 percent; for emotional problems, 16 percent vs. 16 percent; and for substance abuse problems, 30 percent vs. 35 percent. These data 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 marijuana users in need of more intensive treatment services.

The DAWN ME system reported there were 65 deaths in the Dallas metropolitan area in 2001 in which marijuana was one of the substances mentioned. In comparison, there were six in the San Antonio area.

The percentage of arrestees testing positive for marijuana remains varied (exhibit 22). It has dropped from its peak level in Dallas in 1997, but remains at its highest level in San Antonio.

Cannabis was identified in 35 to 36 percent of all the exhibits analyzed by DPS laboratories in 1999 and 2000, but dropped to 31 percent in 2001, 28 percent in 2002, and then was up to 30 percent in 2003 (exhibit 7).

The Houston DEA Field Division reports marijuana continues to be readily available, although a slight decrease in availability has been noted in McAllen. The El Paso Field Division also reports marijuana is readily available and is packaged in kilogram quantities, wrapped with cellophane, and then sealed with tan or brown tape. The Dallas Field Division reports that large amounts of imported Mexican marijuana,



coupled with domestically cultivated plants, as well as indoor-grow operations, continue to provide large amounts of cannabis to consumers locally and within the United States.

High-quality sinsemilla sells for \$900–\$1,200 per pound in the Dallas-Fort Worth area and \$600 per pound in Houston. The average price for a pound of commercial grade marijuana is \$140–\$160 in Laredo, \$130–\$200 in McAllen, \$350–\$450 in San Antonio, \$350–\$450 in Houston, \$800 in El Paso, \$500–\$700 in the Alpine area, \$375–\$600 in Midland, \$350–\$600 in the Dallas and Fort Worth areas, \$500–\$600 in Lubbock, and \$500–\$550 in Tyler. Locally grown indoor marijuana sells for \$6,000 per pound in Dallas, and hydroponic marijuana grown in Matamoros sells for \$120 for one-quarter pound in McAllen. Exhibit 23 shows the decline in prices since 1992.

In Austin, people are dipping cigars (stuffed with tobacco or marijuana) in cognac brandy. The effect is reported like a “downward” high, and people have trouble keeping their eyes open after smoking a dipped cigar. Mexican marijuana is available at \$425 per pound, \$50–\$60 per ounce, or \$2 per joint. There are various types of “Hydro” weed that come in bright neon colors and have brightly colored “hair” growing on it. The blue-haired variety is called “blueberry,” the orange-haired variety is called “grapefruit,” and there is also “white widow” or “keef,” as well as green and red varieties. A pound of this hydro is referred to as a “bow,” and a half-pound is called a “half bow,” with an ounce called an “O” and a half-ounce called a “1/2 O.” The price of hydro is \$180 per ounce, and it is reported to be of excellent quality.

### Stimulants

Uppers include prescription drugs such as the amphetamine pills Adderall and Ritalin (methylphenidate), as well as methamphetamines (“Speed,” “Crystal,” “Crank,” and “Ice”), and over-the-counter substances such as diet pills and cold medications that contain ephedrine.

The 2002 secondary school survey reported that the lifetime use of uppers was 8.1 percent in 1998, 6.7 percent in 2000, and 7.3 percent in 2002. Past-month use was 3.1 percent in 1998, 2.7 percent in 2000, and 3.3 percent in 2002.

Among Texas adults in 2000, 12 percent reported lifetime use and 1 percent reported past-month use of uppers in 2000. In comparison, in 1996, lifetime

use was 10 percent and past-month use was 1 percent. The difference in past-year use from 1996 to 2000 (1.1 percent to 1.9 percent) was statistically significant.

There were 220 calls to Texas Poison Control Centers involving abuse or misuse of amphetamines or methamphetamines in 1998, as compared to 282 in 1999, 393 in 2000, 451 in 2001, 392 in 2002, and 186 in the first half of 2003. In 2003, there were 18 mentions of “Ice,” which is smoked methamphetamine, and 13 mentions of “Crystal.”

Exhibit 24 shows the number of mentions of methamphetamines and amphetamines in Dallas EDs.

The presence of Ice is also seen in the treatment data. The percent of clients who injected methamphetamine has dropped from 84 percent in 1988 to 55 percent in 2003, while the proportion smoking “Ice” has gone from less than 1 percent in 1988 to 27 percent in 2003 (exhibit 25).

Methamphetamine and amphetamines constituted 9 percent of adult admissions in 2003; this is an increase from 5 percent in 2000. Exhibit 26 shows the characteristics of clients by route of administration. The average client admitted for a primary problem with stimulants is aging. In 1985, the average age was 26; in 2003, it was 30. The proportion of Anglo clients has risen from 80 percent in 1985 to 92 percent in 2003, while the proportion of Hispanics has dropped from 11 percent to 6 percent, and the proportion of African-Americans has dropped from 9 percent to 1 percent. Unlike the other drug categories, more than one-half of these clients entering treatment are women (51 percent). Those who took the substance orally tend to be users of amphetamine pills and are the most likely to be female. Only 3 percent of adolescent admissions were for stimulants.

Methamphetamine injectors are more likely to have been in treatment before (57 percent readmissions) as compared to amphetamine pill takers (51 percent), Ice smokers (38 percent readmissions), or inhalers (37 percent readmissions).

There were 17 deaths where amphetamines or methamphetamines were mentioned in 1997, 20 in 1998, 21 in 1999, 39 in 2000, and 51 in 2001. Of those who died in 2001, 82 percent were male and the average age was 36.2. Some 76 percent were Anglo, 18 percent were Hispanic, and 6 percent were African-American.

The DAWN ME system reported 37 deaths with a mention of methamphetamines and 4 with a mention of amphetamines in the Dallas metropolitan area in 2001. In San Antonio, there were 18 deaths with a mention of methamphetamines and 11 with a mention of amphetamines.

Given the high rate of seizures which proved to be methamphetamines or amphetamines when tested by the DPS labs, the low percentage of arrestees testing positive for amphetamines in ADAM is puzzling, although the percentages are increasing (exhibit 27).

To make methamphetamine, local labs are using the “Nazi method,” which includes ephedrine or pseudoephedrine, lithium, and anhydrous ammonia, or 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 accounted for between 12 and 18 percent of all items examined by DPS laboratories between 1998 and 2002 (exhibit 7), and the numbers continue to increase. In 2003, 22.2 percent were methamphetamines and 0.79 percent were amphetamines.

Notice that while the Dallas ED mentions in exhibit 24 are more likely to be reported as amphetamines, the DPS laboratory report for the Dallas area reported 35 percent of the exhibits were methamphetamines and 0.84 percent were amphetamines. There is no explanation for these differences.

Stimulants are more of a problem in the northern half of the State, as exhibit 28 shows. In Amarillo, a city in the Texas Panhandle, 55 percent of all the drug items examined by the DPS laboratory were either methamphetamines or amphetamines, while in McAllen and Laredo, less than 1 percent were. Labs in the northern part of the State are also more likely to report analyzing substances that turned out to be ammonia or pseudoephedrine, chemicals used in the manufacture of methamphetamine.

According to DEA, methamphetamine is readily available in all areas of the El Paso Field Division, except in Alpine. Methamphetamine is “cooked” in Midland, Odessa, and Monahans, and mobile labora-

tories are encountered in the east and northeast sections of El Paso. Methamphetamine is also smuggled across the border from Mexico. The Houston Field Division reports that multipound quantities of Mexican methamphetamine and smaller quantities of locally produced versions are available, and the drug is commonly available at clubs and raves. Both Mexican methamphetamine and locally produced methamphetamine in the San Antonio area are available. Methamphetamine is commonly seen in clubs and raves, with dealers reported to have provided free samples in an effort to build a consumer base. In Austin, Houston, and Beaumont, Ice is reported as more prevalent, with more trafficking by dealers from Mexico.

In the Houston division, most of the methamphetamine comes from Mexico, although motorcycle gangs and independent producers continue to produce small batches using pseudoephedrine, anhydrous ammonia, and phosphorus. Most methamphetamine seized in the Corpus Christi area was produced using the “Nazi” method, while in the McAllen area, most labs used the red phosphorus method. In the Austin area, Ice is more available. It is controlled and transported by biker gangs out of California, although intelligence indicates that Mexican traffickers are breaking into the market. Availability is high, with multipound quantities of Mexican methamphetamine and smaller amounts produced by local cooks. Availability is also increasing in the Lubbock and Amarillo areas because of more clandestine labs. Blister packs of cold tablets are the predominant supply source for pseudoephedrine, although the 240-milligram tablets are also seen. Red phosphorus can be purchased at gun shows, and there are reports of increasing use of lithium metal/anhydrous ammonia (“Nazi” method) in the manufacturing process. Precursor chemicals are difficult to obtain in Texas, and lab operators travel to Oklahoma or Louisiana to obtain needed supplies.

The Dallas Field Division reports an increase in high-purity methamphetamine, with numerous seizures and buys, usually at the multigram to multi-ounce level. Mexican traffickers are referring to all methamphetamine as “Ice” or “Crystal,” whether it is or not, and the “Ice” form is reported as the most abundant form of methamphetamine in selected areas such as Tyler. In other areas in the Dallas division, crystal methamphetamine is readily available and more prevalent than ever, with quantities up to 10 pounds available.

The price for a pound of methamphetamine is \$8,000 in the Houston area, \$4,500–\$5,500 in Laredo,

\$6,000–\$8,000 in San Antonio, \$5,000–\$10,000 in Fort Worth, and \$8,000–\$9,000 in Lubbock. In Dallas, a pound of domestic methamphetamine sells for \$4,000–\$8,000, an ounce sells for \$700–\$1,500, and a gram costs \$70–\$100. A pound of Mexican methamphetamine sells for \$5,800–\$9,000, and an ounce of this product sells for \$400 in Dallas. Ice sells for \$13,000–\$17,000 per pound in Houston, \$8,000–\$12,000 in San Antonio, and “Crystal” sells for \$12,000–\$16,000 in Dallas. In Austin, an ounce of Ice costs \$1,500.

In Beaumont, street outreach workers report methamphetamine is becoming more popular with youth, while in Longview, clients report Ice is popular, although crack is still more popular. Viagra is reported as being used with Ice. And in Fort Worth, mobile methamphetamine labs are increasing. These are panel trucks and vans that cook speed and move around the inner city to avoid detection. In addition, “Ice” users are being identified. This does not necessarily indicate an increase in Ice so much as the fact that more users are now naming Ice as their specific drug of choice.

### 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, and 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 2002 secondary school survey reported lifetime use of downers increased from 5.8 percent in 2000 to 7.1 percent in 2002. Past year use increased from 2.6 percent in 2000 to 3.4 percent in 2002.

The 2000 adult survey reported lifetime use of downers at 6.9 percent and past-month use at 0.6 percent; in 1996, lifetime use was 6.2 percent and past-month use was 0.3 percent. The difference in past-year use between 1996 and 2000 (1 percent to 1.8 percent) was statistically significant.

About 1.1 percent of the adults entering treatment in 2003 had a primary problem with barbiturates, sedatives, or tranquilizers.

There were 60 deaths in the Dallas metropolitan area in 2001 that involved benzodiazepines, and 36 of these mentioned diazepam, according to the DAWN ME reporting system. In the San Antonio area, there were 88 deaths with a mention of a benzodiazepine.

Alprazolam, clonazepam, and diazepam are among the 10 most commonly identified substances according to DPS lab reports, although none of them constitute more than 2 percent of all items examined in a year. The proportion of cases that are alprazolam (Xanax) continues to increase (exhibit 29).

Both Houston and Dallas DEA Divisions report alprazolam (Xanax) to be one of the most commonly abused diverted drugs. Xanax sells for \$3–\$10 per tablet, and diazepam (Valium) sells for \$1–\$10 per tablet. Street outreach workers report that in the Beaumont area, there has been an increase in clients requiring detoxification because they are dependent on Xanax, and use by youth is reported. In Austin, street outreach workers report a 1-milligram Klonopin pill costs \$2–\$3. Valium 10-milligram or 20-milligram pills can be purchased for \$1–\$2 and the blue 1-milligram football-shaped Xanax pills cost \$2 per pill. The 2-milligram Xanax pills (“white bars,” “handle bars,” or “four bars”) are scored and can be broken into four small pieces. They sell for \$4–\$5 per pill and they are very popular and readily available.

### Club Drugs and Hallucinogens

Exhibit 30 shows the number of mentions of different club drugs in the Dallas DAWN EDs. Note that even with the unexplainable decreases in mentions for most drugs in 2001–2002, the number of mentions of phencyclidine (PCP) increased.

Exhibit 31 shows the demographic characteristics of patients entering Dallas EDs in 2002. Based on this exhibit, users of gamma hydroxybutyrate (GHB) and PCP were the most likely to be male, users of PCP were most likely to be African-American, and users of ecstasy were the youngest.

Exhibit 32 shows the demographic characteristics of youths and adults entering TCADA treatment programs statewide with a problem with a club drug. The row “Primary Drug” shows the percent of clients who cited a primary problem with the club drug shown at the top of the column. The rows under the heading “Other Primary Drug” show the percent of clients who had a primary problem with another drug, such as marijuana, but who had a secondary or tertiary

problem with the club drug shown at the top of the column. Note that the treatment data uses a broader category, “Hallucinogens,” that includes lysergic acid diethylamide (LSD), dimethyltryptamine (DMT), dimethyloxymethylamphetamine (STP), mescaline, psilocybin, and peyote.

Based on exhibit 32, hallucinogen admissions are the most likely to be male, GHB clients are the most likely to be Anglo, PCP clients are the most likely to be African-American, 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, users of Rohypnol, ecstasy, and hallucinogens are more likely to have a primary problem with marijuana, rather than with a club drug.

Exhibit 33 shows the percent of exhibits identified by DPS laboratories that contained various club drugs. Notice the decrease in the percentage of cases involving ecstasy (3,4-methylenedioxymethamphetamine [MDMA] and 3,4-methylenedioxyamphetamine [MDA]).

#### *Ecstasy (MDMA)*

The 2002 secondary school survey reported that lifetime ecstasy use was 8.6 percent, up from 4.5 percent in 2000. Past-month use in 2002 was 3.1, as compared to 1.9 percent in 2000.

The 2000 adult survey reported that 3.1 percent had ever used ecstasy and 1.0 percent had used in the past year.

Texas Poison Control Centers reported 24 calls involving misuse or abuse of ecstasy in 1998, 45 in 1999, 116 in 2000, 155 in 2001, 172 in 2002, and 154 in the first half of 2003. The average age of abusers in 2003 was 21.1 years.

Exhibit 30 shows the number of mentions of ecstasy in the Dallas ED. Ecstasy users were younger than other club drug users (exhibit 31).

Adult and adolescent admissions for a primary, secondary, or tertiary problem with ecstasy have increased: 63 in 1998, 114 in 1999, 199 in 2000, 349 in 2001, 521 in 2002, and 312 in the first half of 2003. Exhibit 32 shows that in comparison to users of other club drugs, those who used ecstasy were more likely to be young, racially diverse, and 57 percent reported marijuana as their primary problem drug, as compared to 14 percent who reported ecstasy as their primary problem drug. Exhibit 34 shows that

ecstasy has spread outside the club scene and into the Hispanic and African-American communities.

In 1999, there were two deaths which involved ecstasy in Texas. There was one death in 2000 and five in 2001. Of those who died in 2001, the average age was 24.6; 80 percent were Anglo; 60 percent were male.

Exhibit 33 shows the increases in substances identified by DPS labs. The labs identified MDMA in 107 exhibits in 1999, 387 in 2000, 814 in 2001, 503 in 2002, and 253 in the first 9 months of 2003. MDA was identified in 31 exhibits in 1999, 27 in 2000, 48 in 2001, 90 in 2002, and 54 in the first 9 months of 2003.

According to the Houston DEA Field Division, ecstasy is available and is increasing in the Galveston and Beaumont areas. The primary source of ecstasy in south Texas is Mexico. The Dallas Field Division reports it is widely available in multithousand quantities in a wide variety of die stamp emblems and with a wholesale price of \$4–\$6 per pill. This has resulted in a decrease in prices in the Dallas/Fort Worth area. Large quantities are reportedly available even in Tyler. Single dosage units of ecstasy sell for \$6–\$20 in Dallas, \$12–\$25 in Tyler, \$16–\$20 in El Paso, \$20 in Galveston, \$9–\$25 in Houston, \$9–\$30 in McAllen, \$20–\$25 in Austin, \$20 in Laredo, and \$11–\$20 in San Antonio.

In Austin, ecstasy is reportedly being used by even younger persons who are Anglo, Hispanic, or African-American, and it has moved out of the club scene.

#### *Gamma Hydroxybutyrate (GHB), Gamma Butyrolactone (GBL), 1,4-Butanediol (1,4-BD)*

The 2000 Texas adult survey reported that 0.4 percent had ever used GHB, and 0.1 percent had used in the past year.

The number of cases of misuse or abuse of GHB reported to Texas Poison Control Centers was 110 in 1998, 153 in 1999, 108 in 2000, 113 in 2001, 100 in 2002, and 45 in the first half of 2003. The average age of the abusers in 2003 was 23.3 years.

Exhibit 30 shows that the mentions of GHB in the EDs in the Dallas area peaked in 2000. As shown in exhibit 31, patients mentioning GHB were more likely to be Anglo and older than patients mentioning ecstasy.

Adult and adolescent clients with a primary, secondary, or tertiary problem with GHB, GBL, or 1,4 butanediol are seen in treatment. In 1998, 2 were admitted, as compared to 17 in 1999, 12 in 2000, 19 in 2001, 35 in 2002, and 22 in first half of 2003. Clients who used GHB tended to be the oldest of all the club drug users and the most likely to be Anglo. GHB users were more likely to have used the so-called “hard-core” drugs: 36 percent had a history of injection drug use. Sixty-four percent had a problem with amphetamines or methamphetamines. Because of the sleep-inducing properties of GHB, users will also use methamphetamine so they can stay awake while they are “high.” GHB may also have been used to potentiate the effects of heroin, since 9 percent had a primary problem with heroin (exhibit 32).

In 1999, there were three deaths that involved GHB, and in 2000 there were five deaths, and three deaths in 2001.

In 1998, there were 18 items identified by DPS labs as being GHB, in 1999 there were 112 GHB, 4 GBL, and 4 1,4-BD (exhibit 33). In 2000, 45 were GHB, 7 were GBL, and four were 1, 4 BD. In 2001, 34 were GHB, seven were GBL, and 19 were 1,4 BD. In 2002, 81 were GHB, 6 were GBL, and 4 were 1,4-BD. In the first 9 months of 2003, 76 were GHB, 1 was GBL, and none were 1,4-BD. In 2003, 95 percent of the GHB 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, GHB is reportedly manufactured in laboratories set up in houses, with GBL ordered from the Internet along with other precursor chemicals such as sodium potassium. The price of a gallon of GHB has dropped: in the third quarter of 2002, a gallon sold for \$1,600; it now sells for \$100–\$200 per gallon. A dose of GHB costs \$20 in Dallas, \$5–\$10 in Lubbock, \$5–\$10 in McAllen, and \$25 in Austin and Tyler. A 16-ounce bottle costs \$100 in San Antonio and two 2-ounce bottles cost \$109.99 in Fort Worth. GHB is reported as more available in Houston.

### *Ketamine*

The 2000 adult survey reported that 0.3 percent had ever used ketamine, and 0.1 percent had used it in the last year.

Eight cases of misuse or abuse of ketamine were reported to Texas Poison Control Centers in 1998, 7 were reported in 1999, 15 in 2000, 14 in 2001, 10 in 2002, and 12 in the first half of 2003.

The number of ketamine mentions in the Dallas DAWN ED data has ranged between 1 and 11 over the years (exhibit 30).

Nine clients were admitted to TCADA treatment programs in the first half of 2003 with a secondary or tertiary problem with ketamine. The clients were older and evenly split between Anglo and Hispanic. One-third had a history of injection drug use, and all had problems with the legal or criminal justice system (exhibit 32).

There were also two deaths in 1999 which involved use of ketamine, none in 2000, and one in 2001.

In 1999, 25 substances were identified as ketamine by DPS labs. There were 29 in 2000, 119 in 2001, 78 in 2002, and 56 in the first 9 months of 2003 (exhibit 33).

Ketamine is reported to be obtained in Mexico and taken to Dallas, where it is “powdered out” or cooked until it turns into a crystal form. The pills are then stamped with various emblems and sold at dance parties, with a profit of \$6,000–\$7,000 per rave. In Houston, the liquid ketamine is dried to a white powder and then bagged for sale. Ketamine costs \$2,200–\$2,500 per liter in Fort Worth and between \$50 and \$60–\$65 per 10-milliliter vial in San Antonio and Tyler, where a pill sells for \$20.

Street outreach workers in Austin report ketamine is being sprinkled over blunt cigars filled with marijuana.

### *LSD*

The secondary school survey shows that use of hallucinogens (defined as LSD, PCP, etc.) is continuing to decrease. Lifetime use peaked at 7.4 percent in 1996 and had dropped to 4.5 percent by 2002. Past-month use dropped from 2.5 percent in 1996 to 1.2 percent in 2002.

The 2000 adult survey reported that 8.8 percent of Texas adults had ever used LSD and 0.9 percent had used in the past year.

Texas Poison Control Centers reported 64 mentions of abuse or misuse of LSD in 1998, 101 in 1999, 82 in 2000, 43 in 2001, 9 in 2002, and 9 in the first half of 2003. 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, and 41 in the first half of 2003.

There has been a substantial drop in the number of mentions of LSD in the Dallas DAWN ED reports (exhibit 30).

In the first half of 2003, 219 adults and youths with a primary, secondary, or tertiary problem with hallucinogens entered treatment, as compared to 436 in 2002, 486 in 2001, and 636 in 2000.

There were two deaths in 1999 that involved LSD. There were no deaths with a mention of LSD reported in 2000 or 2001.

DPS labs identified 69 substances as LSD in 1998, 406 in 1999, 234 in 2000, 122 in 2001, 10 in 2002, and 3 in the first 9 months of 2003 (exhibit 33).

A dosage unit of LSD is selling for \$1–\$10 in Dallas, \$5–\$10 in Tyler, \$6–\$10 in Fort Worth, \$7 in Lubbock, \$8–\$12 in San Antonio, \$5–\$7 in Austin, and \$5–\$10 in McAllen.

#### *Phencyclidine (PCP)*

The 2000 Texas adult survey reported that 0.9 percent of adults had ever used PCP or Angel Dust, and 0.1 percent had used it in the past year.

Texas Poison Control Centers reported cases of “Fry,” “Amp,” “Wack,” or “PCP.” Often marijuana joints were dipped in formaldehyde that contained PCP or PCP was sprinkled on the joint. Cases that referenced PCP or the slang terms that meant use of PCP with marijuana have increased: 103 in 1998, 169 in 1999, 175 in 2000, 198 in 2001, 237 in 2002, and 70 in first half of 2003. There were 23 cases involving misuse or abuse of formaldehyde or formalin in 1998, 20 in 1999, 26 in 2000, 11 in 2001, 26 in 2002, and 6 in the first half of 2003.

Exhibit 30 shows the number of mentions of PCP in Dallas EDs is increasing. Exhibit 31 shows these ED patients were predominately male, African-American, and older.

Adolescent and adult admissions to treatment with a primary, secondary, or tertiary problem with PCP are increasing. There were 164 admitted in 1998, 243 in 1999, 250 in 2000, 245 in 2001, 321 in 2002, and 220 in the first half of 2003. Of these clients in 2003, 81 percent were African-American, 59 percent were male, 56 percent were involved in the criminal justice system, 22 percent were employed, and 22 percent were homeless. While 45 percent reported a primary problem with PCP, another 35 percent reported a pri-

mary problem with marijuana, which demonstrates the link between these two drugs and the use of “Fry” (exhibit 32).

There were three deaths in 1999, three in 2000, and five in 2001 in Texas that involved PCP. In 2001, all were African-American males, and the average age was 23.6.

PCP use in past years was most likely to be found among Dallas arrestees (exhibit 35).

DPS labs identified 10 substances as PCP in 1998, 84 in 1999, 104 in 2000, 163 in 2001, 95 in 2002, and 76 in the first 9 months of 2003 (exhibit 33).

DEA reports that PCP sells for \$25 per cigarette and \$10 per piece of “sherm stick” in Dallas. It costs \$50–\$80 per ounce and \$3,800 per pint in the Dallas/Fort Worth area. Its availability in the Houston area is reported to be stable, while it is reported to be increasing in the Dallas/Fort Worth area.

According to the street outreach workers in the Beaumont area, use of “Fry” or “Wet” is significantly increasing. Users dip a cigarette or joint in a jar of formaldehyde and then dry it out and smoke it. In Austin, a dipped joint (“dipped J”) sells for \$20, and, depending on size, the formaldehyde is sold in baby food jars for \$40, \$60, or \$80.

Red Devil Dust is reported to be a combination of PCP, opium, and crystal methamphetamine.

Because of the tendency of some users to strip off their clothes while under its influence, PCP has a nickname of “buck naked.”

#### *Rohypnol*

Rohypnol (flunitrazepam) use in Texas first began along the Texas-Mexico border and then spread northward. As shown in exhibit 36, the 2002 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 (10.9 percent vs. 3.8 percent lifetime, and 4.4 percent vs. 1.3 percent current use).

The 2000 Texas adult survey found that 0.8 percent reported lifetime use, and 0.1 percent reported past-year use of Rohypnol.

The number of confirmed exposures to Rohypnol reported to the Texas Poison Control Centers peaked

at 101 in 1998, and dropped to 74 in 1999, 88 in 2000, 65 in 2001, 73 in 2002, and 25 in first half of 2003. The average age was 16.7 years.

The number of mentions of Rohypnol in the Dallas DAWN ED reports has dropped since 1995 (exhibit 30).

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, and 155 in the first half of 2003. Clients abusing Rohypnol were the youngest of the club drug patients and they were predominately Hispanic, which would reflect the availability and use of this drug along the border (exhibit 32). Some 75 percent were involved with the criminal justice or legal system. While 17 percent of these clients said that Rohypnol was their primary problem drug, 48 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, 22 in 2002, and 13 in the first 9 months of 2003. This decline in the percent of seizures, as shown in exhibit 33, parallels the declines seen in other indicators.

Although Roche is reported to no longer be making the 2-milligram Rohypnol tablet, which was 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: people intent on committing sexual assault are now serving blue tropical drinks and blue punches into which Rohypnol can be slipped.

#### *Dextromethorphan*

School personnel in Texas have been reporting problems with the abuse of dextromethorphan (DXM), especially the use of Robitussin-DM, Tussin, and Coricidin Cough and Cold Tablets HBP. These substances can be purchased over the counter and, if taken in large quantities, can produce hallucinogenic effects. Coricidin HBP pills are known as “Triple C’s” or “Skittles.”

Poison control centers reported the number of abuse and misuse cases involving dextromethorphan have increased: 93 in 1998, 188 in 1999, 263 in 2000, 366 in 2001, 429 in 2002, and 150 in first half of 2003. The number of dextromethorphan cases involving abuse or misuse of Coricidin HBP has increased: 2

in 1998, 4 in 1999, 145 in 2000, 236 in 2001, 266 in 2002, and 94 in the first half of 2003.

DPS labs examined 2 substances in 1998 which were dextromethorphan, 13 in 1999, 36 in 2000, 18 in 2001, 42 in 2002, and 2 through September, 2003.

#### **Inhalants**

The 2002 elementary school survey found that 9.3 percent of students in grades four to six had ever used inhalants, and 6.5 percent had used them in the school year. The 2002 secondary school survey found that 18 percent of students in grades 7–12 had ever used inhalants, and 6.8 percent had used them in the past month. Some 18.5 percent of secondary school males had ever used inhalants, as compared to 17.4 percent of females. Some 20.7 percent of Hispanics, 17.9 percent of Anglos, and 11.8 percent of African-American students had ever used inhalants.

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 37). This decrease in inhalant use as students age may be partially due 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.

Texas Poison Control Centers reported six cases of misuse or abuse of Freon or other refrigerant gases by inhaling in the first half of 2003. Products used with automobiles are also misused, with 4 cases of intentional inhaling of gasoline and 27 cases of intentional inhaling of carburetor cleaner, starter or transmission fluid, etc. There were 17 cases of intentional inhaling of paint, lacquer, or toluene; 8 cases of intentional inhaling of aerosols such as compressed air or air freshener; and 6 cases of intentional misuse or abuse of poppers.

Exhibit 38 shows the types of inhalants that were reported in the Dallas EDs.

Inhalant abusers constituted 1.1 percent of the admissions to adolescent treatment programs in the first half of 2003. The youths entering treatment tended to be male (89 percent) and Hispanic (72 percent). The overrepresentation of Hispanic youths is due to the fact that TCADA has developed and funded programs which were targeted specifically to this group. Only 0.2 percent (45 clients) of adult admissions were for a primary problem with inhalants. The

average age was 29; 60 percent were male; and 51 percent were Hispanic.

In 2000, there were 12 deaths involving misuse of inhalants and 15 in 2001. Six deaths involved Freon, and two involved nitrous oxide. The average age was 38.4; 93 percent were male; 73 percent were Anglo; and 13 percent were Hispanic or African-American, respectively.

#### AIDS, HCV, AND DRUG USE

In 2003, the percent of cases involving heterosexual exposures was greater than the percent of cases due to injection drug use (exhibit 39). The proportion of cases resulting from heterosexual contact has risen from 1 percent in 1987 to 23 percent in 2003. The proportions that were due to male-to-male sex and injecting drug users who also engaged in male-to-male sex were stable between 2002 and 2003.

In 1987, 3 percent of the AIDS cases were females over age 12; in 2003, 22 percent were female. In 1987, 12 percent of the adult and adolescent cases were African-American; in 2003, 40 percent were African-American. As exhibit 40 shows, the proportion of Anglo males has dropped, while the proportion of African-Americans and Hispanics has increased.

The proportion of adult needle users entering TCADA-funded treatment programs has decreased

from 32 percent in 1988 to 22 percent for 2003. Heroin injectors are most likely to be older, and nearly two-thirds are people of color, while injectors of stimulants and cocaine are far more likely to be Anglo (exhibit 41).

Exhibit 42 shows that 18 percent of the 8,798 tests for HCV exposure given between January 1, 2003, and October 15, 2003, were positive. Some 41 percent of the positive tests were exposed through injecting drug use. The rates were higher for males, for American Indians and African-Americans, and for persons ages 40 and older. The highest HCV positivity rates by site were sexually transmitted disease clinics (23 percent), drug treatment centers (22 percent), field outreach centers (22 percent), and corrections and probation settings (19 percent).

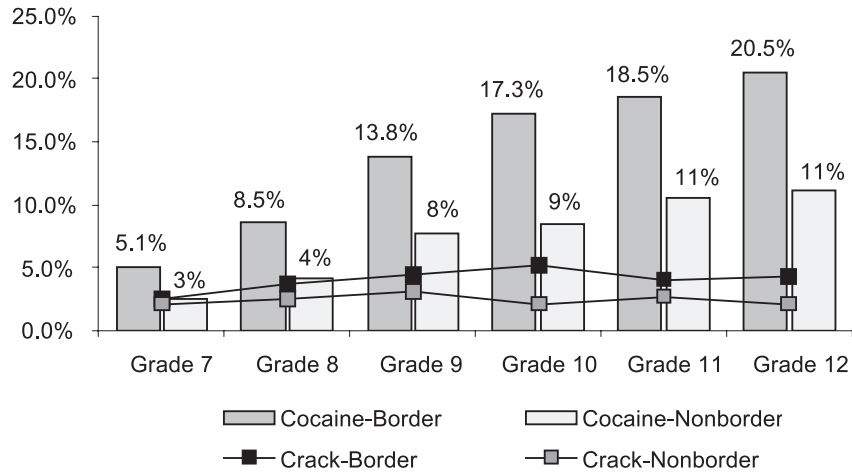
HIV outreach workers in Dallas report increases in trading sex for drugs, higher numbers of homeless persons, more youth and young adults having unprotected sex, and increases in Hispanics testing positive for HIV. In Houston, more women are being released from incarceration without any arrangements made for their care. Programs report that this includes women with dual diagnoses and other special needs. An increasing number of monolingual Spanish-speaking women need detoxification and residential treatment. Additionally, the number of syphilis cases is rising among men who have sex with men.

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**Exhibit 1. Percentage of Border and Nonborder Secondary Students Who Had Ever Used Powder Cocaine and Crack, by Grade: 2002**



SOURCE: TCADA

**Exhibit 2. Dallas DAWN ED Mentions of Cocaine Per 100,000 Population by Age and Gender: 1989–2002**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	59.1	45.4	56.9	52.9	57.7	61.5	61.6	58.3	73.6	106.0	85.6	87.3	57.1	46.1
Age 12-17	33.3	20.9	20.2	16.0	21.2	18.8	20.6	35.0	33.7	65.8	45.3	36.4	23.2	20.4
Age 18-25	140.9	102.5	116.9	106.3	109.1	100.5	105.5	92.0	155.5	192.3	139.9	130.4	67.9	64.2
Age 26-34	115.1	94.9	119.7	106.2	112.2	141.6	121.9	117.1	132.8	192.4	152.9	171.7	109.7	79.8
Age 35+	24.7	19.4	30.3	32.9	39.3	39.3	46.9	43.2	54.7	83.7	74.7	75.8	56.2	44.7
Male	76.6	58.0	69.0	69.1	72.4	75.2	79.3	77.8	97.1	142.2	112.0	114.9	73.8	57.6
Female	42.3	32.8	45.3	37.3	43.1	48.4	44.0	38.8	51.1	70.9	60.5	60.5	39.6	33.9

SOURCE: DAWN, OAS, SAMHSA

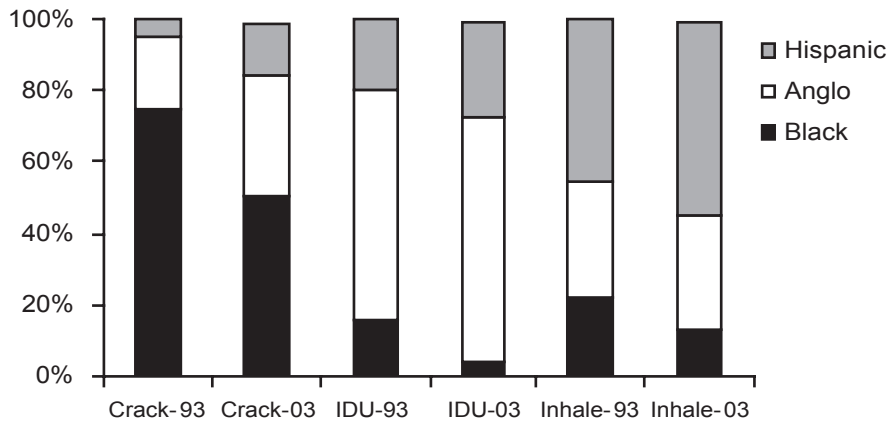
**Exhibit 3. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment with a Primary Problem with Cocaine by Route of Administration: 1/1/03-6/30/03**

	<b>Crack Cocaine Smoke</b>	<b>Powder Cocaine Inject</b>	<b>Powder Cocaine Inhale</b>	<b>Cocaine All*</b>
# Admissions	4,968	638	1,522	7,191
% of Cocaine Admits	69	9	21	100
Lag-1st Use to Tmt-Yrs.	12	13	9	11
Average Age	37	34	29	35
% Male	54	60	57	56
% African-American	51	4	13	39
% Anglo	33	68	32	36
% Hispanic	15	27	54	24
% CJ Involved	37	39	55	41
% Employed	13	15	31	17
% Homeless	18	13	7	15

\*Total includes clients with "other" routes of administration

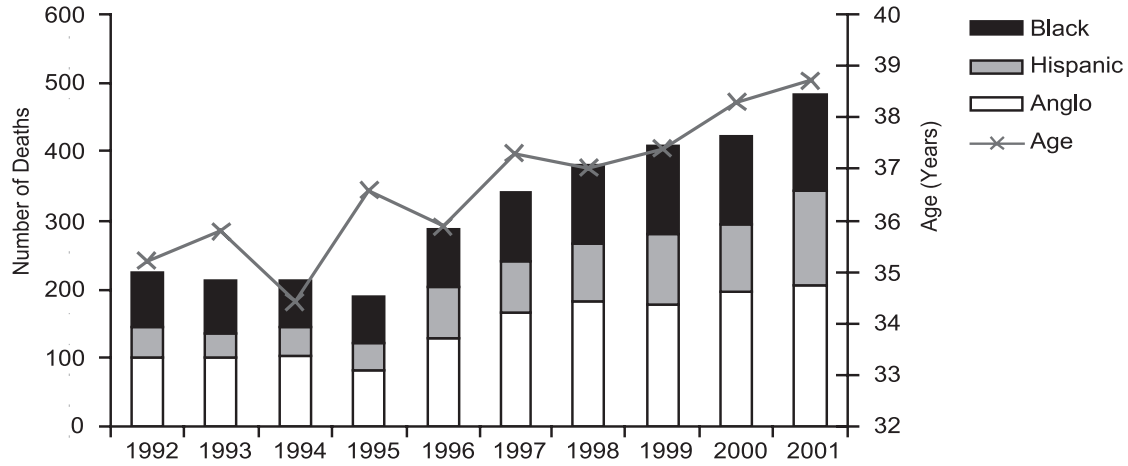
SOURCE: TCADA

**Exhibit 4. Routes of Administration of Cocaine by Race/Ethnicity of Treatment Admissions: 1993–2003**



SOURCE: TCADA

**Exhibit 5: Age & Race/Ethnicity of Persons Dying with a Mention of Cocaine: 1992–2001**



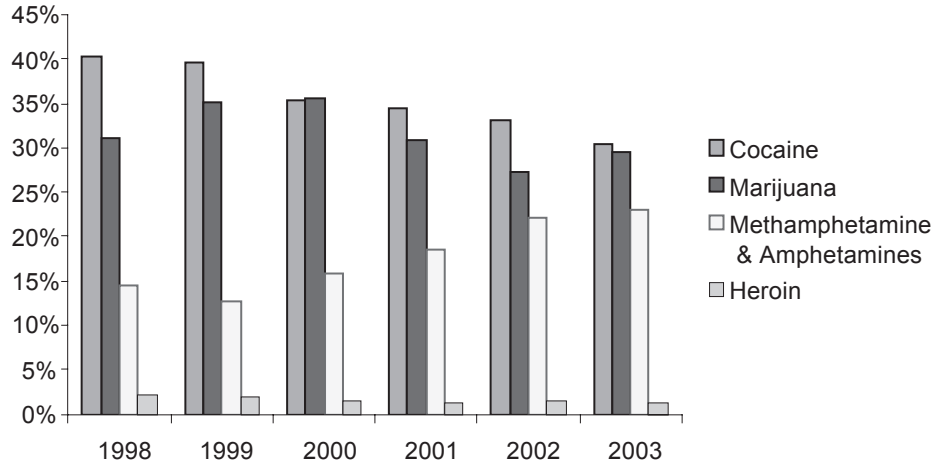
SOURCE: Bureau of Vital Statistics, T D H

**Exhibit 6. Arrestees Testing Positive for Cocaine: 1991–Partial 2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Dallas Males	43%	41%	45%	35%	31%	32%	32%	29%	34%	28%	30%	30%	34%
Houston Males	56%	41%	41%	28%	40%	39%	39%	36%	36%	32%	NR	NR	NR
Laredo Males	NR	NR	NR	NR	NR	NR	NR	37%	42%	45%	35%	36%	36%
San Antonio Males	29%	31%	31%	31%	24%	28%	26%	27%	23%	20%	30%	33%	32%
Dallas Females	46%	48%	43%	46%	44%	36%	34%	30%	40%	24%	NR	NR	NR
Houston Females	51%	44%	43%	36%	32%	34%	29%	37%	23%	32%	NR	NR	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	33%	21%	22%	27%	NR	NR
San Antonio Females	24%	25%	24%	23%	23%	23%	18%	20%	19%	NR	NR	NR	NR

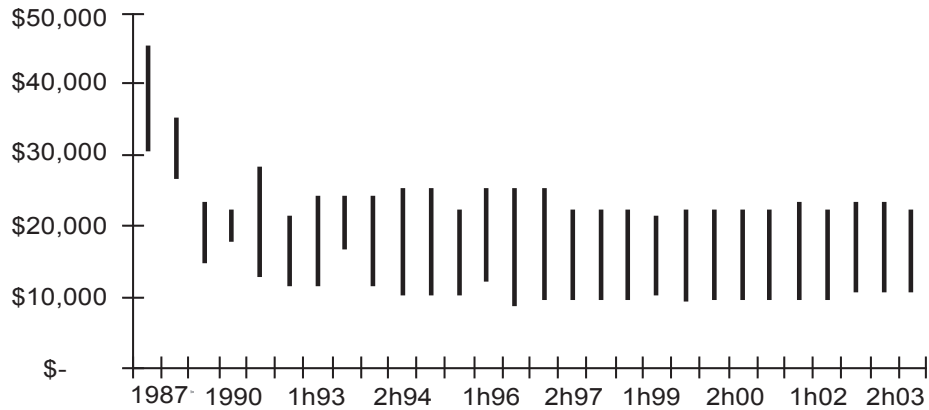
SOURCE: ADAM, NIJ

**Exhibit 7. Substances Identified by DPS Labs: 1998–2003**



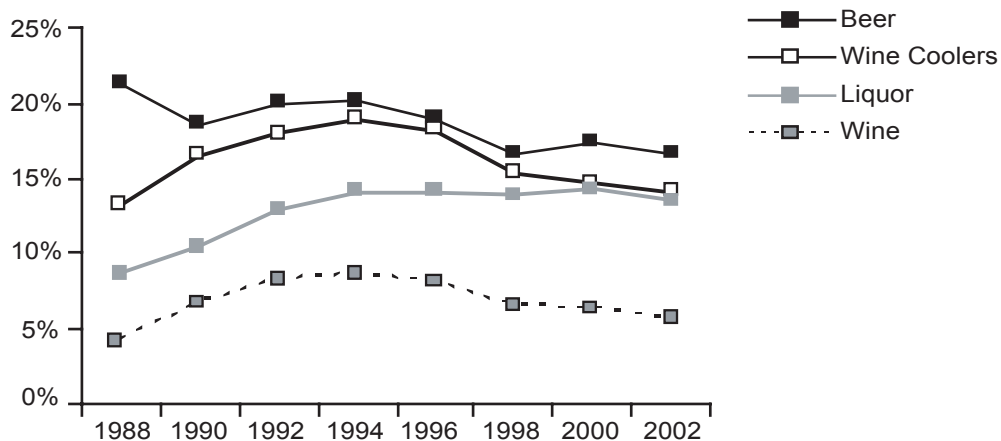
SOURCE: TDPS

**Exhibit 8. Price of a Kilogram of Cocaine in Texas as Reported by DEA : 1987–2003  
(Prices reported by half-year since 1993)**



SOURCE : DEA

**Exhibit 9. Percentage of Texas Secondary Students Who Reported They Normally Consumed Five or More Drinks at One Time, by Specific Alcoholic Beverage: 1988–2002**



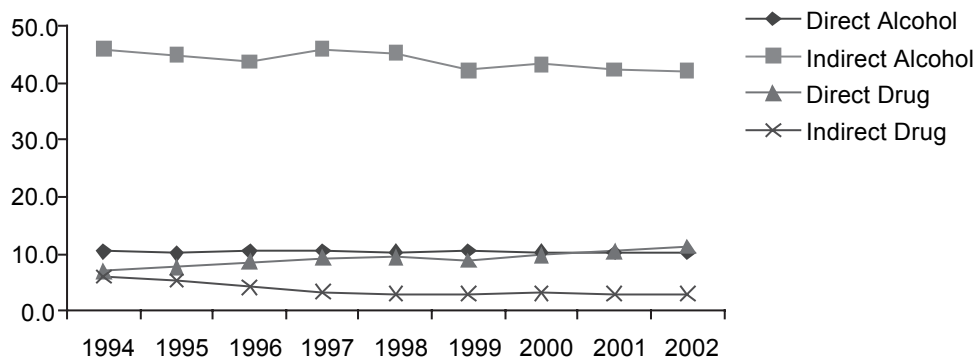
SOURCE: TCADA

**Exhibit 10. Dallas DAWN Mentions of Alcohol-in-Combination with Other Drugs Per 100,000 Population: 1992–2002**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	50.4	60.6	57.9	57.6	57.9	65.7	83.0	68.0	74.8	57.6	46.6

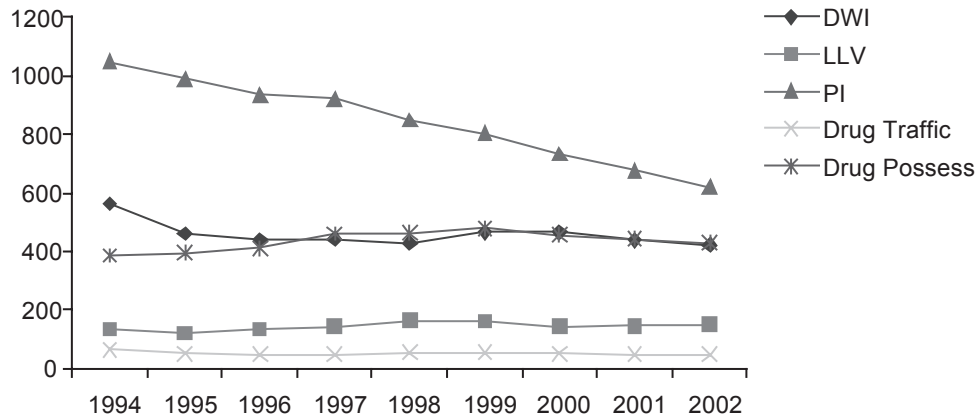
SOURCE: DAWN, OAS, SAMHSA

**Exhibit 11. Direct and Indirect Alcohol and Drug Deaths Per 100,000 Population: 1994–2002**



SOURCE: TCADA

**Exhibit 12. Substance Abuse Arrests Per 100,000 Population: 1994–2002**



SOURCE: TCADA

**Exhibit 13. Dallas DAWN ED Mentions of Heroin Per 100,000 Population by Age and Gender: 1989–2002**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	14.1	14.0	10.2	11.9	12.7	10.3	11.2	13.8	20.9	20.5	17.4	19.1	14.3	9.6
Age 12-17	-	-	-	1.0	2.0	2.7	-	9.9	-	6.8	7.1	5.8	5.2	2.2
Age 18-25	18.6	15.8	12.8	11.9	13.1	14.3	16.2	30.8	60.4	55.0	45.3	49.1	23.0	16.4
Age 26-34	27.2	26.1	16.8	22.9	15.9	13.2	15.8	17.3	24.7	24.0	19.4	22.9	20.2	15.3
Age 35+	11.6	13.0	10.4	11.8	16.0	11.9	12.2	11.8	15.0	18.0	15.6	17.2	14.4	9.2
Male	19.4	19.0	12.4	18.1	16.9	14.7	15.1	19.0	33.3	27.4	22.4	27.1	19.3	13.3
Female	8.9	9.2	8.2	5.8	8.8	5.7	7.4	8.9	9.0	13.9	12.4	11.4	9.0	5.8

SOURCE: DAWN, OAS, SAMHSA

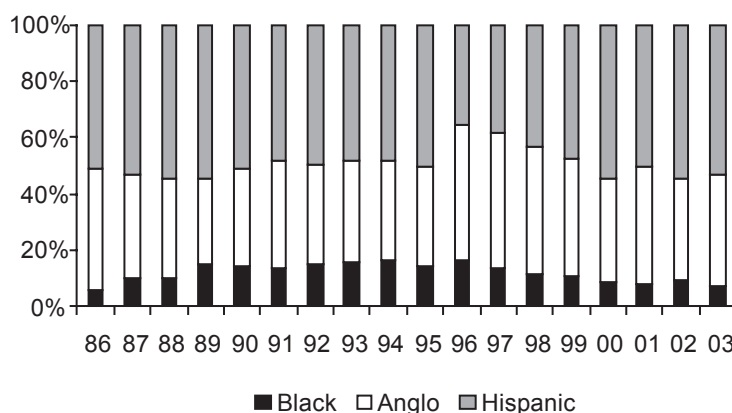
**Exhibit 14. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment with a Primary Problem with Heroin by Route of Administration : 1/1/03–6/30/03**

	Inject	Inhale	All*
# Admissions	2,326	144	2,502
% of Heroin Admits	93%	6%	100%
Lag-1st Use to Tmt-Yrs.	16	9	15
Average Age	36	31	36
% Male	71%	64%	71%
% African-American	5%	34%	7%
% Anglo	40%	20%	39%
% Hispanic	54%	43%	53%
% CJ Involved	34%	33%	34%
% Employed	9%	10%	9%
% Homeless	15%	13%	15%

\*Total includes clients with other routes of administration

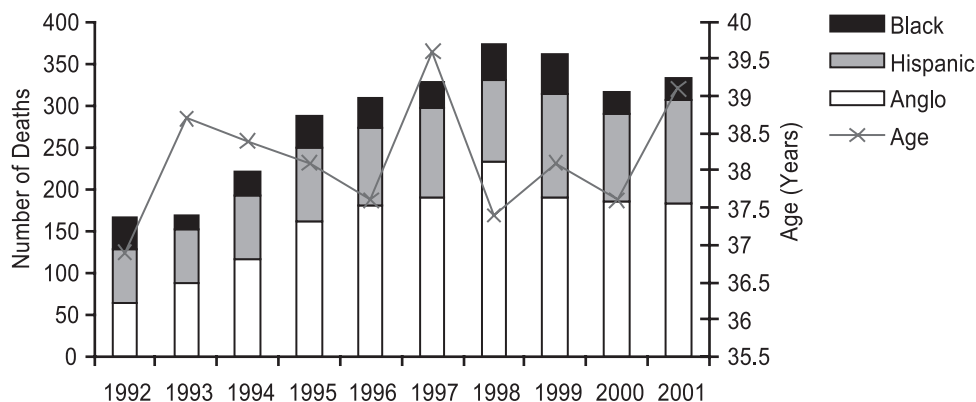
SOURCE: TCADA

**Exhibit 15. Heroin Admissions to Treatment by Race/Ethnicity: 1986–2003**



SOURCE: TCADA

**Exhibit 16: Age & Race/Ethnicity of Persons Dying with a Mention of Heroin: 1992–2001**



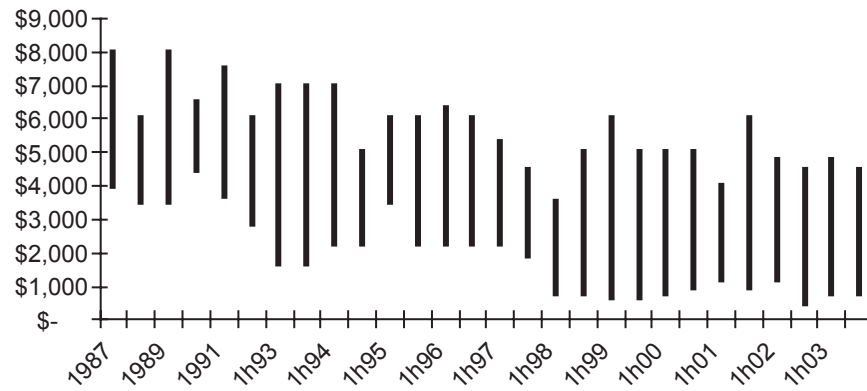
SOURCE: Bureau of Vital Statistics, TDH

**Exhibit 17. Arrestees Testing Positive for Opiates: 1991–Partial 2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Dallas Males	4%	4%	5%	3%	5%	5%	4%	2%	5%	3%	5%	7%	8%
Houston Males	3%	3%	2%	3%	5%	8%	10%	8%	6%	7%	NR	NR	NR
Laredo Males	NR	NR	NR	NR	NR	NR	NR	11%	11%	10%	11%	7%	NR
San Antonio Males	15%	14%	14%	13%	10%	10%	10%	10%	10%	10%	9%	11%	8%
Dallas Females	9%	9%	11%	8%	5%	10%	4%	5%	7%	5%	NR	NR	NR
Houston Females	4%	4%	5%	6%	3%	4%	5%	7%	7%	3%	NR	NR	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	0%	2%	7%	10%	7%	NR
San Antonio Females	20%	13%	15%	14%	13%	13%	9%	9%	10%	NR	NR	NR	NR

SOURCE : ADAM, NIJ

**Exhibit 18: Price of an Ounce of Mexican Black Tar Heroin in Texas as Reported by the DEA: 1987–2003**  
(Prices reported by half-year since 1993)



SOURCE: DEA

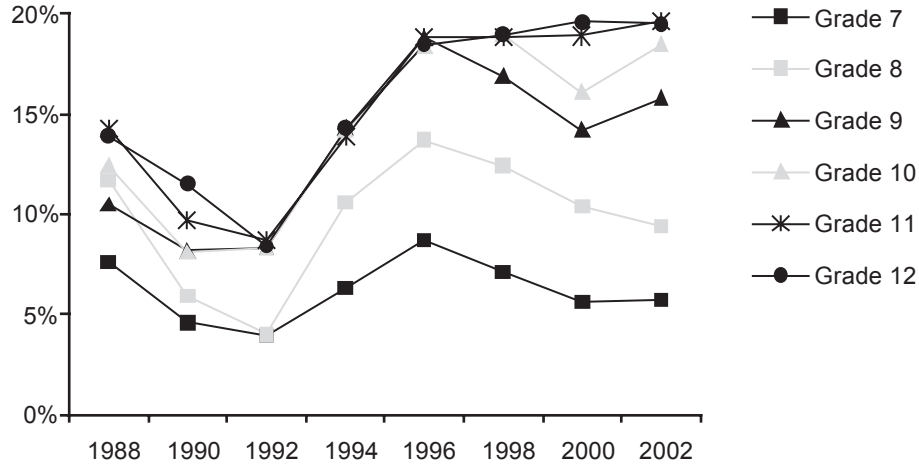
**Exhibit 19. Dallas DAWN ED Mentions of Other Opiates: 1995–2002**

	1995	1996	1997	1998	1999	2000	2001	2002
Codeine/Combinations	69	55	77	69	59	44	27	26
Hydrocodone/Combinations	189	211	310	276	245	303	375	331
Methadone	11	17	16	39	21	...	67	27
Oxycodone/Combinations	4	15	6	13	8	27	42	51

Source: DAWN, OAS, SAMHSA



**Exhibit 20. Percentage of Texas Secondary Students Who Had Used Marijuana in the Past Month, by Grade: 1988–2002**



SOURCE: TCADA

**Exhibit 21. Dallas DAWN ED Mentions of Marijuana Per 100,000 Population by Age and Gender: 1989–2002**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	23.8	15.6	11.1	14.8	15.7	20.0	23.2	23.1	37.9	61.9	47.6	49.0	33.8	26.7
Age 12-17	38.7	23.8	13.0	24.9	34.5	38.0	45.6	56.1	70.0	123.6	94.3	117.4	70.0	47.7
Age 18-25	69.5	44.5	30.9	40.6	46.1	54.2	69.4	58.1	118.4	170.4	140.6	127.8	72.1	65.4
Age 26-34	35.2	26.1	18.8	24.5	19.9	31.5	32.9	29.4	44.7	85.2	65.7	66.0	53.2	32.8
Age 35+	6.5	4.0	3.9	4.4	5.3	6.8	7.5	10.2	17.3	28.3	19.9	20.9	15.8	13.9
Male	32.7	21.6	14.8	20.0	20.1	24.7	32.7	33.3	51.7	84.8	64.0	65.2	43.5	32.8
Female	15.2	9.9	7.4	9.6	11.1	15.3	13.9	13.3	24.7	39.8	32.1	33.0	23.7	20.3

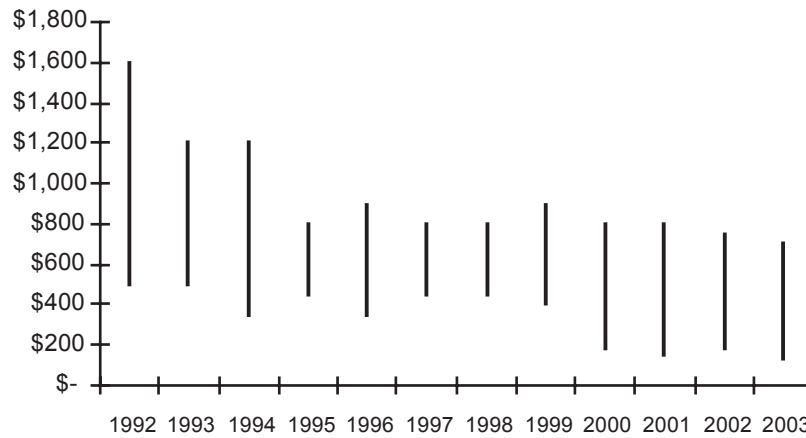
Source: DAWN, OAS, SAMHSA

**Exhibit 22. Arrestees Testing Positive for Marijuana: 1991–Partial 2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Dallas Males	19%	28%	27%	33%	39%	43%	44%	43%	39%	36%	33%	36%	41%
Houston Males	17%	24%	24%	23%	30%	28%	23%	36%	38%	36%	NR	NR	NR
Laredo Males	NR	NR	NR	NR	NR	NR	NR	39%	33%	29%	26%	26%	NR
San Antonio Males	19%	28%	32%	30%	34%	38%	34%	41%	36%	41%	41%	42%	42%
Dallas Females	11%	24%	20%	23%	23%	26%	27%	24%	27%	21%	NR	NR	NR
Houston Females	8%	12%	15%	13%	20%	24%	17%	20%	23%	27%	NR	NR	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	13%	9%	17%	14%	7%	NR
San Antonio Females	8%	16%	17%	15%	16%	18%	17%	18%	16%	NR	NR	NR	NR

SOURCE: ADAM, NIJ

**Exhibit 23. Price of a Pound of Commercial Grade Marijuana in Texas as Reported by DEA : 1992–2003**



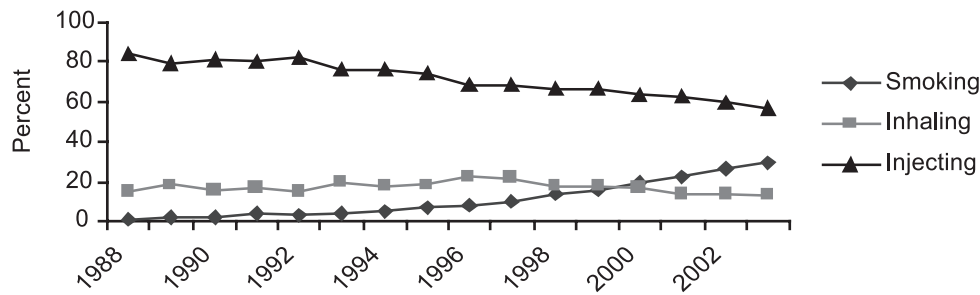
Source: DEA

**Exhibit 24. Dallas DAWN ED Mentions of Stimulants: 1994–2002**

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Methamphetamines	152	203	115	159	186	100	135	111	98
Amphetamines	92	133	120	263	336	307	351	378	299

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 25. Route of Administration of Methamphetamine by Adult Clients Admitted to TCADA Funded Programs: 1988–2003**



SOURCE: TCADA

**Exhibit 26. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment with a Primary Problem of Amphetamines or Methamphetamines by Route of Administration: 1/1/03–6/30/03**

	Smoke	Inject	Inhale	Oral	All
# Admissions	555	1,121	240	115	2,034
% of Stimulant Admits	27%	55%	12%	6%	100%
Lag-1st Use to Tmt-Yrs.	9	13	10	11	12
Average Age-Yrs.	29	31	30	31	30
% Male	48%	51%	45%	42%	49%
% African-American	1%	0%	0%	6%	1%
% Anglo	91%	94%	89%	80%	92%
% Hispanic	7%	4%	10%	11%	6%
% CJ Involved	54%	57%	54%	46%	55%
% Employed	22%	16%	22%	24%	20%
% Homeless	6%	10%	6%	10%	9%

SOURCE: TCADA

**Exhibit 27. Arrestees Testing Positive for Amphetamines: 1991–Partial 2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Dallas Males	1%	1%	4%	2%	2%	1%	4%	3%	3%	2%	2%	3%	5%
Houston Males	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	NR	NR	NR
Laredo Males	NR	NR	NR	NR	NR	NR	NR	0%	0%	0%	0%	0%	NR
San Antonio Males	1%	0%	0%	0%	1%	1%	2%	0%	0%	0%	3%	2%	4%
Dallas Females	3%	3%	6%	4%	4%	2%	4%	4%	4%	3%	NR	NR	NR
Houston Females	0%	0%	1%	0%	1%	1%	2%	0%	0%	2%	NR	NR	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	0%	0%	0%	0%	0%	NR
San Antonio Females	2%	1%	2%	0%	3%	2%	4%	2%	2%	NR	NR	NR	NR

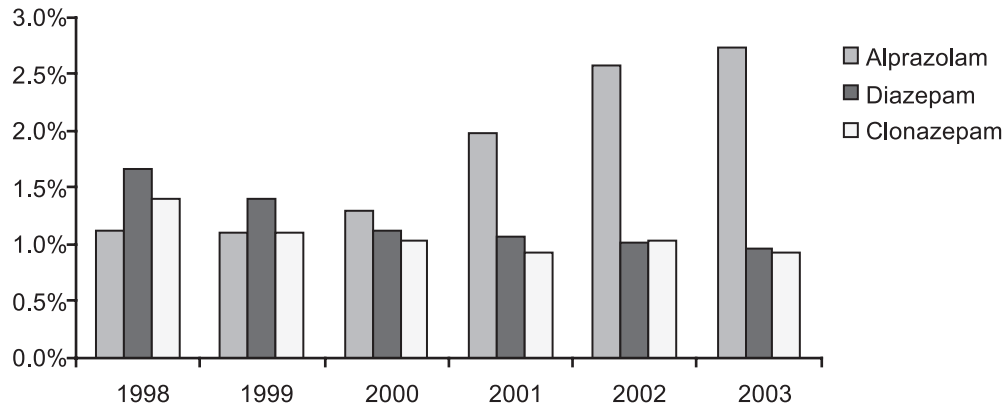
SOURCE: ADAM, NIJ

**Exhibit 28. Percent of Items Analyzed by DPS Laboratories in 2003 That Were Methamphetamine or Amphetamines**

Hidalgo (McAllen)	0.56
Webb (Laredo)	0.42
El Paso (El Paso)	5.67
Nueces (Corpus Christi)	10.12
Harris (Houston)	7.99
Travis (Austin)	22.09
McLennan (Waco)	29.78
Smith (Tyler)	31.53
Dallas (Dallas)	35.62
Midland (Odessa)	15.61
Taylor (Abilene)	42.97
Lubbock (Lubbock)	26.78
Potter (Amarillo)	55.00

SOURCE: TDPS

**Exhibit 29. Benzodiazepines Identified by DPS Labs: 1998–2003**



SOURCE: TDPS

**Exhibit 30. Dallas DAWN ED Mentions of Club Drugs: 1994–2002**

	1994	1995	1996	1997	1998	1999	2000	2001	2002
GHB	11	37	60	72	160	156	169	128	105
Ketamine	2	1	4	3	0	3	10	11	6
LSD	107	133	84	77	93	105	64	43	5
Ecstasy	21	57	20	17	15	24	71	77	53
PCP	27	65	26	36	62	95	120	96	141
Rohypnol	1	14	...	13	7	5	4	8	3

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 31. Characteristics of Dallas DAWN ED mentions of Club Drugs: 2002\***

	GHB	Ecstasy	PCP
# Admissions	105	53	141
% Male	70%	58%	70%
% Anglo	92%	53%	11%
% Hispanic	4%	21%	...
% African-American	0%	0%	77%
Age 12–17	1%	30%	11%
Age 18-25	67%	53%	57%
Age 26-34	23%	11%	21%
Age 35+	9%	6%	11%

\*Dots (...) indicate that an estimate with a relative standard error greater than 50% has been suppressed.

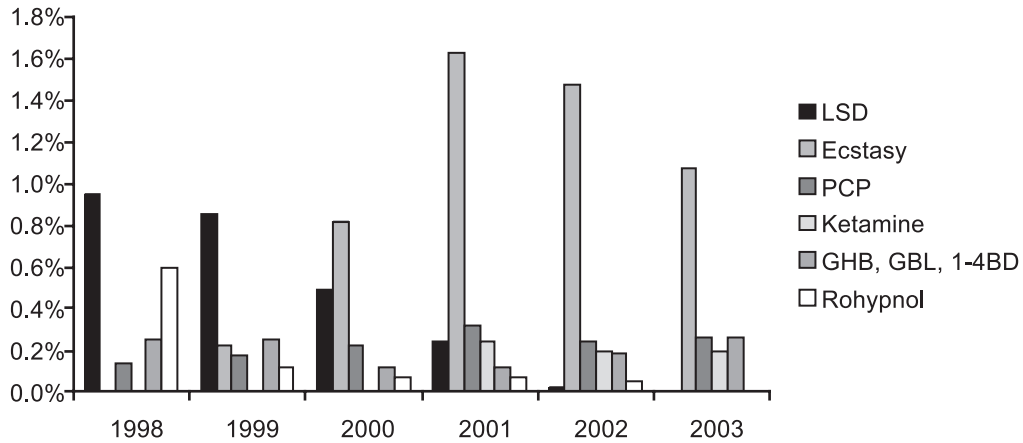
SOURCE: DAWN, OAS, SAMHSA

**Exhibit 32. Characteristics of Youth and Adult Clients Admitted to TCADA-Funded Treatment with a Primary, Secondary, or Tertiary Problem with Club Drugs:1/1/03–6/30/03**

	<b>GHB</b>	<b>Hallucinogens</b>	<b>Ecstasy</b>	<b>PCP</b>	<b>Ketamine</b>	<b>Rohypnol</b>
# Admissions	22	219	312	220	9	155
% Male	32%	78%	59%	59%	67%	64%
% Anglo	77%	58%	55%	8%	44%	3%
% Hispanic	5%	29%	24%	11%	44%	91%
% African-American	0%	11%	18%	81%	0%	3%
Average Age	29	23	22	23	26	18
% Criminal Justice Involved	23%	70%	64%	56%	100%	75%
% History Needle Use	36%	25%	21%	5%	33%	19%
Primary Drug=Club Drug	5%	18%	14%	45%	22%	17%
Other Primary Drug						
Marijuana	9%	35%	37%	35%	0%	48%
Alcohol	14%	8%	8%	6%	33%	3%
Methamphet/Amphetamines	64%	17%	18%	0%	11%	0%
Powder Cocaine	0%	7%	15%	5%	22%	20%
Crack Cocaine	0%	6%	3%	7%	0%	5%
Heroin	9%	3%	1%	1%	0%	7%

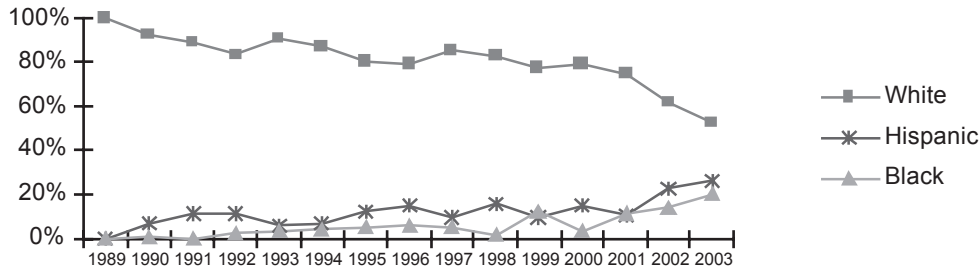
SOURCE: TCADA

**Exhibit 33. Club Drugs Identified by DPS Labs: 1998–2003**



SOURCE: TPDS

**Exhibit 34. Characteristics of Clients Admitted to TCADA-Funded Treatment with a Problem with Ecstasy: 1/1/89–6/30/03**



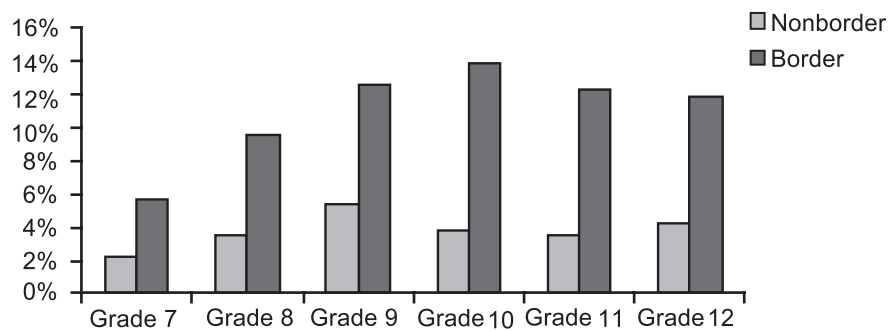
SOURCE: TCADA

**Exhibit 35. Arrestees Testing Positive for PCP: 1991–2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Dallas Males	0%	3%	3%	5%	8%	4%	3%	4%	5%	4%	2%	3%	4%
Houston Males	0%	0%	1%	3%	4%	3%	3%	6%	7%	5%	NR	NR	0.02
Laredo Males	NR	NR	NR	NR	NR	NR	NR	0%	0%	0%	0%	0%	NR
San Antonio Males	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Dallas Females	0%	0%	1%	2%	2%	1%	1%	0%	1%	2%	NR	NR	NR
Houston Females	0%	0%	0%	1%	2%	1%	1%	2%	1%	2%	NR	NR	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	0%	0%	0%	0%	3%	NR
San Antonio Females	0%	0%	0%	0%	0%	0%	0%	0%	0%	NR	NR	NR	NR

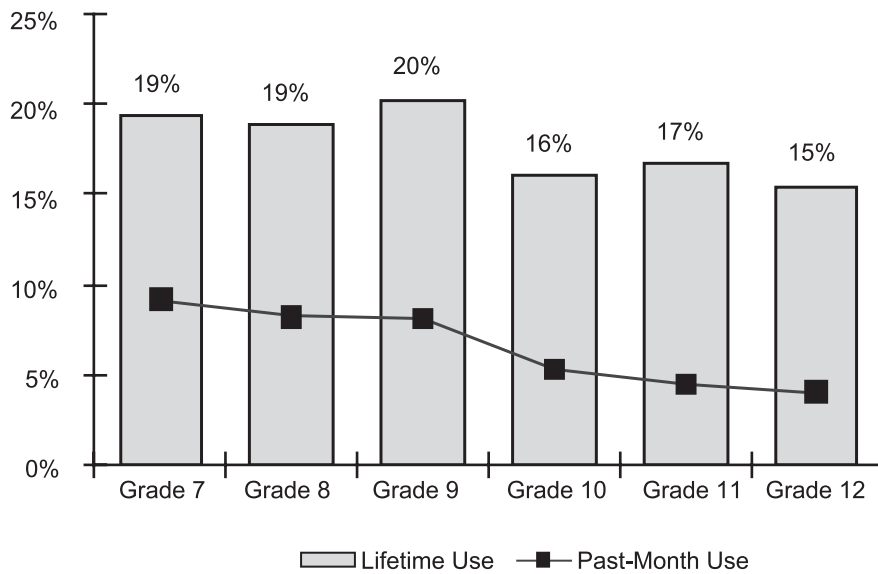
SOURCE: ADAM, NIJ

**Exhibit 36. Percentage of Border and Nonborder Secondary Students Who Had Ever Used Rohypnol, by Grade: 2002**



SOURCE: TCADA

**Exhibit 37. Percentage of Texas Secondary Students Who Had Used Inhalants Ever or in the Past Month, by Grade: 2002**



SOURCE: TCADA

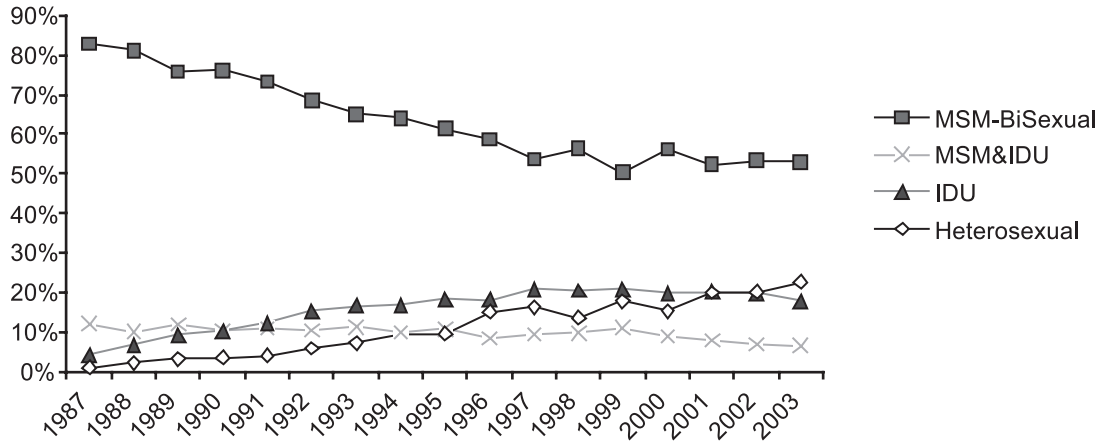
**Exhibit 38. Dallas DAWN Mentions of Various Inhalants: 1994–2002**

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Volatile Agent	65	25	44	53	31	38	27	37	16
Paint	7		2	1	3	13	6	6	3
Toluene Glue	28	4	16	19	10	5	13	9	0
Other Volatile Agents	30	21	26	33	18	20	8	22	13
Nitrites	0	0	0	0	0	0	0	0	0
Chloro-fluoro-hydrocarbons	1	8	0		3		1		0
General Anesthetics	0	1		0	1	0		0	0

SOURCE: DAWN, OAS, SAMHSA

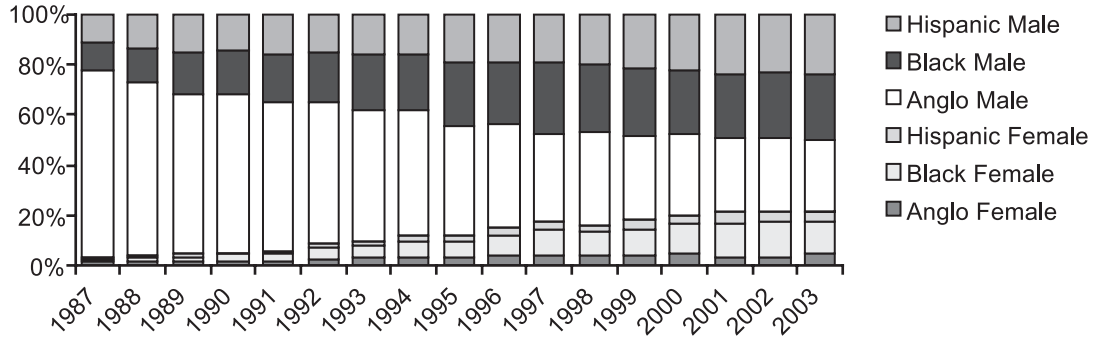


**Exhibit 39. AIDS Cases in Texas by Route of Transmission: 1987–3rd Q 2003 (Cases with Risk Not Reported Excluded)**



SOURCE: THD

**Exhibit 40. Male and Female AIDS Cases by Race/Ethnicity: 1987–3rd Q 2003**



SOURCE: THD

**Exhibit 41. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment Who Used Needles:  
1/1/03–6/30/03**

	<b>Heroin</b>	<b>Cocaine</b>	<b>Stimulants</b>
# Admissions	2,326	638	1,121
% of Needle Admits\Drug	93%	9%	55%
Lag-1st Use to Tmt-Yrs.	16	13	13
Average Age	36	34	31
% Male	71%	57%	51%
% African-American	5%	4%	0%
% Anglo	40%	68%	94%
% Hispanic	54%	27%	4%
% CJ Involved	34%	39%	57%
% Employed	9%	15%	16%
% Homeless	15%	13%	10%

SOURCE: TCADA

**Exhibit 42. HCV Counseling and Testing Report: 1/1/03–10/15/03**

Overall	17.9%
By Mode of Exposure	
Injection Drug Exposure	41.0%
Medical exposure	13.2%
Tattoo or piercing	5.6%
Occupational	2.1%
Other blood/needle	3.3%
Sexual risk	8.8%
Shared snorting equipment	2.0%
No disclosed risk	5.5%
Male	19.3%
Female	15.8%
Hispanic	12.1%
Non-Hispanic	21.1%
Anglo	17.2%
African-American	20.8%
Age Group	
13–19	25.0%
20–24	6.2%
25–29	11.9%
30–39	23.7%
40+	35.8%

SOURCE: TCH

# Patterns and Trends of Drug Abuse in Washington, DC

Eric Wish, Ph.D., Erin Artigiani, M.A., and Thomas Gray, M.A.<sup>1</sup>

## ABSTRACT

*Cocaine/crack, marijuana, and heroin continued to be the main illicit drug problems in Washington, DC, in 2002 and 2003, while the use and availability of PCP increased. Although cocaine/crack ED mentions remained stable and cocaine-related deaths declined, cocaine remained the most serious drug threat in the District. Heroin treatment admissions were steady, but HIDTA reported that the number of estimated heroin abusers in the District continued to increase, with estimates ranging between 14,000 and 18,000 heroin abusers. Marijuana is an ongoing problem in the area; more adult male arrestees in the ADAM program in 2003 tested positive for marijuana than for cocaine, PCP, or opiates. PCP abuse is a growing problem in the District, with ED mentions, PCP-related arrests, treatment admissions, and PCP-positive arrestees all increasing according to indicators. About one-third of people living with AIDS in the District have a history of injection drug use.*

## INTRODUCTION

### Area Description

The Nation's Capitol is home to approximately 571,822 people residing in 8 wards that remain largely distinguishable by race and economic status (U.S. Bureau of the Census, 2001 update). A majority of the District's wealthy White residents live in the northwest part of the city, while many of the poor African-American residents live in the northeast and southeast. There are slightly more females than males, and the majority of the District's population continues to be African-American (60 percent). Nearly one-third of the population is White (31 percent), and the remainder is primarily Hispanic and/or Asian (U.S. Bureau of the Census, 2000 Census). The population of the District is slightly older than the general U.S. population. One in five residents are younger than 18, and slightly more than 12 percent are aged 65 and older. More than one-third (39.1 percent) of adults aged 25 or older have at least a bachelor's degree.

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, while the number of Asians grew by 38.6 percent, and the number of Hispanic residents grew by 37.4 percent. The White population also grew by a much more modest 2 percent during this time period (Pach et al. 2002).

Despite a nationwide economic recession, wealth distributions in the District became more polarized during 2002. Buoyed by the draw of potential income from service employment, government spending, and an established technology industry, measures of wealth such as median household income (\$40,127 in the District in 1999) increased in the DC metropolitan region. The percentage of persons living in poverty also increased in many localities in and around Washington (Pach et al. 2002). One in five residents were living in poverty in 1999 (U.S. Census Bureau).

Mostly fueled by decreasing incidents of theft, overall index crimes declined by 3.2 percent between 2000 and 2001 in the District. While the aggregate of index crimes declined, the number of homicides increased 14.6 percent (Pach et al. 2002). During the first 6 months of 2002, there were 107 homicides in the District—24 percent more than during the first 6 months of 2001.

Alcohol abuse costs the District approximately \$700 million per year; illicit drug use costs the District \$500 million per year. Nearly 1 in 10 residents (approximately 60,000) are addicted to illegal drugs and/or alcohol. At least one-half (26,000 to 42,000) of these individuals have co-occurring substance abuse and mental health disorders. The DC Household Survey indicated that first-time drug use occurs at a younger age in the District than in the Nation (Citywide Comprehensive Substance Abuse Strategy for the District of Columbia 2003).

The major drug problems in the District continue to be cocaine/crack, marijuana, and heroin. The use and availability of phencyclidine (PCP) appears to have increased during the past 6 months. The use

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of club drugs like methylenedioxymethamphetamine (MDMA) appears to be plateauing.

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 utilize all of these options, Washington appears to be a secondary drug distribution center, with most drugs intended for distribution in DC being distributed first to larger cities such as New York and Miami (Pach et al. 2002). The street-level dealing in DC was recently described as less organized and more free flowing than the organized networks in these larger cities. Information from the NDIC suggests that Colombian drug trafficking organizations continue to play a major role in supplying opiates and cocaine to DC criminal groups of Colombian and Dominican descent.

#### 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** were derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), and annual medical examiner (ME) data for 1997–2001.
- **Emergency department (ED) drug mentions data** were derived for 1995–2002 from DAWN, OAS, SAMHSA.
- **Drug treatment data** for 2000 to 2002 were obtained from the Treatment Episode Data Set (TEDS), OAS, SAMHSA.
- **Arrest, crime, and law enforcement action data** were derived from the Metropolitan Police Department (MPD) crime statistics and press releases pertaining to law enforcement action through June 2001, <[www.mpDC.DC.gov](http://www.mpDC.DC.gov)>, and from the MPD Central Crime Analysis Unit's tables on Arrests by Sex for Adults and Juveniles through 2001.
- **National Forensic Laboratory Information System (NFLIS) data** are published quarterly by the Drug Enforcement Administration (DEA) and posted at <<http://www.deadiversion.usdoj.gov/nflis/index.html>>. NFLIS includes results of analyses conducted by State and local forensic labs of substances seized during law enforcement operations.
- **Automation of Reports and Consolidated Orders System (ARCOS) data** were derived from DEA reports posted on the Internet at <<http://www.deadiversion.usdoj.gov/arcos/index.html>>. ARCOS provides pharmaceutical drug distribution information in four formats: by business activity, ranking order by State, excess purchasers (heavily used drugs), and geographically by cumulative consumption per 100,000 population.
- **Arrestee urinalysis data** were derived from the preliminary 2003 Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), in Washington, DC. The data on adult male arrestees cover the first three quarters of 2003; data on the small sample of female arrestees are from the second and third quarters of 2003. Males are selected by random procedures, while females are selected through convenience sampling. The two samples should not be compared. Additional data were obtained from the District of Columbia Pretrial Services Agency for January through October 2003.
- **Drug prices and trafficking trends data** were obtained from the DEA, Washington Field Division, and the DEA's Domestic Monitor Program (DMP) "Quarterly Trends in the Traffic," Washington Division, Fiscal Year (FY) 2001; "Quarterly Price List," Fourth Quarter Fiscal Year 2001; drug seizure data through August 2001; and DMP data through the first quarter of 2002. NDIC agents, DEA agents, and District narcotics officers also provided information. Additional trafficking data were derived from the Washington-Baltimore High Intensity Drug Trafficking Area (HIDTA) "District of Columbia Threat Assessment" released in June 2003 and available at <<http://www.whitehousedrugpolicy.gov>>. Other trafficking data were derived from NDIC, "District of Columbia Drug Threat Assessment," May 2003, at <<http://usdoj.gov/ndic/pubs>>.
- **General information on drug use** was derived from the Office of National Drug Control Policy (ONDCP) reports "Pulse Check: Trends in Drug

Abuse Mid-Year 2001,” and “Washington, DC, Profile of Drug Indicators,” <<http://www.whitehousedrugpolicy.gov>>; the District of Columbia, Department of Health, Addiction Prevention and Recovery Administration (APRA) report “A 2000 Household Survey on Substance Abuse: Summary of Findings,” September 2001; and the Center for Substance Abuse Research, University of Maryland, Drug Early Warning System County Snapshots, available at <[www.dewsonline.org](http://www.dewsonline.org)>.

- **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,” <<http://www.planning.DC.gov/documents/census2002.shtml>>.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the District of Columbia Department of Health, Division of Epidemiology, Administration for HIV/AIDS for 1981–2002.
- **Ethnographic research provided qualitative data** on price, purity, and social aspects of drug use through interviews with law enforcement officers, treatment providers, and recovery advocates.
- **Media reports** used included those from the Washington Post, <<http://www.washingtonpost.com>>, the Baltimore Sun, <[www.sunspot.net](http://www.sunspot.net)>, and press releases from the District of Columbia Mayor’s Office News Web site <<http://DC.gov/mayor/index.shtml>>.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

Cocaine, particularly in the form of crack, remains the most serious drug threat in the District, accounting for more ED episodes, admissions to publicly funded drug treatment, and drug-related deaths than any other drug.

Cocaine-related deaths totaled 42 in 2001, with 18 being single-drug deaths (exhibit 1). The 42 cocaine-involved deaths in 2001 represented a decrease from 2000, when the total was 54, and an even greater decrease from 1998 and 1999, when these deaths totaled 63 and 64, respectively.

DAWN ED data show a rate of 71 cocaine ED mentions per 100,000 population in 2002, with no significant change from 2001 to 2002 (exhibit 2). Of the 3,033 cocaine ED mentions in 2002, 62 percent were male, and 66 percent were Black. Nearly 25 percent were White. Sixty-four percent were aged 35 or older, 22 percent were aged 26–34, and 13 percent were aged 18–25. Seventy-one percent represented multidrug episodes. Nearly 37 percent of the mentions were for patients who reported dependence as a motive for using cocaine, with the remainder citing psychic effects (18 percent) and suicide (14 percent) as motives for drug use. Reasons for contacting the ED were primarily unexpected reaction (33 percent), seeking detoxification (17 percent), and overdose (15 percent).

In 2002, cocaine accounted for 34 percent of treatment admissions reported to TEDS, with 21 percent being primary crack admissions (exhibit 3). Primary admissions for non-smoked cocaine (referred to as “powder” here) increased by nearly 5 percentage points from 2001, while admissions for crack decreased by approximately 4 percentage points. Treatment admissions in 2002 with powder cocaine and crack cocaine as the primary drugs of abuse were more likely to be female than admissions for other drugs (35.4 and 38.8 percent, respectively) (exhibit 4). More than 93 percent of both cocaine admissions groups were Black, and more than one-half were aged 36–45.

In the ADAM program in 2003, 26 percent of the more than 292 male adult arrestees tested positive for cocaine (exhibit 5). A larger proportion of the small female sample screened ( $n=36$ ) in the second and third quarters of 2003 tested cocaine-positive (38.9 percent). Reports from the DC Pre-trial Services Agency indicated that the percentage of adult arrestees testing positive for cocaine has remained about the same since 2000 (exhibit 6). In 2002, 35 percent of adult arrestees tested positive for cocaine. For the first 10 months of 2003, 35 percent of adult arrestees were cocaine-positive; 12 percent of juveniles tested positive during this time.

Cocaine is most often sold at open-air markets in the poorer parts of the city and is decreasing in price. The DEA reported that powder cocaine sold for \$17,500–\$35,000 per kilogram and \$30–\$80 per gram in the fourth quarter of FY 2002. Crack sells for slightly more: \$80–\$100 per gram. Cocaine is smuggled into the District from New York, Miami, or Philadelphia and then processed into crack by the local trafficking organizations.

## Heroin

Heroin is one of the three leading drug problems in the District, along with cocaine and marijuana. The number of heroin abusers in the District continues to increase, with estimates of 14,000 to 18,000 abusers according to HIDTA.

Of the 15 heroin-involved deaths in 2001, 4 were single-drug deaths (exhibit 1). The number of deaths in 2001 was substantially lower than in 1997–2000; deaths peaked during that time at 53 in 1998.

DAWN data show no significant changes in the rate of heroin ED mentions from 2001 to 2002 (exhibit 2); the rate was 38 per 100,000 population in 2002.

Of the 1,597 heroin ED mentions in 2002, 66 percent were male, an equal percentage were Black, and 28 percent were White. Nearly three-quarters (73 percent) were aged 35 or older. Dependence was cited as the motive for using heroin by 60 percent of patients represented in the mentions. Reasons for contacting the ED included withdrawal (21 percent), seeking detoxification (20 percent), and overdose (19 percent). One-half of the heroin mentions occurred during multidrug episodes.

In 2002, heroin accounted for 38.1 percent of treatment admissions, showing little change from 2000 and 2001 (exhibit 3). Of the 2,116 primary heroin admissions in 2002, approximately 70 percent were male and 96 percent were Black (exhibit 4). The majority were aged 36–45 (48 percent) and 46–55 (37 percent).

ADAM data show that 9.6 percent of adult male arrestees tested opiate-positive in the first three quarters of 2003 (exhibit 5). Slightly more than 19 percent of the women tested positive for opiates (quarters two and three of 2003 only). As with cocaine, reports from the DC Pretrial Services Agency indicated that the percentage of adult arrestees testing positive for opiates has remained about the same since 2000 (exhibit 6). In 2002, 10.5 percent of adult arrestees tested positive for opiates according to the agency, similar to the percentage in the first 10 months of 2003 (10.4).

The MPD describes crack as a weekend drug, but heroin as having a more steady ongoing market. A more recent report indicates that gel caps are again available on District streets. According to a second criminal justice contact, heroin dealers cater to their “dedicated clientele” in two shifts: 6:00–9:30 a.m. and 4:00–7:00 p.m.

Most heroin is from South America, although Southern Asian and Mexican heroin are still distributed by various groups. Long-term heroin injectors continue to purchase low-quality heroin, while predominately younger and more suburban users from Maryland and Virginia tend to snort the more high-quality heroin.

## Other Opiates/Narcotics

Six deaths involving narcotic analgesics were reported in 2001, down substantially from the 15–22 reported in the prior 3 years (exhibit 1). Twelve deaths involving oxycodone and 15 involving methadone were reported in the District in 2001.

The rate of ED mentions of narcotic analgesics/combinations remained stable from 2001 to 2002 (26 per 100,000 population in 2002) (exhibit 2); however, the number of mentions increased 63 percent from 2000 (672) to 2002 (1,096). Of the narcotic analgesics ED mentions, oxycodone/combinations accounted for 348 (32 percent), rising significantly from 2000 (exhibit 7). Methadone accounted for 120 (11 percent) of the 2002 mentions and has been rising steadily since 1998. Hydrocodone/combinations totaled only 44 in 2000, but rose insignificantly to 105 mentions in 2002.

Other opiates accounted for only 0.3 percent of the treatment admissions in 2002, down from 0.4 percent in 2001 (exhibit 3).

NDIC reported that the diversion of pharmaceuticals occurred at an increasing rate in 2002. Both the DEA and the MPD have units investigating the diversion of prescription narcotics, such as methadone and OxyContin (a time-release form of oxycodone). Prescription medications like these are available at street markets and are also obtained through doctor shopping by organized groups, prescription fraud, and improper prescribing practices. According to the MPD, OxyContin available at street markets in northeast DC sold for less than pills sold in the surrounding suburbs (\$0.50 per milligram vs. \$1 per milligram). Recent interviews with criminal justice and public health contacts indicate that OxyContin abuse is low and scattered, but one contact described it as emergent in the economically depressed areas surrounding the District. Several high profile cases are currently underway in Northern Virginia.

## Marijuana

Marijuana is an ongoing problem in the District, as it is in many other jurisdictions.

Marijuana was involved in one death in the District in 2001 and one in 2000 (exhibit 1).

DAWN estimates for 2002 show a rate of 55 marijuana ED mentions per 100,000 population in the District, with no significant change from 2001 (exhibit 2). Of the 2,332 marijuana ED mentions in 2002, two-thirds were male; 56 percent were Black and 31 percent were White. Thirty-seven percent of the marijuana ED mentions represented patients aged 18–25, 22 percent represented patients aged 26–34, and 26 percent represented those aged 35 and older. Fifteen percent of the marijuana ED mentions were for patients aged 12–17. Nearly three-quarters (74 percent) were multidrug episodes. Psychic effects was the most frequently cited reason for using the drug (30 percent), while unexpected reaction accounted for 46 percent of the reasons given for contacting the ED.

Primary admissions for marijuana abuse accounted for 4.8 percent of the 2002 treatment admissions, compared with 6.4 percent in 2001 and 8.0 percent in 2000 (exhibit 3). Three-quarters of the 264 primary marijuana admissions in 2002 were male, and nearly 85 percent were Black (exhibit 4). The majority of these admissions were aged 18–25 (45 percent) and 26–35 (28 percent).

In 2003, 37.3 percent of the adult male arrestees in the ADAM program tested marijuana-positive, as did nearly 39 percent of the female arrestees (female data are for quarters two and three only) (exhibit 5). The DC Pretrial Services Agency does not test adult arrestees for marijuana.

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 package delivery services by Mexican and Jamaican trafficking organizations, according to the most recent NDIC and HIDTA threat assessments. Marijuana is most often smoked in blunts or joints, which can be combined with rocks of cocaine or dipped in liquid PCP. Popular types of marijuana in the District and Maryland suburbs include “chronic,” “kind bud,” “purple haze,” “blueberry,” and “orange tulip.” All of these types are reputed to have high levels of tetrahydrocannabinol (THC).

### Phencyclidine (PCP)

Among the CEWG areas, Washington, DC, is one of the few with a growing PCP problem, including an increase in DAWN ED mentions. According to

the MPD, the number of adult arrests related to PCP increased 65 percent between 2001 and 2002 (from 142 to 234). According to the Washington/Baltimore HIDTA, PCP is rapidly becoming the drug of choice at raves and nightclubs, sometimes used in combination with marijuana and/or MDMA (ecstasy).

There were 11 PCP-related deaths in the metropolitan area in 2001—3 in the District and 8 in Prince George’s County, Maryland.

Rates of PCP ED mentions in the Washington metropolitan area increased 143 percent between 2001 and 2002, with a rate of 31 per 100,000 population in 2002 (exhibit 2). Of the 1,302 PCP mentions in 2002, 74 percent were for patients who were male, and 82 percent were for those who were Black. Nearly one-half (47 percent) were for patients aged 18–25, nearly 28 percent were for those aged 26–34, and 20 percent were for those aged 35 and older. Sixty-nine mentions (5 percent) represented patients age 12–17. Sixty-five percent of PCP ED mentions occurred during multidrug episodes. In 38 percent of the mentions, patients cited psychic effects as the reason for using the drug, while dependence represented 20 percent of the motives. The most frequently cited reasons for contacting the ED were unexpected reaction to the drug (36 percent), overdose (20 percent), chronic effects (14 percent), and “other” (13 percent).

In 2002, PCP accounted for 3.7 percent of treatment admissions, an increase from 2001 (by 1.9 percent) and 2000 (by 3.0 percent) (exhibit 3). Of the 205 primary PCP admissions in 2002, more than three-quarters were male, and nearly all were Black (exhibit 4). Most were aged 18–25 (60.5 percent) or 26–35 (28.8 percent).

The 2003 ADAM data indicate that 11 percent of adult male arrestees tested PCP-positive, as did nearly 14 percent of the females (female data are from the second and third quarter of 2003 only) (exhibit 5). Data from the DC Pretrial Services Agency show the rise in PCP use from the low single digits in the late 1990s to current levels in the mid-teens (exhibit 6). Most recent estimates show 14.2 percent of adult arrestees screened for illicit drugs in 2002 tested positive for PCP, up dramatically from 2 percent in 1998. For the first 10 months of 2003, 13.5 percent tested PCP-positive. A similar increase in PCP positives is apparent among juvenile arrestees; 11.9 percent tested PCP positive during the first 10 months of 2003. Trend data from 1987 to the present indicate that PCP use among the juvenile arrestee population has mirrored that of the adult arrestee population (exhibit 8),

with spikes in the late 1980s, mid-1990s, and again in the current decade.

Recent interviews with criminal justice and public health experts indicate an increase in the use and availability of PCP in the past 6 months. The level of use, however, is still well behind that of crack and marijuana and may be beginning to plateau. PCP is sold both on the street and in and around raves. It is often sold in the same areas as crack and heroin and other drugs. Current street slang for PCP, according to the DEA, is “water.” Although there does not seem to be agreement on who is using PCP (some said older, long-time users, others said teens and young adults looking to experiment), there was agreement on how it is sold and used. PCP is most often sold in liquid form for use in “dippers” (cigarettes dipped in liquid PCP). The dealer dips the tip of a cigarette into the liquid at the time of purchase. Street informants and users report that the preferred cigarette is Newport menthol. MPD recently reported that fry (PCP and embalming fluid) is making a comeback on college campuses. Other methods of use include boat (PCP and marijuana), woolies (PCP and crack), and dissolving an ecstasy pill in liquid PCP.

PCP is produced by limited sources in an “old time network,” and the DEA speculates that its re-emergence may be linked to the release of dealers in Los Angeles and DC from prison: “They are re-activating old connections...[and]...going back to what they used to do.” According to the U.S. Attorney’s Office, PCP is shipped from the west coast in parcels or private vehicles in containers such as gasoline or soda bottles and decanted locally. In June 2003, for instance, liquid PCP in a paint remover tin being shipped in an overnight mail pack was seized by the MPD. While most PCP is transported to the District from southern California, the seizure of precursor chemicals and PCP at a clandestine laboratory in Baltimore several months ago indicates the drug has been produced in the region. No clandestine labs have been identified to date in the District.

Liquid PCP is often stored and sold in colored glass lemon juice or vanilla extract bottles to protect the ether it is dissolved in from the sun. HIDTA and NDIC report that Blacks and lower-to-middle class Whites, often PCP abusers, are the primary transporters and wholesale distributors of PCP. Crews and local independents of various ethnic backgrounds are the primary retail-level distributors of PCP. According to the DEA Washington Division and the MPD, PCP sold for \$350–\$800 per ounce during the last quarter of FY 2002. “Dippers” sell for \$20–\$25 each. The

MPD reports prices as high as \$35 per dip. Leafy vegetable matter to use with PCP is sold in \$20, \$30, and \$40 bags. One ounce of PCP can treat 4.5 ounces of vegetable matter for a net profit of \$5,000–\$6,000.

PCP in pill form has been sold as ecstasy according to the MPD. HIDTA also reports evidence of “double stack” pills in which at least one side of the pill contains PCP. As previously stated, the MPD also reports that MDMA pills have been dissolved in liquid PCP for use in dippers. It is believed by some users that MDMA will enhance the effects of PCP.

Public health informants indicated that the pattern of PCP use ranges from weekend use to frequent/addict use. Street informants and users elaborated on the idea that PCP is an evening or weekend drug when they explained that PCP is generally used every other day to allow time to come down between smokes. Users also indicated that they tended to smoke PCP inside so that they could control their high better. PCP controls users by enhancing feelings they had before they got high, making them feel stronger than they really are, or making them feel that they can do things they would not normally do. Although the criminal justice informants indicated that they have seen evidence of violent acts committed by users, most of the users interviewed indicated that only about 3 to 5 percent of their exposures to PCP resulted in bad trips. Bad trips were described in a variety of ways, ranging from feeling numb or stuck to hallucinating or feeling paranoid to waking up not knowing where they are or what they did. Public health informants indicated that the intensity of behavioral disturbance is less than during the last peak in PCP use. When offered the opportunity to say anything they wanted about PCP, the majority of users interviewed said, “don’t try it.”

The National Poison Control Center reported an increase in reported PCP exposures in the District from 4 in 2000 to 38 in 2002. Although the numbers remain low, the volume is now at a level last seen in 1988. As of June 12, there were 11 reported exposures in 2003.

In the past year, there have been many media reports on PCP in the Washington, DC, area that trace the increase in PCP use. While PCP was most often mentioned in the crime reports of local newspapers with little fanfare, by the end of 2002 the media began to focus on PCP and its connection to violence and homicides in the metropolitan area. Articles published in *The Washington Post* and *The Washington Times* between summer 2002 and winter 2003 document



the changing perception of PCP, from a relatively low threat that may contribute to violent behavior to a “skyrocketing” threat that (in combination with other factors) caused an apparent increase in the District’s homicide rate last year. These articles also documented a large seizure of PCP in Baltimore, as well as several bizarre or violent incidents in which the perpetrator allegedly used PCP.

The DEA offered two possible explanations for the increase in the use and availability of PCP in the District and neighboring counties:

- Use cycles—Younger users see older users “get messed up” by PCP and stay away from it, but the word of mouth about PCP has faded.
- Dealing cycles—During the last upsurge in PCP use in the late 1980s and early 1990s, a number of dealers were arrested in DC. They have now served their “10 years” and are back on the street. The DEA is investigating to see if any of them have gotten back into the business.

### Other Drugs

Abuse of stimulants, such as amphetamines and methamphetamine, does not appear to be a major problem in the District. ED rates for these drugs in 2002 either could not be estimated because of standard error (amphetamines), or totaled only 1 per 100,000 population (methamphetamine). Methamphetamine ED mentions totaled 31 in 2002 (exhibit 7). No deaths involving amphetamines or methamphetamine were reported from 1997 to 2001, and no adult arrestees in the ADAM program tested methamphetamine-positive. NDIC reports that only limited amounts of methamphetamine are available in the District.

Abuse of club drugs, such as MDMA, gamma hydroxybutyrate (GHB), and ketamine, is also relatively low in the District. MDMA is the most readily available and frequently abused “club drug,” selling for \$18–\$25 per tablet in the fourth quarter of 2002, according to the DEA Washington Division. The Washington/Baltimore HIDTA estimated a slightly lower range for the cost per dosage unit: \$10–\$20. MDMA is most frequently used and distributed by teens and young adults at raves and nightclubs. Recent reports from the MPD, however, indicate that it is also sold on the street mixed into liquid PCP. MDMA is typically driven to the District from New York, Philadelphia, Orlando, and Miami by Dominican and Asian trafficking organizations. The MPD reports that area college students have

produced MDMA on campus, but that use appears to be leveling off.

The use and availability of GHB and its analogs is relatively low and generally confined to high school and college students who get it from local independent dealers and sell it at raves and dance parties. In 2002, there were an estimated 92 ED mentions of MDMA (a slight decrease from 2001) and 10 mentions of GHB (exhibit 7). There were no Rohypnol or ketamine mentions. Mentions of lysergic acid diethylamide (LSD) totaled 18 in 2002, and like mentions for GHB, they declined significantly from 2000 to 2002. No deaths involving club drugs were reported in the DAWN mortality data from 1997 to 2001.

Mentions of benzodiazepines are reported in the DAWN ED and mortality reports. One death in 2001 was attributed solely to benzodiazepines (exhibit 1); however, in 1997–2000, mentions of benzodiazepines in the mortality data ranged between 10 and 13. In 2002, the rate of benzodiazepine ED mentions in the District was 21 per 100,000 (exhibit 2), with a total of 875 mentions.

Alcohol abuse is a serious problem in the District, as in most areas of the Nation. DAWN mortality data show a decrease in mentions of deaths involving alcohol-in-combination with other drugs—from 29 in 1997 to 17 in 2001, with a peak of 44 in 1998 (exhibit 1). DAWN data for 2002 show 3,714 ED mentions of alcohol-in-combination with other drugs and a rate of 87 mentions per 100,000 population. In 2002, primary alcohol admissions accounted for nearly 19 percent of all treatment admissions, representing slight declines from 2000 and 2001 (exhibit 3). In the 2003 ADAM data, 10 percent of the male arrestees tested positive for alcohol, as did nearly 3 percent of the females.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The diagnosis of AIDS cases increased rapidly from 1982 to 1993, when they peaked at 1,341 cases. The number of cases decreased 31 percent from 1998 to 2001, but increased again in 2002. There were 943 diagnosed cases in 2002, the last year for which data are available (exhibit 9). The proportion of male cases decreased steadily during this time, but the proportion of female cases increased, from 17.2 percent of all cases in 1993 to 30 percent of all cases in 2002. Forty-two percent of the cumulative diagnoses occurred among 30–39-year-olds. Three-quarters (75 percent) of cumulative AIDS cases are African-American. Thirty percent of cumulative AIDS cases have a history of injection drug use (4 percent of men who have

sex with men and 26 percent of heterosexuals), compared with 21 percent of cases diagnosed in 2002.

REFERENCE

Pach, A.; Brown, J.; Hendrickson, J.; Odom, T.; and Nemes, S. "Patterns and Trends of Drug Abuse in

Washington, DC." *Epidemiologic Trends in Drug Abuse, Volume II: Proceedings of the Community Epidemiology Work Group* June 2002. Washington, DC: National Institute on Drug Abuse, 2002.

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**Exhibit 1. Drug-Related Deaths in Washington, DC: 1997–2001**

Drug	1997	1998	1999	2000	2001	Single-Drug Deaths, 2001
Alcohol-in-Combination	29	44	37	26	17	–
Cocaine	33	63	64	54	42	18
Heroin/Morphine	41	53	41	36	15	4
Marijuana	–	–	–	1	1	–
Amphetamines	–	–	–	1	–	–
Methamphetamine	–	1	–	1	–	–
Club Drugs <sup>1</sup>	–	–	–	–	–	–
Hallucinogens <sup>2</sup>	1	–	2	1	3	1
Inhalants	–	–	–	–	–	–
Narcotic Analgesics <sup>3</sup>	6	22	15	20	6	–
Other Analgesics	2	3	3	2	1	–
Benzodiazepines	13	13	11	10	1	1
Antidepressants	4	14	11	4	1	–
All Other <sup>3</sup>	7	30	18	10	1	–
<b>Total Drug Deaths</b>	<b>79</b>	<b>145</b>	<b>121</b>	<b>100</b>	<b>53</b>	<b>24</b>
<b>Total Drug Mentions</b>	<b>136</b>	<b>243</b>	<b>202</b>	<b>166</b>	<b>88</b>	<b>–</b>
<b>Total Deaths Certified</b>	<b>1,414</b>	<b>1,607</b>	<b>1,763</b>	<b>1,751</b>	<b>1,582</b>	<b>–</b>

<sup>1</sup>Includes ecstasy (MDMA), ketamine, GHB-GBL, and Rohypnol.

<sup>2</sup>Includes PCP, LSD, and miscellaneous hallucinogens.

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

SOURCES: DAWN, OAS, SAMHSA

**Exhibit 2. Rates of ED Mentions Per 100,000 Population for Selected Drugs in Washington, DC: 1995–2002**

Drug	1995	1996	1997	1998	1999	2000	2001	2002	Percent Change <sup>1</sup>	
									2000, 2002	2001, 2002
Cocaine	96	104	85	97	81	72	69	71		
Heroin	35	41	45	55	46	49	45	38		
Narcotic Analgesics/Combinations	20	20	21	19	18	17	26	26		
Marijuana	55	58	63	62	65	64	51	55		
PCP	23	9	6	4	5	8	13	31	279.4	143.0
Benzodiazepines	33	32	29	28	23	21	22	21	50.7	

<sup>1</sup>These columns denote statistically significant (p<0.05) increases between estimates for the time periods noted. There were no significant changes from 1995 to 2002 for the drugs in this exhibit.

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 3. Treatment Admissions in Washington, DC, by Percent: 2000–2002**

<b>Drug</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>Percentage Point Change 2001–2002</b>
Total Admissions (N)	(6,025)	(5,755)	(5,548)	
Powder Cocaine	7.4	8.2	12.9	4.7
Crack Cocaine	27.0	25.2	21.1	-4.1
Heroin	35.2	37.9	38.1	0.2
Other Opiates	0.2	0.4	0.3	-0.1
Marijuana	8.0	6.4	4.8	-1.6
PCP	0.7	1.8	3.7	1.9
Alcohol	21.1	19.3	18.7	-0.6
Other Drugs	0.4	0.8	0.4	-0.4

SOURCE: TEDS, SAMHSA

**Exhibit 4. Demographic Characteristics of Treatment Admissions in Washington, DC, by Selected Drugs and Percent: 2002<sup>1</sup>**

<b>Drug</b>	<b>Powder Cocaine</b>	<b>Crack Cocaine</b>	<b>Heroin</b>	<b>Marijuana</b>	<b>PCP</b>
(N=)	(717)	(1,172)	(2,116)	(264)	(205)
Gender					
Male	64.6	61.2	70.4	75.4	75.6
Female	35.4	38.8	29.6	24.6	24.4
Race/Ethnicity					
Black	93.7	96.5	96.5	84.8	99.5
White	2.1	1.5	1.9	3.4	0.0
Other <sup>2</sup>	4.2	1.0	1.6	11.8	0.5
Age Group					
17 and younger	0.4	0.3	0.0	9.8	0.5
18–25	3.7	3.0	1.8	44.7	60.5
26–35	22.4	25.0	9.1	27.6	28.8
36–45	51.8	54.3	47.6	14.8	8.3
46–55	18.8	15.1	37.1	1.9	1.0
56 and older	2.6	2.3	4.1	1.2	1.0

<sup>1</sup>Columns less than 100 percent exclude “unknown.”

<sup>2</sup>Primarily Hispanic or Latino.

SOURCE: TEDS, SAMHSA

**Exhibit 5 Percentages of Adult Arrestees in Washington, DC, Testing Positive for Four Drugs: 2002–2003**

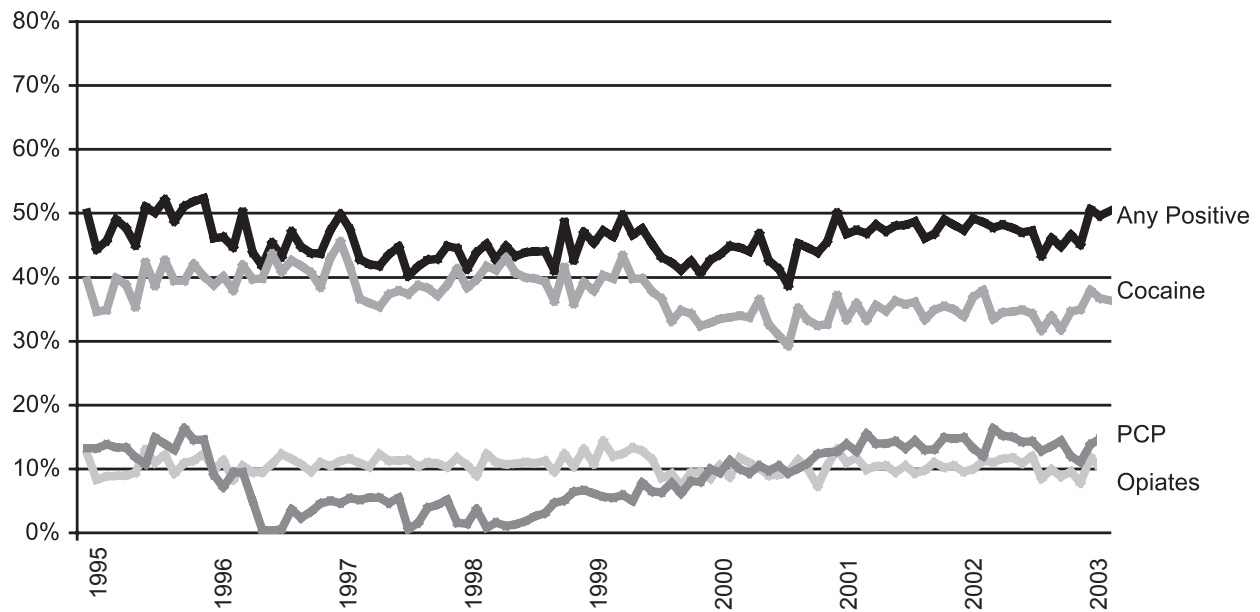
Drug	ADAM Males 2003 <sup>1</sup>	ADAM Females 2003 <sup>1</sup>	D.C. Pretrial 2002	D.C. Pretrial 2003 <sup>2</sup>
(N=)	(292)	(36)	(17,952)	(15,013)
Marijuana	37.3	33.3	Not Tested	Not Tested
Cocaine	26.4	38.9	35.2	34.9
PCP	11.0	13.9	14.2	13.5
Opiates	9.6	19.4	10.5	9.9

<sup>1</sup>Male data are for the first three quarters of 2003; female data are for quarters two and three.

<sup>2</sup>January–October 2003.

SOURCE: ADAM, NIJ; D.C. Pre-trial Services

**Exhibit 6. Percentages of Washington, DC, Adult Arrestees Testing Positive for Any Drug, Cocaine, PCP, and Opiates: Monthly 1995–2003<sup>1</sup>**



<sup>1</sup>Data for 2003 are through October.

SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency

**Exhibit 7. Numbers of ED Mentions for Selected Drugs in Washington, DC: 2000–2002**

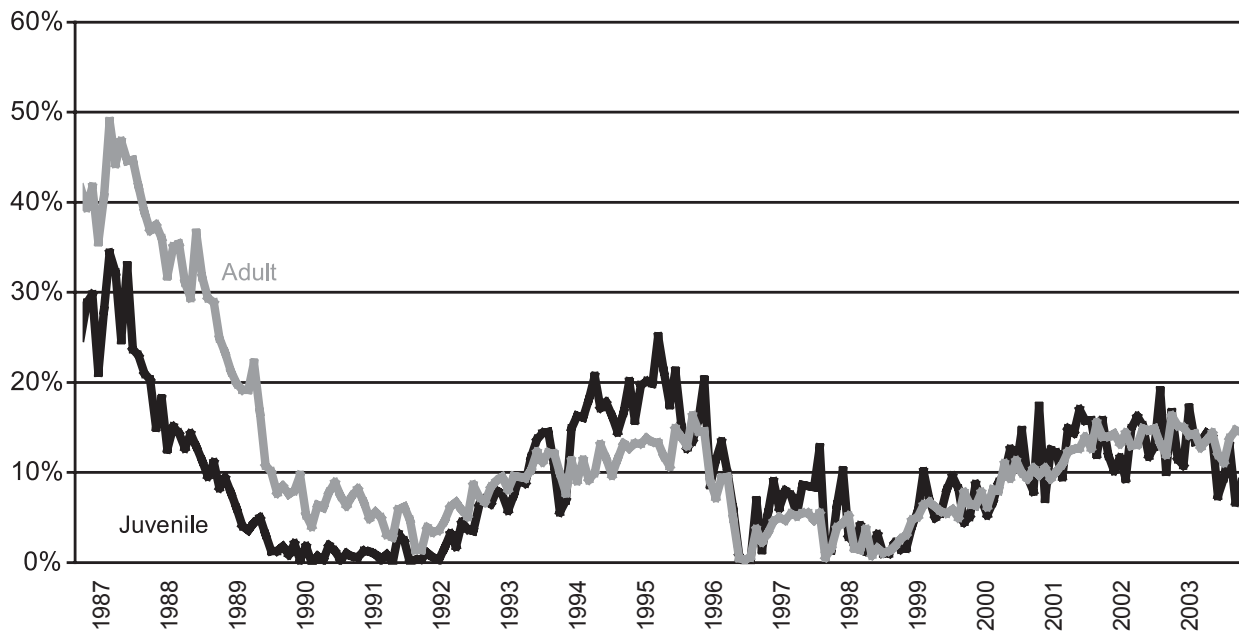
Drug	Number			Percent Change <sup>1</sup>	
	2000	2001	2002	2000, 2002	2001, 2002
Oxycodone/Combinations	136	350	348	155.9	
Hydrocodone/Combinations	44	... <sup>2</sup>	105		
Methadone	68	118	120		
MDMA	78	110	92		
GHB	24	15	10	-58.3	
LSD	45	25	18	-60.0	
Methamphetamine	62	24	31		

<sup>1</sup>These columns denote statistically significant changes between estimates for the time periods noted.

<sup>2</sup>Dots (...) indicate that an estimate has been suppressed due to incomplete data.

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 8. Percentage of Washington, DC, Adult and Juvenile Arrestees Testing Positive for PCP: Monthly 1987–2003<sup>1</sup>**



<sup>1</sup>Data for 2003 are through October.

SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency

**Exhibit 9. District of Columbia Diagnosed AIDS Cases by Gender, Race/Ethnicity, Age, and Exposure: 1998–2002**

Characteristic	1998		1999		2000		2001		2002		Cumulative 1981-2002	
	#	%	#	%	#	%	#	%	#	%	#	%
Gender												
Male	719	72	526	74	471	69	468	68	658	70	12,098	80
Female	278	28	188	26	210	31	218	32	285	30	3,034	20
Total Cases	997		715		681		686		943		15,132	
Race/Ethnicity												
White	112	11	88	12	68	10	59	9	46	5	2,962	20
Black	837	84	591	83	562	83	567	83	584	62	11,286	75
Hispanic	42	4	27	4	32	5	28	4	22	2	485	3
Asian/Pacific Islander	<5	<1	5	<1	<5	<1	<5	<1	<5	<1	48	<1
Undisclosed/Unknown	<5	<1	<5	<1	15	2	29	4	289	31	351	2
Age Group												
12 and younger	8	<1	<5	<1	0	0	<5	<1	<5	<1	179	1
13–19	8	<1	<5	<1	7	1	<5	<1	8	<1	71	<1
20–29	120	12	89	12	89	13	75	11	85	9	2,248	15
30–39	395	40	265	37	253	37	235	34	319	34	6,327	42
40–49	330	33	249	35	231	34	251	37	347	37	4,575	30
50–59	107	11	83	12	78	11	94	14	149	16	1,363	9
60 and older	29	3	20	3	23	3	26	4	32	3	369	2
Mode of Exposure												
MSM <sup>1</sup>	353	35	268	38	200	29	195	28	271	28	7,204	48
IDU/MSM <sup>2</sup>	22	2	14	2	14	2	20	3	16	2	673	4
IDU <sup>3</sup>	312	31	165	23	163	24	146	21	179	19	3,939	26
Heterosexual contact	191	19	169	24	176	26	149	22	253	27	2,095	14
Mother with HIV	8	<1	<5	<1	0	0	<5	<1	<5	<1	172	<1
Hemophilia	0	0	0	0	0	0	0	0	<5	<1	22	<1
Transfusion/transplant	<5	<1	<5	<1	<5	<1	<5	<1	<5	<1	104	<1
Unknown/other	108	11	90	13	126	19	172	25	219	23	923	6
Deaths During Period	156		130		89		48		41		6,932	

<sup>1</sup>MSM=Men who have sex with men.

<sup>2</sup>IDU/MSM=Injection drug users who are also MSMs.

<sup>3</sup>IDU=Injection drug user.

SOURCE: District of Columbia Department of Health, Division of Epidemiology, Administration for HIV/AIDS





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Current/Emerging Trend: PCP Abuse

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## Background

One role of the CEWG is to identify emerging drug problems and trends. Each CEWG meeting is structured to review findings, discuss their implications, and consider followup plans. At the June 2003 meeting, attention was focused on PCP because PCP indicators had increased in four CEWG areas. There was concern that PCP abuse might be spreading on the east coast.

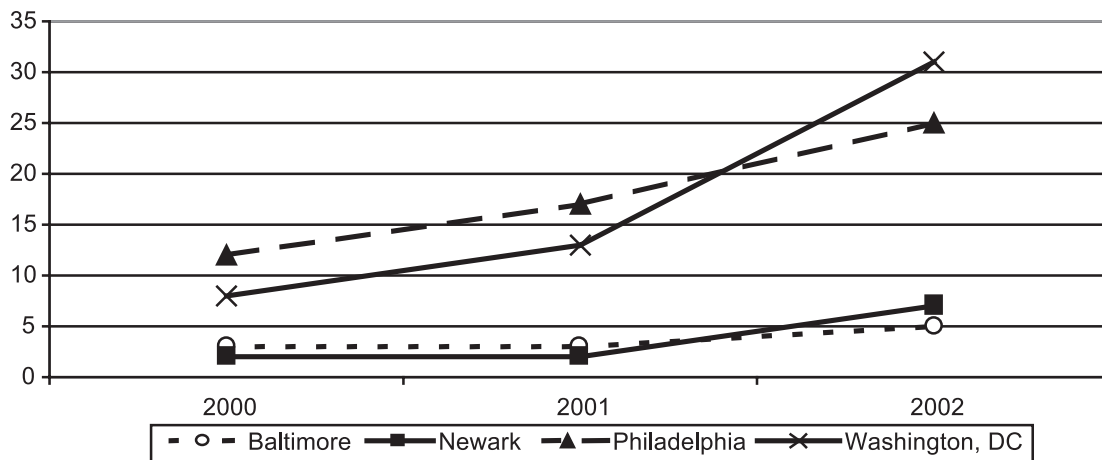
At the June meeting, Dr. Eric Wish reported that PCP ED mentions had been trending up in Washington, DC, since 2000. Also, 11 PCP-related deaths were identified by MEs in the District and nearby Prince George’s County, Maryland. In 2002, 14 percent of adolescent and adult arrestees screened by the District of Columbia Pretrial Services Agency tested positive for PCP. PCP-related arrests increased 65 percent from 2001 to 2002, when they totaled 234.

At the June meeting, Dr. Jane Maxwell reported increasing numbers of adolescent and adult treatment admissions in Texas who reported using PCP as a

primary, secondary, or tertiary drug. Samuel Cutler expressed concern about reports of increased PCP availability in Philadelphia.

Prior to the June 2003 meeting, there were media stories in several CEWG areas about PCP abuse and associated problems, prompting NIDA to further assess the problem. A May 2003 DEA PCP Brief pointed to the emergence of large PCP labs in new locations (Indiana, Maryland) and new distribution patterns, particularly in the east. ADAM and DAWN ED data provided support for PCP abuse problems in eastern CEWG areas. Notable levels of PCP-positive tests were found for male arrestees in the ADAM sites in Philadelphia (11.4 percent) and Washington, DC (10.3 percent) in 2002. Rates of DAWN PCP ED mentions per 100,000 population increased significantly from 2001 to 2002 in four eastern CEWG areas (exhibit A), with Washington, DC (31) and Philadelphia (25) having the highest rates in the 21 DAWN sites in 2002.

**Exhibit A. Rates of PCP ED Mentions in 4 Eastern CEWG Areas: 2000–2002**



SOURCE: DAWN, OAS, SAMHSA

From 2001 to 2002, rates of PCP ED mentions also increased across the coterminous United States and in two other CEWG areas—Dallas and St. Louis. Although stable, PCP ED rates remained high in Los Angeles, at 11 per 100,000 population in 2002, the third highest rate across DAWN sites.

Based on such reports and concerns, it was concluded that PCP indicators should be closely monitored in all CEWG areas and that steps should be taken to learn more about PCP abuse in particular areas where indicators were high and rising. Drs. Beth Finnerty, Los Angeles, and Eric Wish, Washington, DC, planned to conduct short-term qualitative studies in their areas

and to report the findings as part of this PCP Panel. It was proposed that the studies be designed not only to learn about PCP abuse but also to explore methods that could be used to go beyond quantitative data to better understand user populations, their cultures, and the environments in which drugs are used. Such studies could potentially be conducted to learn more about other drug problems that emerge from quantitative data reported at CEWG meetings. Following Institutional Review Board (IRB) approval from their respective organizations, the two CEWG researchers conducted small-scale studies designed to learn more about PCP abuse from the perspective of current and prior PCP users, as well as people in the community who were knowledgeable about PCP abuse. In addition, attention would be devoted to assessing the qualitative methods to determine whether they might be used in future studies of this type.

Two other individuals agreed to participate in the PCP Panel: Dr. Jean Schensul, The Institute for Community Research, Hartford, Connecticut, and Dr. James Tolliver, Drug Enforcement Administration. Dr. Schensul, a NIDA grantee, has been involved

in two research projects in Hartford, Connecticut, in which some data were gathered on PCP abuse. Dr. Tolliver, a pharmacologist with the DEA, has studied and assessed PCP patterns across the Nation.

In summary, the objectives of this PCP Panel are as follows:

- To present findings from exploratory studies and ongoing grantee research
- To review and discuss the findings
- To assess methodologies that may be used by CEWG members to quickly obtain qualitative information about drug abuse problems from local sources
- To obtain and review the most recent information about the production, trafficking, and distribution of PCP from the DEA

The data and information provided by the four panelists are summarized below.

## Phencyclidine (PCP) Production, Distribution, and Trends

*James Tolliver, M.S., Ph.D.*

PCP is relatively easy, but dangerous to make. The liquid form of PCP is commonly produced in clandestine laboratories by the “bucket method,” in which chemicals are mixed and left to stand in either a bucket or a trash bin. The chemicals are toxic and highly flammable. Precursor chemicals for making PCP have been found to come from commercial and bulk chemical companies situated in California, Connecticut, Nevada, Oklahoma, and Texas. California is by far the major source of PCP trafficked in the United States. In the past several years, a PCP laboratory was encountered in each of the following States: Indiana, Maryland, and Tennessee.

The vast majority of PCP seizures are made by State and local law enforcement authorities. The National Forensic Laboratory Information System is a computerized database of analysis results of drug exhibits from 187 State and local forensic laboratories located in 40 States. A query of this system for 2002 revealed that of 2,765 total PCP cases, 669 were from California, compared with 476 from Pennsylvania, 467 from New York, 398 from Illinois, 203 from Texas, 148 from Virginia, 140 from Washington, DC, and 114

from Maryland. The NFLIS system does not contain any information on seizures of PCP in the Washington, DC, area. However, for purposes of comparison, there were in 2002 a total of 140 law enforcement cases involving the seizure of exhibits that were sent to the DEA laboratory system and found to contain PCP.

The Los Angeles area is the primary source of PCP, and New York City is one of the largest mid-level distribution hubs. Belizean nationals have been operating as PCP distribution middlemen between African-American distribution organizations in Los Angeles and New York. Distribution networks are also located in Houston and Kansas City. PCP is distributed from New York City to other areas, including Newark, Philadelphia, Connecticut and other New England areas, Chicago, St. Louis, Dallas, and New Orleans. PCP is also distributed to Chicago from California. Other distribution areas directly from California include Seattle, Nevada, and California.

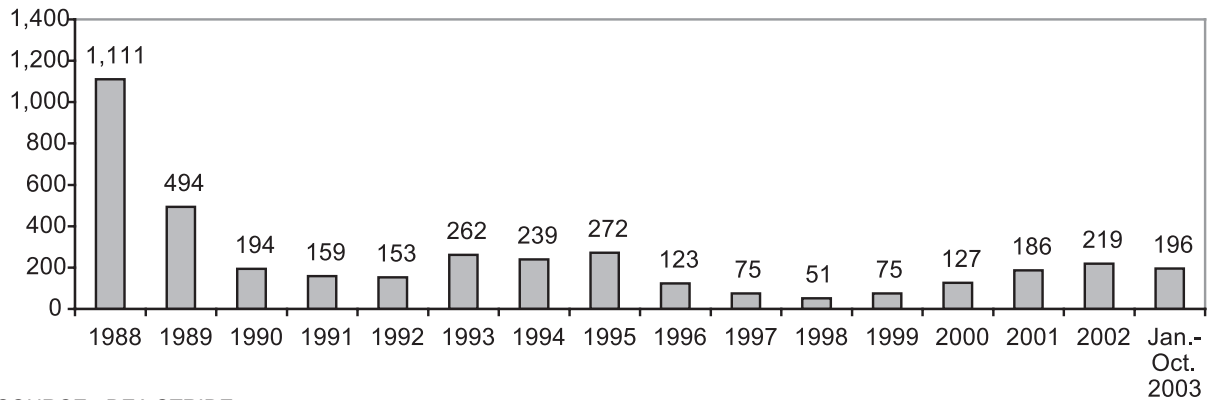
Mexican drug trafficking organizations operating in the United States typically produce PCP in the powder or crystal forms and, reportedly, distribute wholesale

quantities to Hispanic street gangs in San Jose, New York City, and Oklahoma.

The System to Retrieve Information on Drug Evidence (STRIDE), a DEA database, includes drug exhibits analyzed by eight regional laboratories. The number of PCP cases reported by STRIDE exceeded 1,100 in 1988, but decreased to less than 500 in 1989

and to less than 200 in 1990 (exhibit B). PCP cases increased to more than 200 cases in 1993, 1994, and 1995 before decreasing once again each year from 1996 through 1998. In 1999, PCP cases began to increase again. They exceeded 200 in 2002 and, based on data covering 10 months, are likely to increase even more in 2003.

**Exhibit B. Number of Phencyclidine STRIDE Cases: 1988–October 2003**

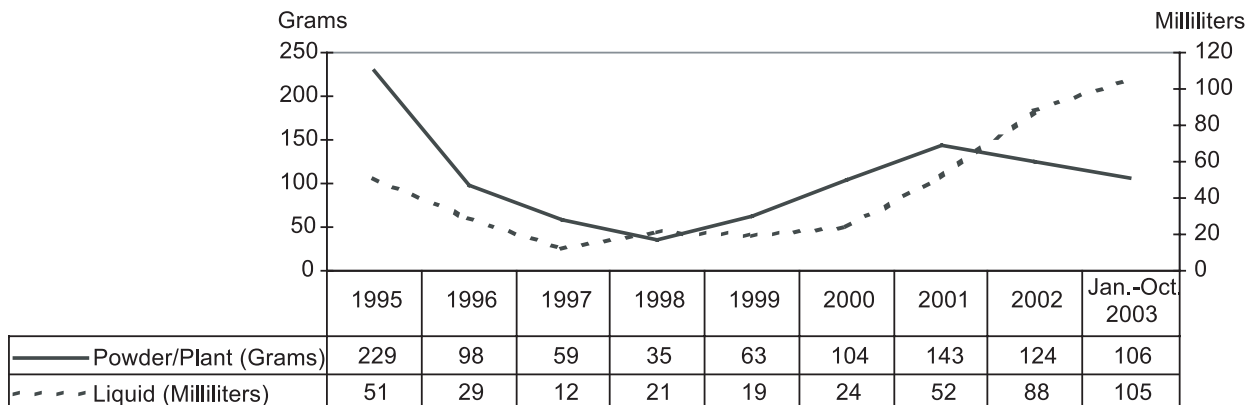


SOURCE: DEA STRIDE

Historically, PCP has been encountered in many forms, including tablet, powder, crystal, paste, and liquid. Currently, the vast majority of PCP seized is either in liquid form or as plant material impregnated with PCP. As shown in exhibit C, more powder/plant (plant material impregnated with PCP) than liq-

uid PCP cases were reported each year from 1995 through 2002. However, in the first three quarters of 2003, there were almost as many liquid PCP cases (105) as powder/plant material cases (106) reported by STRIDE.

**Exhibit C. Number of Powder/Plant Versus Liquid PCP STRIDE Cases: 1995–October 2003**

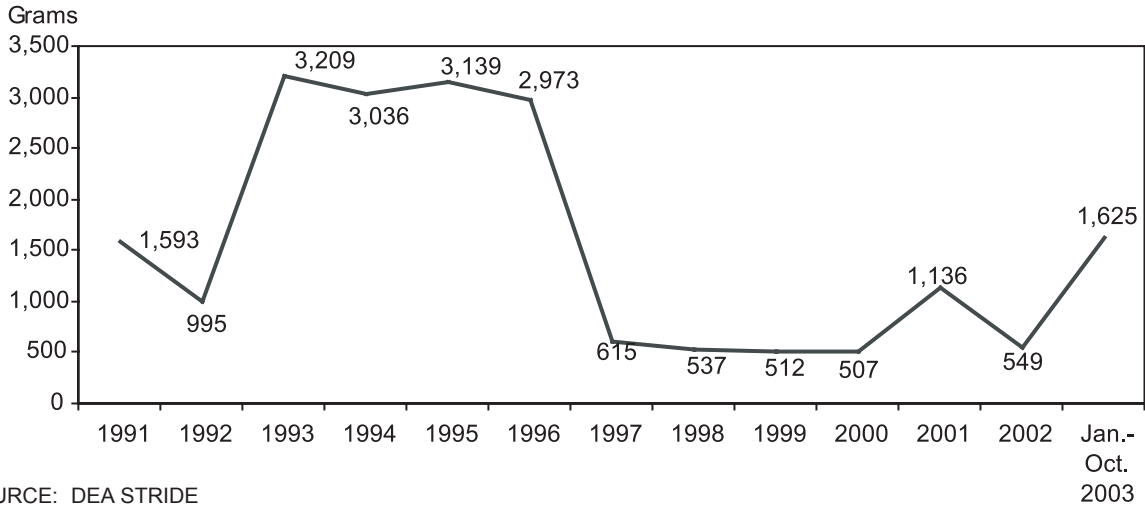


SOURCE: DEA STRIDE

From January through October 2003, 1,625 grams of PCP powder/plant material were reported by STRIDE, more than quantities reported in each of the 6 preceding years (1997–2002) (exhibit D). There was a sharp increase in the milliliters of liquid

PCP reported by STRIDE in 2002 (exhibit E). This increase was probably related to a seizure of a large PCP lab in Baltimore in November 2002. In addition to the chemicals, 4 gallons of the finished product were seized.

**Exhibit D. Quantities of PCP Powder/Plant Material (in Grams): 1991–October 2003**

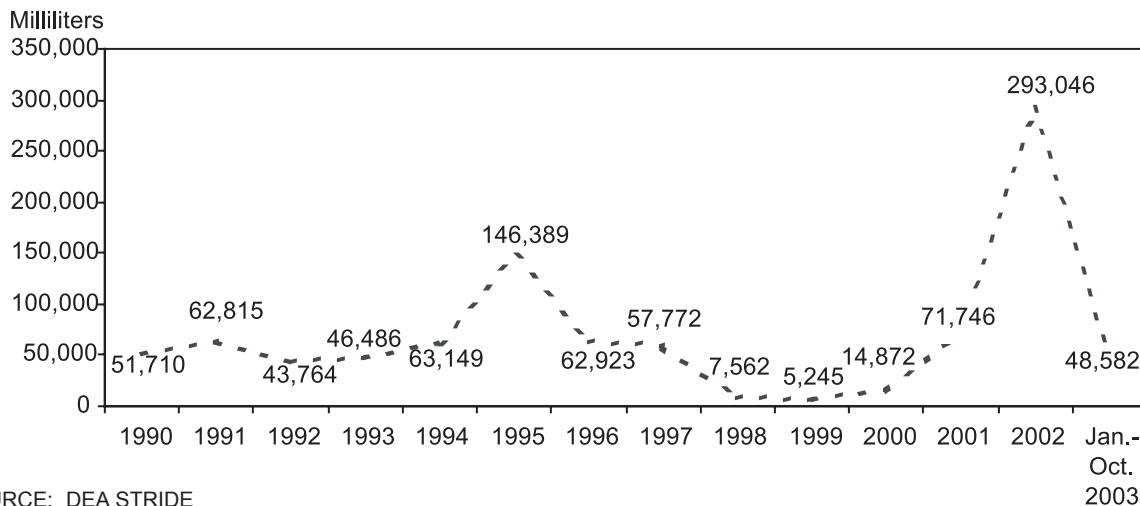


SOURCE: DEA STRIDE

In recent years, PCP has been found in tablets sold as ecstasy. In December 2002, 51,000 tablets containing PCP, MDMA, and ephedrine were seized in New York. Low amounts (2.3 milligrams) of PCP were also found in 28,511 tablets seized in New York in August 2003. In May 2001, tablets containing PCP, MDA,

and methamphetamine were seized in Washington State, and tablets containing PCP and ephedrine were seized in Pennsylvania. Tablets containing PCP and a variety of other substances (ketamine, MDMA, ephedrine, guaifenesin, caffeine, acetaminophen, and lidocaine) were seized in Chicago in 2002.

**Exhibit E. Quantities of Liquid PCP (in Milliliters): 1990–October 2003**



SOURCE: DEA STRIDE

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# PCP Use and Trends in Washington, DC: Two Qualitative Methods for Investigating Leads from Indicator Data

*Eric Wish, Ph.D.<sup>1</sup>*

## OVERVIEW

In 2003, indicator data began to show evidence of an increase in the use of PCP in the Washington, DC, metropolitan area. These indicators showed that PCP-related treatment admissions reached a 5-year high among Prince George's County residents; PCP ED mentions in the metropolitan Washington area increased nearly 100 percent between the first halves of 2001 and 2002; and data from the DC. Pretrial Services Agency urine testing program showed a rise in PCP positives from the low single digits in the late 1990s to current levels in the mid-teens. While the findings from the quantitative indicators were noteworthy, the data were not current and did not provide descriptive information about PCP use and possible reasons for its increase. The Center for Substance Abuse Research (CESAR) conducted two small exploratory studies with support through the CEWG contract to obtain qualitative information on PCP use in the Washington, DC, area for the December CEWG meeting.

## METHODS

Two methods were used to recruit 20 subjects for a rapid qualitative study of PCP use in Washington, DC. An ethnographer, who used key informants to recruit PCP users, conducted 10 one-on-one audiotaped interviews. In addition, a research interviewer identified (with the assistance of a recruiter) individuals who had street-level knowledge about PCP and its use. Two trained interviewers conducted 10 interviews.

All interviewees were African-American. Most (7) of the interviews conducted by the ethnographer were with females, while most (7) conducted by the research assistants were with males. PCP users interviewed by the ethnographer were younger (mean age of 26.1) than those contacted by the research interviewer (mean age of 29.0).

The University of Maryland IRB reviewed and approved both qualitative approaches. Each respondent received \$25 as an incentive for participation in an interview. Interviews ranged in time from 30 minutes to 1 hour. The interviewers asked a series of

open-ended questions and probed to gain more insight and understanding regarding the subjects discussed.

## FINDINGS

The information obtained from the two qualitative approaches was strikingly similar. The findings, including quotes from respondents, are included under the headings below:

### Methods of Using PCP

"Dippers" were the most frequently mentioned method of using PCP ( $n=19$ ). Newport® is the most frequently used brand of cigarettes used for dippers.

*You had to roll the boat then, but now you just dippin it.*

*Most people (age 17 to 25) do it as a dipper—a cigarette dipped in PCP or 'water,' dried out, and smoked. They buy it by the cigarette.*

Other methods identified by respondents involve sprinkling crack on PCP (called "woolies") or dropping ecstasy pills into vials of liquid PCP.

*They have a sack of PCP, then they might buy a dime rock of crack and crunch it down and sprinkle it on the PCP, and they call it a woolie.*

### Describing PCP

Many of the respondents described PCP as embalming fluid ( $n=11$ ) or as a major ingredient ( $n=7$ ).

*I know what it is...embalming fluid...When I was in school, they talked about PCP being embalming fluid.*

*Ingredients depend, some use embalming fluid, some use peroxide in addition to embalming fluid. There are rumors about bleach.*

*They make it two different ways. The right way is really marijuana that's grown from the earth, that's wet down with embalming fluid.*

<sup>1</sup>Major contributors to these efforts were Erin Artigiani, M.A.; Jerry Brown, Ed.D.; Sarah Canham, B.A.; Tom Gray, M.A.; and Cherise Matheson.

*PCP can't be smoked straight, so it is cut with different bases (embalming fluid, baby oil, a non-acidic liquid, horse tranquilizers).*

*Some people know the difference and some don't. Some people think PCP is embalming fluid (but it isn't) and others know it's an ingredient. Don't know why there is confusion.*

One respondent said that PCP quality varies based on other ingredients it is mixed with.

### PCP Effects

Seven respondents indicated that the drug made them feel stronger or more powerful.

*PCP keeps you up. It makes you feel stronger than you actually are. The downfall is the same thing... it makes you feel stronger than you actually are.*

*It brings out courage in a lot of folks; can carry out fantasies that are in the back of your mind... some people bring in strength and think they're invincible.*

*...you think you can beat the world.*

*You don't make logical decisions when you off of it. You think you are unbreakable and nothing can possibly happen.*

*They feel like they are powerful and certain things they could not normally do without the drug, they could do it.*

### Negative Effects

Fifteen respondents indicated that PCP causes users to lose control, as in the following examples.

*Really, you can't think. You don't have a mind of your own when you're high. It has you stuck. And, I mean stuck... however you feel before you use the drug, you're going to react off that feeling.*

*...it's something that you can't control. You don't control it. It really controls you.*

*...you hallucinate off it. It has you thinking that you're something you are actually not.*

*When you smoking, you got to have a strong mind because when you have a weak mind, it is going to take over you.*

### Frequency of Bad Trips

Many respondents indicated that bad trips were infrequent. Yet, almost all could identify bad experiences such as the following:

*I either wake up and don't know where I'm at or I've ended up with somebody that I don't know who I'm with.*

*I got stuck and couldn't move.*

*You're not thinking rationally. You feel stronger, more paranoid, although you're slow. You do not go out of your way to commit crimes, it just happens. It's the stimulus to enhance your potential to be violent.*

*The baddest experience I had was I really thought I was controlling the trains... the Metro trains.*

*My friend...was hallucinating, and she made her own heart stop beating or beating faster.*

### The PCP Experience

When offered a chance by the ethnographer to say anything they wanted about PCP, eight respondents spoke negatively about the drug.

*I'll make it straight to the point and very brief. If you haven't smoked it, don't smoke it because it's addictive. It's very addictive.*

*My advice to others is: If you haven't tried it, don't try it. That's all.*

*When you first start, you will think the high is real cool. You'll feel good. Then you get addicted... you won't come back.*

*It's not a good thing... you shouldn't try it.*

### FINDINGS REGARDING THE METHODOLOGY

Results from both approaches were strikingly similar.

Informants/recruiters played an essential role in identifying and establishing relationships with PCP abusers, ensuring the effectiveness and efficiency of the research.



## PCP Use and Trends in Los Angeles: Two Qualitative Methods for Investigating Leads from Indicator Data

*Beth Finnerty, M.P.H.*

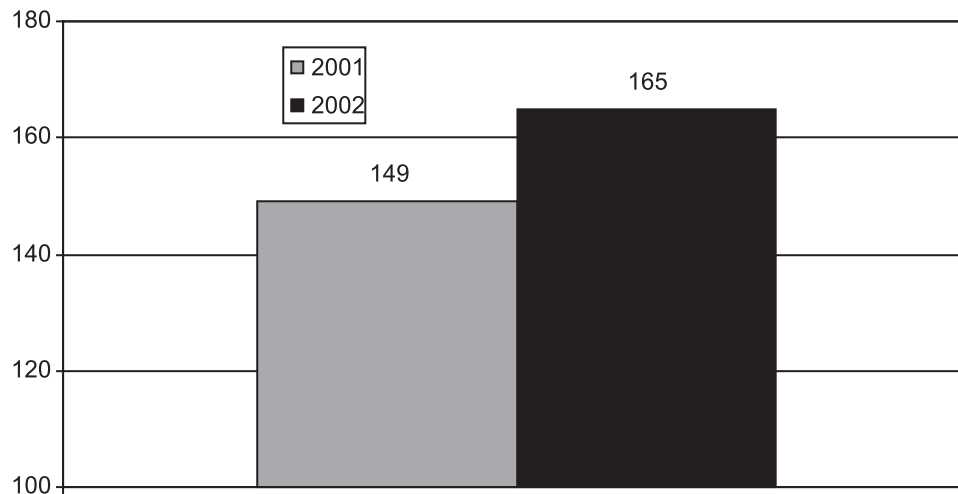
### BACKGROUND

Los Angeles is the primary source for most of the PCP distributed in the United States in recent years. Seventeen of the 24 PCP laboratories seized in the United States from 1998 through 2002 were located in Southern California, according to the Drug Enforcement Administration (DEA). Through a DEA initiative in 2003 called operation “Running Waters,” 28 individuals in the central district of California

(including the Los Angeles area) were indicted for the illicit production and distribution of PCP. The PCP, manufactured by a Los Angeles-based criminal group, was destined for several States, including Illinois, Kansas, Missouri, and New Jersey.

As shown in exhibit F, there was an 11-percent increase in PCP arrests in the city of Los Angeles from 2001 to 2002.

**Exhibit F. PCP-Related Arrests in the City of Los Angeles: 2001–2002**

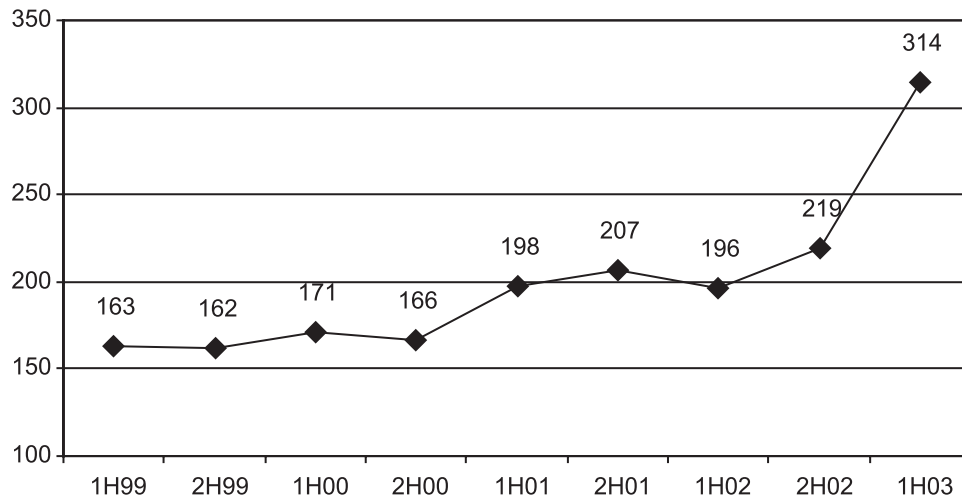


SOURCE: Los Angeles Police Department, Narcotics Division, 2003

There was also a 93-percent increase in primary PCP treatment admissions in Los Angeles from the first half of 1999 to the first half of 2003 (exhibit G). The

sharpest increase in these admissions occurred in the first half of 2003, when 314 PCP abusers were admitted to treatment.

**Exhibit G. Primary PCP Treatment Admissions in Los Angeles: 1999–June 2003**

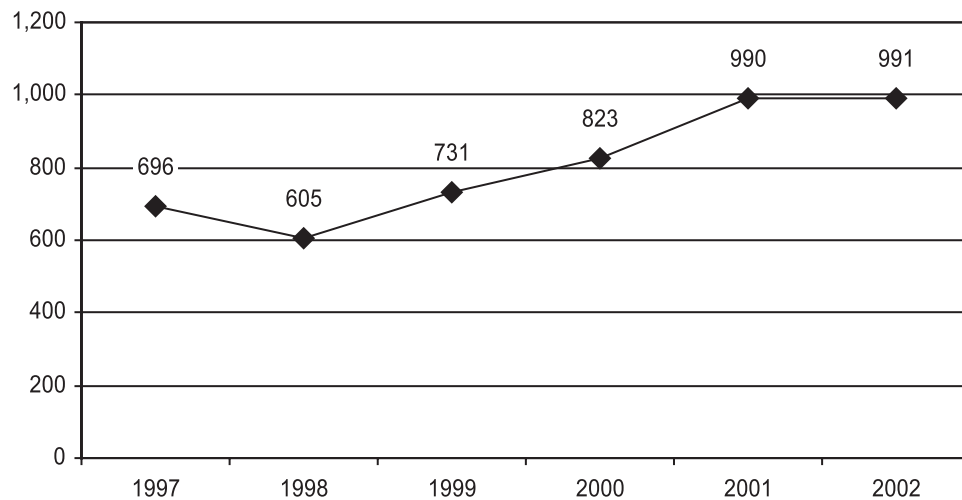


SOURCE: California Alcohol and Drug Data System, ADP, 1999–2003

Between 1997 and 2002, there was a 42-percent increase in the number of PCP emergency department (ED) mentions reported in Los Angeles by the Drug

Abuse Warning Network (exhibit H). PCP ED mentions leveled off between 2001 (990) and 2002 (991).

**Exhibit H. PCP ED Mentions in Los Angeles: 1997–2002**



SOURCE: California SAMHSA, Office of Applied Studies, DAWN, 2003

Data presented at the June 2003 CEWG meeting illustrated that PCP indicators had increased in five CEWG areas and were relatively high in Los Angeles, compared with other cities. Following the meeting, researchers from UCLA Integrated Substance Abuse Programs (ISAP) planned a qualitative study of PCP abuse to investigate leads from the indicator data. The author collaborated with Elizabeth Hall, Ph.D., and Stacy Calhoun, M.A., to conduct the focus groups and key informant interviews; both have extensive quali-

tative research experience. The small exploratory study, supported through the CEWG contract funded by NIDA, was organized to determine what could be learned quickly about PCP patterns and abusers.

Because of unanticipated delays in the human subject protection approval process, the study commenced in mid-November 2003. From November 19 to December 5, 2003, the study team conducted three semistructured, 30-minute key informant telephone

interviews (two with law enforcement personnel, and one with an alcohol and drug treatment program counselor) and two 90-minute focus groups (with individuals enrolled in treatment at one residential program and one outpatient program). Fourteen male clients (evenly divided between African-Americans and Hispanics ranging in age from 28 to 48) participated in the focus groups. The focus group moderator/key informant interviewer started each discussion with a predetermined set of questions and probed for additional information as questions emerged or to obtain a greater understanding of the responses. Several common themes emerged throughout the various discussions, some of which are highlighted below.

#### PRELIMINARY FINDINGS

##### Key Informants

Liquid PCP is the predominant form available in Los Angeles. Cigarettes are dipped in the liquid and smoked. A less frequent method of administration is to add liquid PCP to marijuana or mint leaves, roll a joint, place the joint in the freezer so that the PCP crystallizes, and then smoke the joint. Personal supplies of PCP are often kept in a refrigerator or freezer to keep the supply fresh and avoid evaporation. One key informant stated that some users believe they are using formaldehyde or embalming fluid rather than PCP. Users believe that other substances, such as brake and lighter fluid, are mixed with PCP. Common terms for PCP include “sherm,” “duster,” “fry,” and “willy.” With regard to price, a “half dip” costs \$5–\$10, a “full dip” costs \$20–\$30, and an ounce costs \$300–\$400. Because of a recent seizure of a large quantity of PCP, prices went through the roof.

A number of effects from using PCP were identified, including feeling super strong, escaping reality, forgetting problems, and mellowing out. PCP users are easily confused, have difficulty holding a thought, and stutter. Informants mentioned the possibility of PCP-associated violence, but stated that the incidence of violent behaviors is lower now than in the past.

In terms of PCP production, the key informants reported that a tight group of individuals (mostly African-American) manufacture and distribute PCP in Los Angeles. Availability and price of PCP varies as the main producers are arrested, sentenced to serve time in prison, and released. PCP is generally marketed in South Los Angeles, Compton, but it is also available in East Los Angeles.

##### Focus Groups

The focus group participants also referred to liquid PCP and the dipping of menthol cigarettes (e.g., Kool® brand) in the liquid. Menthol cigarettes are preferred because PCP makes the users’ mouth hot, and menthol cigarettes “cool the mouth” and mask the chemical taste of PCP. Common street names include “superbase,” “kookysticks,” “lovely,” “wet daddy,” and “loogie.”

Focus group participants talked about putting PCP dust on marijuana or mint leaves and keeping supplies in a freezer. More than one participant described an alternative way of administering PCP, called a “20/20 Blast” or “A1 Blast,” in which a crack rock is added to a marijuana cigarette, which is then dipped in liquid PCP and smoked. A 2-inch brown glass vile costs \$50 (called a “50 pour”), and a “half dip” cigarette costs \$10. Participants talked about the packaging of 1-ounce quantities of PCP in Gerber baby food jars or Gatorade bottles. Colored containers are preferred because PCP can have a color/tint to it (depending on the production process).

A variety of effects from PCP was identified, including extraordinary strength and inner warmth. A number of negative effects were identified from smoking the stick, including impaired speech and vision and the inability to move (referred to by several participants as getting stuck). Also of concern were the addictiveness of PCP and possible long-term effects, such as memory loss, flashbacks, closing down, and brain damage.

While many drugs, such as crack cocaine and marijuana, are widely available throughout most of the area, PCP is sold only in certain, distinct areas of the city. Participants stated that it is difficult to find PCP in downtown Los Angeles because it is an open air market, and drug users and dealers are always on the move.

In describing patterns of PCP use, focus group participants said the drug is not used with alcohol. Alcohol reportedly “messes up the effects of PCP.” Participants also reported that, initially, PCP abusers start using the drug in groups. Because PCP tends to be an unpredictable drug, however, users preferred to use it alone and in a safe location.

A detailed final report, which will incorporate additional key informant interviews and focus group data, will be available prior to the June 2004 CEWG meeting.

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# Tracking the Presence of “Dust” in Connecticut

*Jean J. Schensul, Ph.D., Orlando Velazco, Gary Burkholder, Ph.D.*

## BACKGROUND

Connecticut is one of several epicenters for the re-emergence of PCP distributed through formaldehyde or embalming fluid-soaked tea, tobacco or mint leaves, or marijuana leaves that are often mixed with other toxic substances and adulterants. These products are known variously as “amp,” “fry,” “wet,” “illy,” “dust,” or “embalming fluid.” NIDA-funded research in Hartford over the past 3 years has shown that more than 90 percent of polydrug-using youth between the ages of 16 and 24 have tried these products. Formaldehyde-based products are not considered to be illegal, and they are not perceived to contain illegal drugs such as PCP, although in many cases they do. Thus, they attract little attention from officials unless they are associated with excessive use of violence, as in the case of several murders (one involving a stabbing and the death of a child) or police responses to young males who demonstrate extreme anger and excessive force when apprehended. The ingestion of formaldehyde-based products appears to be a significant and growing public health hazard, but it is poorly recognized and has not yet been effectively addressed by drug preventionists, health educators, and mental health professionals. This report summarizes what is known about the history and current distribution and use of formaldehyde-based products in Connecticut, along with descriptions of experiences incurred when using these substances. It concludes with some suggestions for monitoring and preventive action. Data were obtained through archival searches, participant observation in sites where youth use drugs, in-depth interviews, and surveys with drug-using youth between the ages of 16 and 24.

Formaldehyde-related products were identified in Connecticut in the early 1990s. Reports based on emergency room experiences and unexpected deaths trickled in from 1994 to 2000. In 1994, a health alert was issued based on several cases treated at the Yale New Haven emergency room (Brewer et al. 1994). In 1996, Moriarty published a description of new trends in street drug use that focused on “illy” (Moriarty 1996). A drug cocktail tied to the death of a teenager in the small town of Green River, Connecticut, in 1999 highlighted the widespread presence of this drug outside the State’s urban centers (Guzman 1999). Later, a report identified the use of “illy” associated with the violent death of a young African-American

male (Schiff 2000). In 2000, a report to NIDA and a published report highlighted ecstasy and formaldehyde-based products as the main new drug trends in the central Connecticut urban areas (Hartford and New Haven), including increasing evidence of use among high school students (Schensul 2000). Also in 2000, a paper was published documenting the use of “illy” among older adult drug users, primarily African-Americans (Singer et al. 2000). From 1999 to 2001, field researchers studying drug use among urban youth began to report the use of formaldehyde-based substances, by then no longer referred to as illy. Instead, youth used the terms “lik-lik,” “wet,” “dust,” and, more recently, “matrix.” These terms probably reflect the same substance, newly marketed to a younger group of clients who preferred to avoid identification with “illy-using” older hard drug users.

The number of reports of emergency room cases and violence associated with PCP increased dramatically in 2002 and 2003, as did accounts of violence and death associated with PCP and the arrest of liquid PCP dealers. In November 2002, the Cable News Network (CNN) produced a documentary on “dust” filmed in New Haven and Hartford, which portrayed the widespread presence of PCP in the area (CNN 2002). These reports and interviewer assessments suggested that PCP use among youth and young adults was increasing in the Hartford area.

## PCP Distribution

Most PCP is manufactured in Los Angeles (although there were reports that a secondary PCP laboratory was closed in New Jersey during 2003) and shipped in liquid form to distribution points across the country. New York is a primary distribution point for the Northeast, and Hartford is a secondary distribution point. Arrests for possession of PCP products have occurred in communities north and west of Hartford, as well as in New Haven. Hartford distributors obtain PCP from New York by either traveling to the city or sending buyers to distribution points in New York. It arrives in liquid form, is processed in a number of locations in Hartford, and is sold in smokeable form or, less often, as a liquid for dipping. The rise of reported incidents of use, emergency room episodes, and arrests of distributors/producers appears to coincide with the imprisonment and release of PCP manufacturers in Los Angeles.

The authors believe that the origins of the term “dust” stem from a manufacturing process in which formaldehyde, liquid PCP, or both, are added to leaves (mint, tea, or marijuana), baked, and then crumbled into a fine dust-like substance that can then be sprinkled on or mixed with cigar blunts, marijuana, or tobacco products and smoked. The dense sticky black product that results from soaking leaves in formaldehyde or liquid PCP (or both) and freezing them is referred to as “wet.” These products, wet or dry, are bagged or bottled and sold in small quantities and smoked in joints, blunts, or alone in a bong. Liquid PCP has been reported to be available in the Hartford area in small vials. Customers purchase a “dip” by dipping their cigarettes into these vials.

### Marketing of PCP

In the Hartford area, PCP is known as “illy,” “clickers,” “clickems,” “tikal,” “decal,” “wet,” “ill,” “suicide,” “lik-lik,” “lets go swimming,” “purple rain,” angel dust, “heemee,” “black” and “matrix.” Since 2000, the terms for these products have increased in number, and they refer to different qualities of the substance, different manufacturing/preparation procedures, or the type of marijuana with which the formaldehyde or PCP is mixed. In addition, producers are adding a variety of adulterants or diluents (including hazardous substances such as roach spray, acetone, and nail polish) that produce differences in strength, duration, taste, and quality of the “high,” or that mimic the effects of PCP. The use of multiple descriptive terms is a marketing strategy that suggests that street competition for sales is increasing and users are becoming more selective in their preferences. Regardless, the products are all subsumed under the general category of “dust.”

Respondents are unclear as to whether the substances they purchase actually contain PCP. At least one-half of the respondents interviewed in a study of polydrug-using youth and young adults in Hartford said that dust or wet consisted of a combination of formaldehyde or embalming fluid and leaves (tea, mint, marijuana, or tobacco). Several said that formaldehyde could be obtained by placing orders on the Internet, and embalming fluid could be stolen or filtered from laboratories or veterinarians’ offices. There have been several reports of such thefts over the past several years. Respondents know they are smoking dust because the formaldehyde or embalming fluid burns with a characteristic unpleasant odor that makes it difficult to use in public places, such as clubs or bars. Some informants believe that the PCP

is diluted in the formaldehyde. As one youth noted when asked whether it was weed or mint leaves mixed with embalming fluid or mixed with PCP:

*No it's embalming fluid and PCP mixed together... yeah, that's why they flips like that, that's exactly what it is. I seen them cut it and everything - yeah that's what it is I, umm, seen it. I told you I walked into somebody's house, they had a plate full of it (black powdery dust) and everything - that's what it is.*

The street price of dust has declined significantly over the past 3 years. In 2000, the cost was \$15–\$20 per nickel bag (one-time use) and \$30 for a dime bag (two-time use) whereas in 2003, the cost was \$7–\$10 per nickel bag and \$15–\$20 per dime bag. Over the period 2000–2002, rates of dust use remained stable in the polydrug-using population of youth age 16–24 (a mean of 77.5 percent throughout the study period). Singer’s paper on illy use indicates that dust has been used in Connecticut since the mid 1980s among adult drug users (Singer 2000). Data suggest that by 1999, at the start of the polydrug study, urban youth knew about and were regularly using formaldehyde-related products (cf. Schensul 2000).

### PCP Use: A Baseline Study

The baseline study of 401 polydrug-using youth and young adults age 16–24 was conducted in Hartford between 1999 and 2001 (NIDA Grant #1 R01 DA11421, Pathways to Hard Drug Use among Urban Youth). These youth were recruited using a targeted sampling plan and a network recruitment strategy. Contact youth, referred to as “seeds,” were identified in neighborhoods of the city known for high crime rates, unemployment, commercial sex work, and drug trafficking, based on their self-reported use of alcohol or any form of marijuana and one other drug at least once in the previous 30 days. After being asked about their peer networks, they were invited to introduce eligible peers to the project staff for interviewing. For these polydrug users, dust (leaves and embalming fluid with or without PCP) was the third substance of choice, after alcohol and marijuana. Eighty-nine percent of the sample reported ever having used a formaldehyde-related product (including any form of formaldehyde/embalming fluid and leaves, or marijuana with PCP combined), and 78 percent reported past-30-day use, with a mean of 9 days per month. The same percentage reported past-48-hour use, with a mean use of 1.4 times. Thirty percent claimed ever to have used marijuana specifically with PCP, and 16 percent reported use in the previous 30 days. In this

polydrug-using sample, the use of formaldehyde-based products is widespread, resembling the use of marijuana.

Ethnicity but not gender nor age was associated with dust use. Black/African-American/West Indian/Caribbean respondents were more likely than Latino/Hispanics to have ever used dust ( $p=.02$ ) and to have used dust in the past 30 days and the past 48 hours (each  $p=.03$ ). Since dust is more expensive than regular marijuana, it is not surprising that dust use is positively related to past-30-day income, that is, those who had higher past-30-day incomes were more likely to report more days of use in the previous 30 days ( $r=+.14$ ,  $p=.001$ ). The mean age of initiation of dust was approximately 16.6 years, compared with 14 and 15 years for alcohol and marijuana, respectively. Unlike marijuana, alcohol, and ecstasy, dust does not appear to be a drug used for better sex. (Fifteen percent of the dust users reported ever using it for better sex, compared with nearly 50 percent of ecstasy users).

### Experiences on Dust

Those who reported ever using dust were more likely to have been involved at some time in their life in drug sales ( $p=.001$ ). Those reporting current involvement in drug sales were more likely to also report past-30-day and past-48-hour dust use ( $p=.01$  for both). Dust use was related to ever carrying a weapon (ever used dust,  $p=.004$ ; past-30-day and past-48-hour use,  $p=.01$ ) but only marginally related to carrying a gun in the past 30 days ( $p=.06$  for ever use, past-30-day use, and past-48-hour use of dust).

Those who used only dust (defined by reported use of drugs but never any ecstasy or any other club drugs,  $n=164$ ) were compared with respondents who reported using only ecstasy ( $n=75$ ) but never used dust or any other club-type drug. The results showed that African-American youth were more likely to use dust than ecstasy. Dust users reported fewer school-related risks, more pressure to avoid drugs, and less positive attitudes about substance use; they also were more likely to perceive that use was risky. They were also less involved in drug sales, less likely to carry a gun, and had fewer sexual encounters in the previous 30 days. In general, dust users had friends who were African-American like themselves. They knew their friends longer and used alcohol and other drugs less often with them. These data suggest that dust users experienced fewer social risks than ecstasy users, even though they were involved in selling dust to their friends. This is associated with an overall

pattern in which African-American youth use fewer drugs, sell them to their friends rather than strangers, avoid gang membership, and take other measures to protect themselves from attracting the attention of the police. Fifty-three percent of youth interviewed about their club attendance (a subsample of 206) reported that they had used dust in a rave, club, or after-hour setting, and 32 percent reported buying it, making dust a so-called “club drug.” However, it is possible to find private sites (bathrooms, parking lot, cars, balconies, streets) near these locations where dust can be smoked without attracting attention because of its recognizable odor. Until 2002, when instances of violence associated with PCP gained media attention, dust users were virtually ignored at these spots.

### Effects of Use

Dust users report three different types of effects that can be labeled as negative (undesired or unpleasant), neutral (neither pleasant nor unpleasant), and positive or desired. Positive or desired effects include feeling invincible, feeling happy, enhancing current feelings or emotions, feeling good, relieving stress, and reducing fear associated with dangerous situations such as selling drugs or heading into a fight. One dust seller/user said she used dust and ecstasy for different purposes. She preferred using dust before planning to go to a site where a fight might break out, and she chose ecstasy to enjoy a relaxed time with friends. Among neutral effects are “getting stuck,” experiencing body heat, losing track of things, feeling numb, and feeling mindless. Many respondents described negative effects, including acting violently, losing control, feeling vulnerable and exposed to danger because of the inability to move, removing clothes and running about nude in public, and behaving in unusual ways. Unpleasant physiological reactions included rapid or accelerated heartbeat and difficulty breathing.

Approximately 45 indepth interviews were summarized to extract items for the creation of an indigenous PCP (dust) expectancy scale that included items related to violence and numbness or “zoning out,” (negative expectancies), touching, sexuality and sensuality, and mood alteration. This scale was administered to a pilot sample of 50 respondents who were asked to answer each of these items either affirmatively or negatively. Response frequencies varied by item. Between 64 and 78 percent of respondents held negative expectancies, 45–56 percent reported sensual/sexual expectancies, and approximately 75 percent reported expectancies related to mood changes. The responses produced dust expectancy subscales representing negative or unpleasant reactions (10 items;

Alpha .94); sensuality/sexuality (7 items; Alpha .89); and mood change (5 items; Alpha .83).

Respondents were then asked if they had used dust, and if so, to indicate which of the experiences they had had. The areas of highest congruency with negative expectancies were violent images, reduced appetite, and focus on self (of those who reported using dust, approximately one-half of the sample, 12, 25, and 75 percent respectively, reported these experiences). The frequency of reporting of other experiences was significantly less for other items in this subscale. For sensuality, expectancies with the highest percentages of responses were enjoying touching and moving more (25 and 31 percent, respectively). With respect to mood change, the experiences most cited were feeling happy and “up” (56 percent) and current mood enhancement (regardless of mood) (31 percent). The small sample size makes it difficult to interpret the meaning of these discrepancies. In particular, it is unclear as to why expectancies regarding violence and negative reactions are not borne out in actual experience, when most of the stories youth tell about dust reflect violent experiences among their friends or people they know. Of further interest is the notion that PCP, like many other substances, is viewed as a means of enhancing desired or existing mood states or as a disinhibitor.

### Summary

The substance referred to as “dust” in the Northeast is problematic for a number of reasons. First, it appears to be a social drug that young people have used for the past decade or more, for a variety of desired effects, and with apparent minimal apparent health and social consequences. The drug has become increasingly visible over the past 3 years because of its increasing association with violence. It is possible that increases in violence are associated with higher PCP content of dust products. This, in turn, may be related to efforts to promote increases in the sale of PCP in locations where it has been used infrequently or at low levels for some time or where the market has been prepared through the intentional distribution and use of products with low levels of PCP. It is also possible that increases in reported violence and in police cases have to do with products that are higher in PCP content than in the past.

Of concern in the greater Hartford and New Haven area is the fact that youth who are exposed to drug users and have ready access to PCP products know little about the product and its short- and long-term effects. They do not use the Internet for information

about the drugs they ingest; instead they depend on their friends and dealers they know and trust. Thus, they are learning by experience and sharing that experience with others. Diffusing negative experiences and advice about product safety through these personal networks is a slow process, when compared with middle-class use of the Internet. New approaches are needed to illustrate the detrimental effects of formaldehyde-related products, as even those that do not contain PCP have harmful side effects.

Finally, despite the experiences in New Haven emergency rooms, which have been widely publicized, emergency rooms and services in other areas of Connecticut are not prepared to test for or to treat for PCP. While there are procedures listed for assessment and treatment, discussions with emergency room personnel suggest the lack of widespread awareness of the problem. Protocols for screening and treatment of youth with symptoms of PCP use should be put in place immediately. Health education with respect to formaldehyde-based products should be available through organizations such as the Institute for Community Research and those funded to promote drug prevention through the State Department of Mental Health and Addiction Services.

### REFERENCES

- Brewer, P.A.; Pearsall, R.; Updegrave, S.; and Pestana, E. “Resurgence of Phencyclidine Abuse by Urban Adolescents and Young Adults.” New Haven, CT: Yale-New Haven Hospital. Unpublished manuscript, 1994.
- The Cable News Network. CNN presents: Fried [Videotape]. Lanham, MD: Federal Document Clearing House, 2002.
- Guzman, K. “Drug Cocktail Tied to Teen’s Death, Toxic Compound Includes Marijuana.” *The Hartford Courant*, 27 March 1999.
- Modesto-Lowe, V. Illy Users in Connecticut: Two Case Reports. *Association for Medical Education and Research in Substance Abuse* 23(4):255–257, 2002.
- Moriarty, A.L. What’s ‘New’ in Street Drugs: ‘Illy.’ *Journal of Pediatric Health Care*, 10: 41–43, 1996.
- Modesto-Lowe, V., and Petry, N. Recognizing and Managing ‘Illy’ Intoxication. *Psychiatric Services* 52(12): 1660, 2001.

Pestana, E., and Bayer, M. *PCP makes a comeback as illy*. Plainville, CT: Connecticut Clearinghouse, 1994.

Schensul, J. "Monitoring New Drug Trends in Urban Youth." Paper presented at the NIDA REACT Meeting, San Francisco, CA, 2000.

Schiff, J. Illy Too New to Know. *The Forensic Echo* 4(4), 2000. Retrieved October 15, 2003, from <<http://echo.forensicpanel.com/2000/3/1/illytoo.html#commentary.2000>>.

Singer, M.; Juvalis, J.A.; and Weeks, M. High on Illy: Monitoring an Emergent Drug Problem in Hartford, CT. *Medical Anthropology* 18: 365-388, 2000.

Singer, M.; Clair, S.; Schensul, J.; Huebner C.; and Pino, R. "Dust in the Wind: The Growing Use of Embalming Fluid Among Youth in Hartford." *Drug Use and Misuse*, in press.

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## Summary and Suggestions for Future PCP Research

*Harvey Siegal, Ph.D.*

The PCP Panel and CEWG reports suggest that PCP abuse indicators have been increasing in some areas, especially in the mid-Atlantic areas. There is concern that PCP abuse may be spreading to other areas. The clustering of PCP use in the mid-Atlantic, Northeast, and Los Angeles suggests a possible rapid diffusion of information about the drug and, with it, an interest in experimentation. PCP continues to have a reputation as an unpredictable drug. However, the belief that a PCP "high" can be controlled might encourage use.

Important points made by panel presenters include the following:

- STRIDE data show that the number of PCP seizures in liquid and plant form (i.e., mixed with other substances) is increasing and that more PCP is being produced and transferred to different locales. PCP is relatively easy to produce from precursor chemicals, which reportedly are not difficult to obtain; maintaining the drug in its liquid form appears to be a more marketable strategy for distributors.
- Ethnographic interviews conducted in Los Angeles, Hartford, and Washington, DC, document users' experiences with the drug. What constitutes a "bad" experience for some PCP users may be a "good" experience for others. There continues to be a high level of unpredictability in the effects of PCP. As with virtually all illicit drugs, users are uncertain whether the substance they are using is really PCP. Some believe they can identify PCP by smell. Others believe the effects they are feeling are from formaldehyde or some drug other than PCP.

Data from Ohio's Substance Abuse Monitoring (OSAM) Network, a statewide drug surveillance system that makes use of archival and ethnographic research methods, supports the panel findings. The use of PCP in the form of "wets" and "sherms" has been reported consistently over the past several years. However, confusion exists in that some users maintain the effects they are experiencing may be from formaldehyde or embalming fluid.

The recent upsurge of PCP use follows the pattern of most drug use epidemics. Information is diffused in the drug-using communities and is followed by experimentation. Currently, there seems to be an interest in the drug in the African-American community, while in the early 1980s "Devils' Dust" (PCP) was primarily used by the majority community.

Today, PCP is marketed on the street in a variety of forms and combinations with other substances. PCP dealers and abusers are more sophisticated than in the past. Rather than marketing a powder containing PCP, today's distributors dip cigarettes or cigar/tobacco leaves in the liquid base. Sometimes marijuana cigarettes are dipped into liquid PCP. There have also been reports of the use of parsley and other common herbs with PCP.

The PCP user can never be sure of the quality or whether other substances are included in what is sold as PCP. The effects of the drug are also mediated by dosage, psychological set, and the setting in which it is used. With experience, PCP users generally find safe places to use the drug, typically an indoor setting. Smoking can afford the perception that the drug's



effects can be controlled. Any drug, when smoked, rapidly moves into the bloodstream through the lungs, so that the results are experienced more quickly. It is believed that, with experience, one can stop smoking PCP when the high or desired effect is achieved. This belief—that the PCP high can be controlled—encourages use in the drug culture.

General population research will identify only a small proportion of PCP users. While CEWG indicators suggest an interest in and use of the drug, persistent use still appears to be found among committed drug users who tend to be invisible to general population surveys. The exploratory studies conducted by CEWG members make it clear that PCP abuse is a phenomenon that should be assessed quickly. PCP is potentially a very dangerous drug. If widespread use appears among more naïve users, the public health consequences could be severe.

Effective prevention and intervention strategies are best built on a solid research foundation. Multi-indicator research, as well as qualitative studies of active users, can provide insight into the actual risk and perceived rewards posed by this PCP trend. Such research will also offer some perspective on whether the public health community, including the treatment community, can expect a rapid increase in use, as occurred with the crack epidemic of the 1980s, or a more constant spread of a phenomenon, such as the current abuse of methamphetamine. It would be useful to coordinate with and obtain information from police forensic laboratories in areas where PCP is reported as a problem. Studies of treatment data focused on PCP admissions should also be undertaken. DAWN and other useful data sources should be monitored as well.

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## Rural Drug Abuse

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## Introduction

At the June 2003 CEWG meeting, participants identified and discussed drug abuse in rural areas, with some reporting comparative data from rural and urban areas. Major findings are summarized below:

- Geographic boundaries for producing, manufacturing, and distributing drugs have become less distinct, and what occurs in one type of area (urban, suburban, rural) is likely to impact other types of areas.
- Drugs like methamphetamine and marijuana are more likely to be produced in rural than urban areas. In Missouri, the number of methamphetamine labs seized continued to climb. Also, the rate of methamphetamine treatment admissions in rural areas of the State was much higher than those in urban areas.
- Polydrug abuse is proliferating in rural as well as urban areas. Drug distributors and dealers are constantly looking for new markets, and drugs such as crack cocaine are no longer confined to urban areas. Advances in electronic and other means of communication have made it easier to reach new markets. The media have also played a role in identifying substances that can be abused. The Internet provides recipes for making certain drugs.

At the June 2003 meeting, members concurred that the metropolitan focus of the CEWG should be expanded to gather information on drug abuse in rural areas and, if possible, to compare patterns and trends in rural and urban areas. Many large federally supported data systems such as DAWN and ADAM do not collect data from rural areas, and data from treatment centers

tend to be weighted toward urban areas because of a lesser capacity to serve rural areas. These factors were acknowledged as barriers to obtaining standardized information on rural drug abuse. Other problems were also identified, including the lack of a standardized definition of “rural area,” the diversity of cultures and populations in rural areas, and the fact that there are few databases that can be accessed for secondary analyses of rural drug abuse patterns and trends.

Five CEWG members volunteered to apply and evaluate methods for collecting data and information in rural areas of their States and, in followup communication, agreed upon the following objectives for the small-scale, quick assessments:

- To identify or characterize rural drug abuse problems and issues and, when possible, compare drug abuse in CEWG metropolitan areas to rural areas in the State
- To identify and illustrate methodological issues and approaches, including the types of data or information available, the feasibility of acquiring and compiling the data, and methods of analyzing the data
- To identify problems and limitations in these study efforts
- To consider the feasibility of various possibilities for incorporating some data on rural drug abuse into the CEWG process

The outcomes of these five studies are summarized below.

## Rural and Urban Differences in Missouri Drug Abuse Treatment Admissions

*James Topolski, Ph.D.*

In attempting to assess drug abuse in rural areas, a number of methodological issues must be considered. An initial issue is how to define the terms “rural” and “urban.”

An exploratory study, based on secondary analysis of State substance abuse treatment data, was conducted

to determine whether it was possible to assess differences in drug abuse patterns by rural and urban area. One advantage of using Missouri State treatment data is that they are available online and can be coded in different ways. Another is that the data can be analyzed quickly at relatively little cost.

Since the State treatment programs did not distinguish between rural and urban clients, “proxy” definitions were developed. It was assumed that urban clients were more likely to be treated in metropolitan statistical areas (MSAs) and rural clients in non-metropolitan statistical areas. These two categories were used in this quick assessment to analyze treatment data.

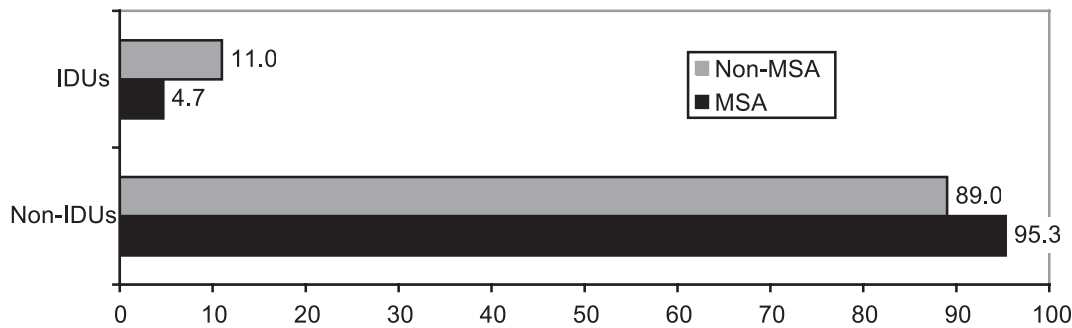
There are limitations in using substance abuse treatment data. Generally, these data are not collected uniformly across all programs. In addition, most treatment programs do not establish strict geographic boundaries and serve clients from areas outside their

own area. Also, methamphetamine admissions are classified under the “Stimulant” category together with other amphetamines and stimulants.

Several exhibits were prepared for the panel to provide examples of the type of data that can be easily produced by secondary analysis of treatment data, including those shown below.

As shown in exhibit A, 11.0 percent of the non-MSA cocaine treatment admissions for the combined years of 1992 through 2000 injected the drug compared with only 4.7 percent of MSA admissions.

**Exhibit A. Average Percentages of Non-MSA Versus MSA Cocaine Injection Drug Users (IDUs) and Non-IDUs Among Missouri Treatment Admissions: 1992–2000**

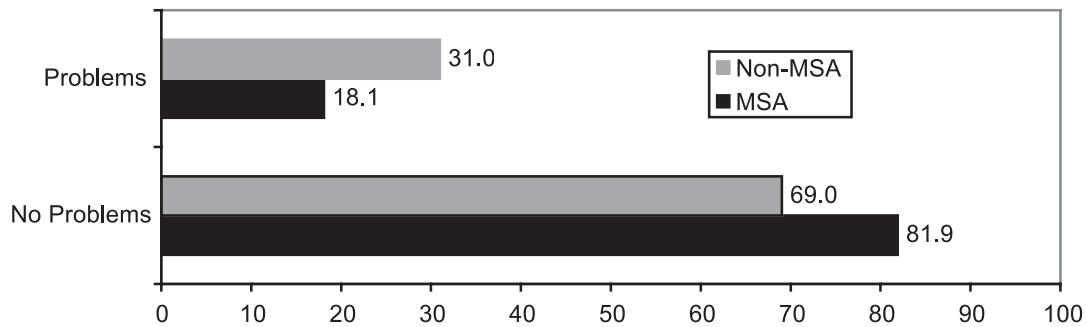


SOURCE: State Treatment Episode Data Set

Co-morbidity among drug abusers is also of interest and is currently being assessed in the State through a grant from the Center for Substance Abuse Treatment, SAMHSA. Exhibit B is an example of how State treatment data can be used to assess and compare co-morbidity among treatment admissions in non-MSA

and MSA areas. Nearly one-third (31.0 percent) of the non-MSA admissions from 1992 to 2000 were diagnosed with psychiatric problems, compared with only 18.1 percent in MSAs.

**Exhibit B. Average Percentages of Non-MSA Versus MSA Heroin Admissions with Psychological Problems: 1992–2000**

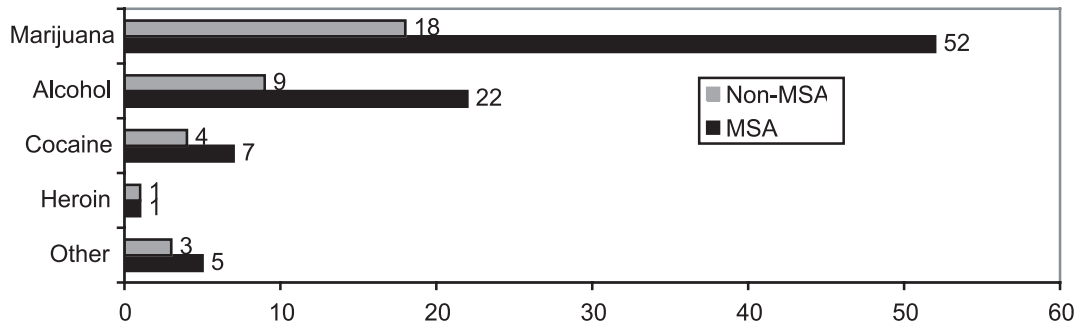


SOURCE: State Treatment Episode Data Set

Another dimension explored involved a comparison of primary and secondary drugs of abuse among treatment admissions. Among primary methamphetamine abusers who entered treatment in 2002, rates for use of secondary drugs were higher in non-MSA than in MSA areas (exhibit C). Methamphetamine admissions

in non-MSA areas were much more likely to also use marijuana (rate=52) than their counterparts in MSAs (18 per 100,000 population). Methamphetamine admissions in non-MSA areas were also more likely to use alcohol and cocaine than those in MSAs.

**Exhibit C. Rates<sup>1</sup> of Secondary Drug Use Among Non-MSA and MSA Methamphetamine Treatment Admissions by Drug: 2000**



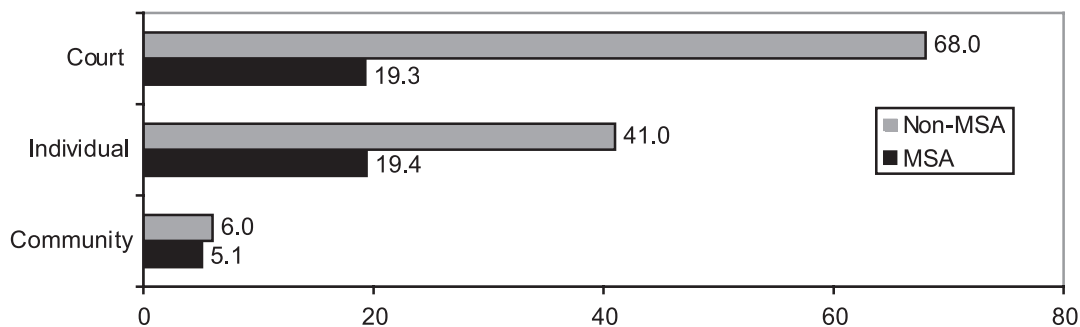
<sup>1</sup>Per 100,000 population.

SOURCE: State Treatment Episode Data Set

As shown in exhibit D, the 2002 methamphetamine admissions in non-MSA areas had much higher rates

of referral from courts than those in MSAs (68 vs. 19 per 100,000 population).

**Exhibit D. Rates<sup>1</sup> of Court and Other<sup>2</sup> Referral Sources Among Non-MSA and MSA Methamphetamine Treatment Admissions: 2000**



<sup>1</sup>Per 100,000 population.

<sup>2</sup>Not shown are small rates of referrals from health providers, treatment providers, schools, and "other" sources.

SOURCE: State Treatment Episode Data Set

In summary, despite limitations, much can be learned through secondary analysis of State treatment data to characterize patterns and trends in "rural" versus "urban" areas. These data, as noted earlier, are easy

and relatively inexpensive to access. The data can be used in the planning phase of a study or as a quick assessment to gain some understanding of the problem and generate hypotheses for future studies.

Ideally, these data can be used along with other data (e.g., from surveys, arrests and hospital data) to learn more about drug abuse patterns and trends in rural areas. Also, there is a wealth of literature on rural health (including mental health) that can help guide

research. It is particularly important to identify barriers to service and recovery. The information needs to be communicated to policymakers so appropriate interventions can be established in rural areas.

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## Differences in Substance Use in Rural and Urban Texas School Districts Participating in the Texas Secondary School Surveys and Treatment Data: 1998–2003

*Jane Carlisle Maxwell, Ph.D.*

### Overview

To provide information on drug abuse for the CEWG Rural Panel, secondary analyses were conducted on two Texas data sources: surveys of secondary school districts and admissions to drug abuse treatment. Analyses of both data sets were for three time periods: 1998–1999, 2000–2001, and 2002–2003. The Texas Commission on Alcohol and Drug Abuse (TCADA) provided the treatment data, and the Public Policy Research Institute (PPRI) of Texas A&M University provided the school survey data.

In both studies, rural counties were defined as any county not associated with Census Bureau-defined areas of at least 50,000 inhabitants and a total metropolitan population of at least 100,000. A school district was “rural” if it was geographically located in a rural county.

Analyses were conducted using Statistical Analysis Software (SAS) V.8. Statistical tests included t-tests, chi-square, and analysis of variance (ANOVA). The significance level was  $p < .05$  unless noted otherwise.

### School Surveys

Since the spring of 1988, TCADA, in conjunction with PPRI, has conducted statewide and local surveys of drug and alcohol use among students in secondary and elementary schools. The statewide surveys are administered every other year, while local district surveys can be administered each year. Since its inception, at least 722, or 60 percent, of the public school districts in Texas have participated in this project, and 3.2 million secondary and elementary students

have participated. As an example of the size of the survey, the 2002 statewide survey results for secondary students were based on the responses of 149,220 students in grades 7 through 12 who were sampled from 77 school districts in the State.

To understand the differences in substance use between urban and rural areas, the investigators analyzed aggregate district data in three groups corresponding to the years the surveys were administered (1998–1999, 2000–2001, 2002–2003). In instances in which there was a duplicate district (one that participated in both the State sample and the off-year survey), the record for the off-year was deleted. Thus, analyses for 1998–1999 included those districts that participated in the State survey in 1998 and those that were surveyed in 1999 without duplicates. All analyses are at the district level; the data are aggregated across all grades and schools surveyed within a district.

In the 1998–1999 cohort, 82 percent of the surveyed school districts were urban, compared with 76 percent in 2000–2001 and 82 percent in 2002–2003.

In terms of demographic characteristics, other than the proportions that were White, Hispanic, or lived with both parents in the 1998–1999 group and females in the 2000–2001 group, there were no major differences between urban and rural school districts (see exhibit E). Rural schools were significantly more likely to have students who had lived in the district for more than 3 years and to have students whose parents were not college graduates. In two of the three school years, rural schools were significantly more likely to have students who qualified for a free or reduced lunch.



**Exhibit E. Demographic Characteristics of Secondary Students in Urban and Rural Texas School Districts by Percent: 1998–2003**

Characteristic	1998–1999		2000–2001		2002–2003	
	Urban	Rural	Urban	Rural	Urban	Rural
Female students	51.3	50.1	52.1	49.7*	51.9	50.2
Live with both parents	63.8	67.6	65.3	66.4	63.2	64.5
White	61.1	51.5*	54.0	51.8	53.7	49.2
Black	9.6	7.7	8.0	5.7	8.2	6.1
Hispanic	25.2	38.7*	33.7	39.1	33.1	41.9
Lived in District >3 years	73.8	79.0*	74.1	79.0*	73.6	77.9*
Parents not college graduates	39.3	44.9*	39.1	45.0*	39.8	45.4*
Qualify for free/reduced lunch	29.9	37.3*	32.8	36.8	33.0	40.5*

\*Statistically significant at  $p < .05$ .

Exhibit F shows the lifetime prevalence of use of different substances for urban and rural schools. For urban schools in all three cohorts, the average level of use of uppers, hallucinogens, downers, and ecstasy was significantly higher. There was no difference between rural and urban schools in lifetime use of

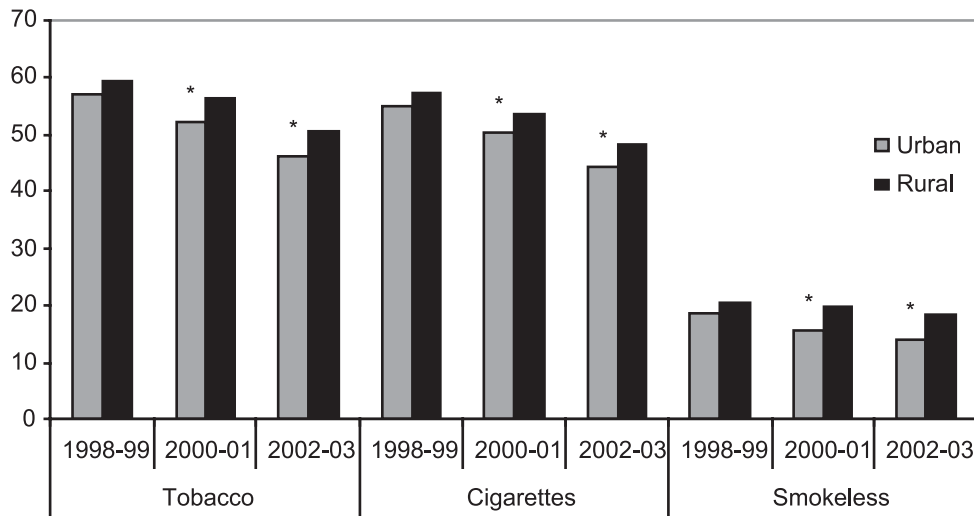
tobacco, cigarettes, and smokeless tobacco in 1998–1999. Use of these products decreased in 2000–2001 and 2002–2003, but the rate of decrease was sharper for the urban schools, resulting in a significantly higher pattern of use in rural schools (see exhibit G).

**Exhibit F. Prevalence of Drug Use of Secondary Students in Urban and Rural Texas School Districts by Percent: 1998–2003**

Lifetime Prevalence		1998–1999	2000–2001	2002–2003	Past-Month Prevalence		1998–1999	2000–2001	2002–2003
Alcohol	Urban	72.0	70.9*	69.3	Alcohol	Urban	38.0	37.4	34.5
	Rural	73.0	73.6	71.3		Rural	37.6	39.0	36.6
Marijuana	Urban	31.5*	28.9	29.8	Marijuana	Urban	13.3*	12.2*	13.0*
	Rural	26.8	27.0	27.8		Rural	10.3	10.0	9.8
Tobacco	Urban	57.1	52.0*	46.1*	Tobacco	Urban	27.8	23.8	20.0*
	Rural	59.3	56.2	50.5		Rural	28.1	25.4	23.3
Cigarettes	Urban	54.9	50.3*	44.4*	Cigarettes	Urban	25.8	21.8	18.4*
	Rural	57.2	53.6	48.3		Rural	25.8	22.9	21.5
Smokeless	Urban	18.6	15.6*	13.9*	Smokeless	Urban	7.2	6.1	5.4*
	Rural	20.4	19.6	18.4		Rural	7.5	7.2	7.8
Uppers	Urban	8.5*	6.8*	7.2*	Uppers	Urban	3.4*	2.7*	3.0*
	Rural	5.4	4.3	4.3		Rural	1.8	1.5	1.8
Hallucinogens	Urban	6.1*	5.0*	4.0*	Hallucinogens	Urban	1.9*	1.5*	1.2*
	Rural	2.7	2.6	2.5		Rural	0.8	0.8	0.8
Downers	Urban	6.6*	5.5	6.9*	Downers	Urban	2.7*	2.2*	3.1*
	Rural	3.9	3.1	4.0		Rural	1.0	1.1	1.6
Any Illicit Drug	Urban	33.2*	30.6	31.5	Any Illicit Drug	Urban	15.1*	14.0	14.7
	Rural	28.1	28.3	28.8		Rural	11.2	11.2	10.8
Cocaine	Urban	7.4*	7.0	7.1	Cocaine	Urban	2.5*	2.6	2.6
	Rural	6.0	7.0	6.6		Rural	1.9	2.3	2.5
Crack	Urban	3.1*	2.6	2.7	Crack	Urban	0.9*	0.7	0.7
	Rural	2.3	2.6	2.9		Rural	0.6	0.8	0.8
Steroids	Urban	2.4	2.7*	2.2	Steroids	Urban	0.8	0.9*	0.6*
	Rural	2.3	1.7	2.7		Rural	1.1	0.6	1.5
Ecstasy	Urban	3.8*	4.7*	6.9*	Ecstasy	Urban	1.2*	1.9*	2.4*
	Rural	1.4	2.5	4.7		Rural	0.4	0.8	1.4
Rohypnol	Urban	5.4*	4.8*	4.2	Rohypnol	Urban	2.0*	1.8*	1.7
	Rural	3.3	3.2	3.2		Rural	1.3	1.2	1.3
Heroin	Urban	2.1*	1.6*	1.5	Heroin	Urban	0.6	0.5	0.5
	Rural	1.3	1.2	1.4		Rural	0.4	0.4	0.5
Inhalants	Urban	21.5*	19.7*	17.3	Inhalants	Urban	7.9*	7.3*	6.3
	Rural	18.6	17.0	16.3		Rural	6.6	5.9	5.7

\*Statistically significant at  $p < .05$ .

**Exhibit G. Lifetime Prevalence of Use of Tobacco Products by Secondary School Students by Percent and School Year: 1998–2003**

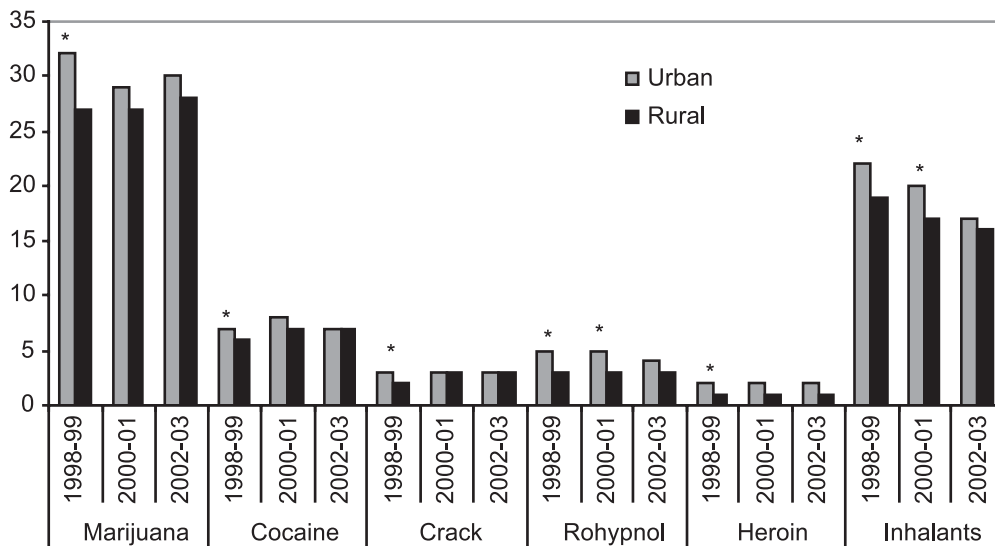


\*Statistically significant at  $p < .05$ .

Levels of lifetime (ever used) marijuana, cocaine, crack, Rohypnol, heroin, and inhalant use were higher in urban schools initially, but by 2002–2003, the differences had disappeared (see exhibit H). Of concern is the fact that use of marijuana, cocaine, and

crack increased in rural schools at the same time use of these drugs was decreasing in urban schools. This same pattern of increase was also seen for steroids (see exhibit F).

**Exhibit H. Lifetime Prevalence of Selected Drug Use by Secondary School Students by Percent and School Year: 1998–2003**



\*Statistically significant at  $p < .05$ .

Past-month drug use presents a slightly different pattern. Across all three cohorts, urban schools reported higher levels of use of marijuana, uppers, hallucinogens, downers, any illicit drug, and ecstasy. Urban levels of use of Rohypnol and inhalants decreased to the point where there was no difference by 2002–2003. Also, while urban levels of past-month use of tobacco, cigarettes, and smokeless tobacco dropped sharply over the years, rural use did not decrease as rapidly, with the result that past-month use of these products by rural students was significantly higher in 2002–2003 (exhibit F).

The survey queries about the ease of obtaining alcohol. There was no difference in urban and rural schools in terms of alcohol being considered somewhat or very easy to get or in past-month usage of alcohol. However, rural schools in two of three school years were significantly more likely to report students getting alcohol from friends or at parties, and that

most or all of their friends used alcohol (see exhibit I). Alcohol was used at most or always at parties by rural students in the current school year, and after 1998–1999, there was no difference in perceptions of the dangerousness of using alcohol, although urban students were more likely to report that their parents strongly or mildly disapproved of youths their age drinking beer.

A similar pattern was seen among urban students and drug use. Marijuana was reported as somewhat or very easy to get, and marijuana or other drugs were reported as used at most or all parties attended by urban students in the current school year (exhibit I). Rural students in all three cohorts were significantly more likely to think it was dangerous to use marijuana, and while the 1998–1999 and 2000–2001 rural cohorts thought it was dangerous to use ecstasy, inhalants, or steroids, these differences disappeared by 2002–2003.

**Exhibit I. Attitudes and Patterns of Use Among Texas Secondary Students in Texas Urban and Rural School Districts by Percent: 1998–2003**

Attitudes/Patterns		1998–1999	2000–2001	2002–2003
Somewhat or very easy to get alcohol	Urban	75.6	73.8	70.8
	Rural	73.1	73.8	70.4
Get alcohol from friends	Urban	38.3	35.6*	32.0*
	Rural	40.2	40.9	36.9
Get alcohol at parties	Urban	42.8	40.5*	36.3*
	Rural	43.5	45.1	40.6
Get alcohol from a store	Urban	11.8*	10.6	10.5
	Rural	10.0	9.3	9.5
Somewhat or very easy to get marijuana	Urban	46.6*	44.8*	45.0*
	Rural	39.2	40.9	39.9
Somewhat or very easy to get cigarettes	Urban	73.9	68.9	65.0
	Rural	72.4	70.3	65.3
Somewhat or very easy to get smokeless tobacco	Urban	55.7	49.4*	45.9*
	Rural	56.8	55.3	51.1
Most or all of friends use alcohol	Urban	38.5	38.3*	33.4*
	Rural	41.8	42.4	38.6
Most or all of friends use marijuana	Urban	17.1*	16.3	16.7*
	Rural	11.6	13.5	12.0
Most or all of friends use inhalants	Urban	2.4*	3.3	1.9
	Rural	1.6	3.1	1.7
Most or all of friends use cigarettes	Urban	22.0	18.2	13.5*
	Rural	23.2	21.4	16.2
Most or all of friends use smokeless tobacco	Urban	6.7	6.6	6.8
	Rural	7.9	8.1	5.9
Use alcohol most or all of time at parties	Urban	38.8*	37.4*	34.3*
	Rural	43.3	42.9	40.0
Use illicit drugs most or all of time at parties	Urban	19.4*	18.0*	18.8*
	Rural	14.0	14.6	13.5
Alcohol always used at parties	Urban	23.9*	23.1*	20.8*
	Rural	28.9	27.0	26.1
Dangerous to use crack cocaine	Urban	88.8	87.9	86.8
	Rural	89.6	89.6	85.8
Dangerous to use powder cocaine	Urban	87.1	86.5*	84.9
	Rural	88.3	88.4	84.8
Dangerous to use inhalants	Urban	76.9*	78.4*	78.0
	Rural	80.2	81.4	78.5
Dangerous to use marijuana	Urban	63.2*	65.0*	61.6*
	Rural	70.5	69.5	65.7
Dangerous to use alcohol	Urban	44.1	45.7	46.3
	Rural	46.7	45.7	45.4
Dangerous to use tobacco	Urban	37.7	43.6*	47.2*
	Rural	39.1	40.4	42.7
Dangerous to use ecstasy	Urban	76.5*	78.0*	80.7
	Rural	80.5	81.7	81.1
Dangerous to use steroids	Urban	76.1*	75.2*	75.6
	Rural	78.9	78.9	76.3
Dangerous to use heroin	Urban	89.3*	88.9*	88.2
	Rural	86.6	90.2	86.1
Parents strongly/mildly disapprove of beer	Urban	78.0	78.6*	77.8*
	Rural	76.6	75.9	72.5
Parents strongly/mildly disapprove of marijuana	Urban	87.6	87.8	86.4
	Rural	87.0	87.7	83.0

\*Statistically significant at  $p < .05$ .

There was no difference in perceptions about ease of obtaining cigarettes, although rural school students in two of three cohorts indicated it was easier to get smokeless tobacco and that most or all of their friends used cigarettes. Students in urban schools were significantly more likely to think it was dangerous to use tobacco.

Rural students were more likely to report having drunk five or more beers in a setting and to report that when they drank, they usually drank five or more at a time (see exhibit J). They were also more likely to have driven after they had a good bit to drink and to have done so on 4 or more occasions and on 10 or more occasions in the past year.

The pattern of drinking in rural schools is of concern.

**Exhibit J. Patterns of Use of Alcohol and Drugs by Texas Urban and Rural Secondary School Students by Percent: 1998–2003**

Patterns		1998–1999	2000–2001	2002–2003
In past year, ever had 5 or more beers	Urban	38.8*	37.7*	35.1*
	Rural	43.3	44.6	42.0
Average 5 or more beers when drink	Urban	19.4*	19.0*	17.7*
	Rural	24.8	25.8	25.3
Ever drunk on alcohol in class	Urban	10.2	9.5	8.8
	Rural	9.7	8.7	9.3
Ever driven when had good bit to drink	Urban	15.8*	15.5*	15.0*
	Rural	20.9	21.5	19.0
Driven drunk 4 or more times	Urban	4.4*	4.0*	3.9*
	Rural	6.6	6.0	5.3
Driven drunk 10 or more times	Urban	1.9*	1.8*	1.8
	Rural	3.5	2.6	2.3
Ever stoned on marijuana in class	Urban	11.7*	9.6*	10.6*
	Rural	8.5	8.0	7.8
Ever driven when felt high from drugs	Urban	11.8*	10.9	11.7
	Rural	10.0	10.4	7.8
Driven when felt high from drugs 4 or more times	Urban	4.5*	4.3*	4.7
	Rural	3.5	3.3	4.0
Driven when felt high from drugs 10 or more times	Urban	2.7*	2.6*	2.9*
	Rural	1.8	1.8	2.1
Ever high on inhalants in class	Urban	3.4*	2.4*	2.1
	Rural	2.6	1.8	2.0

\*Statistically significant at  $p < .05$ .

There was no difference between rural and urban schools in terms of students ever having been drunk in class (exhibit J), but students in rural schools were more likely to have gotten in trouble with teachers because of alcohol use (exhibit K). Rural school stu-

dents were also more likely to have been in trouble with police because of alcohol use. There was no difference between rural and urban schools in terms of having difficulties with their friends because of their drinking.

**Exhibit K. Problems with Substance Use as Reported in Texas Secondary Rural and Urban Schools by Percent: 1998–2003**

Problems		1998–1999	2000–2001	2002–2003
Ever gotten into trouble with police (alcohol)	Urban	4.2	4.4	4.2
	Rural	5.8*	5.2*	5.8
Ever gotten into trouble with police (illicit drugs)	Urban	2.6	2.3	2.6
	Rural	1.9*	1.5*	1.9*
Ever had trouble with teachers (alcohol)	Urban	1.6	1.5	1.6
	Rural	2.0*	2.1*	2.0
Ever had trouble with teachers (illicit drugs)	Urban	1.7	1.5	1.7
	Rural	1.2*	1.3	1.2
Difficulties with friends (alcohol)	Urban	8.8	8.6	8.5
	Rural	9.1	9.7	8.3
Difficulties with friends (illicit drugs)	Urban	6.0	5.7	6.0
	Rural	4.2*	4.7*	4.2*

\*Statistically significant at  $p < .05$ .

Although urban school students were significantly more likely to report having been high or stoned on marijuana in class, after 1988–1989, there was no difference between urban and rural in terms of getting into trouble with teachers because of use of illicit drugs (see exhibit K). The same pattern was seen with driving while high (exhibit J): after 1998–1999, there was no difference in driving one to three times in the past year while high, and, after 2000–2001, there was no difference in driving while high more than four times. However, urban students continued to report higher rates for driving 10 or more times while high. Urban school students were also more likely to report having been in trouble with the police because of their drug use (see exhibit K). Until 2002–2003, there was no difference in urban and rural schools in terms of parental feelings about youths using marijuana (exhibit I). Consistently across the panels, urban school students were more likely to report they had difficulties with their friends because of their drug use.

Use of inhalants by urban students declined over

the years to the point that there was no difference between urban and rural schools in lifetime or past-month use, getting high on inhalants while in class, or on perceptions of dangerousness of using inhalants by 2002–2003 (see exhibits F, I, and J).

Students were asked if, since school began in the fall, they had sought help from someone other than family or friends for problems in any way connected with use of alcohol, marijuana, or other drugs, and there was no difference between rural and urban schools (see exhibit L). Students were also asked where they would go for help, and there was little difference in the responses from rural and urban schools: most would go to friends.

Additionally, students were asked if they had gotten any information on drugs or alcohol from various sources. Students in rural schools were significantly more likely to report getting information from assembly programs, invited school guests, or some other school source (exhibit L).

**Exhibit L. Sources of Information and Assistance for Texas Urban and Rural Secondary School Students: 1998–2003**

Information Source		1998–1999	2000–2001	2002–2003
Since school began in the fall, have you gotten any alcohol or drug information from:				
Any school source?	Urban Rural	66.4* 70.9	65.2* 69.8	62.9 66.2
Assembly program?	Urban Rural	56.8* 69.5	53.7* 64.8	55.1* 62.7
Invited school guest?	Urban Rural	47.8* 55.7	44.3* 50.2	43.3* 50.6
Health class?	Urban Rural	47.4 48.7	48.3 50.6	46.1 46.8
Since fall, have you sought help, other than from family or friends, for alcohol or drug problem?	Urban Rural	6.3 6.7	6.5 5.9	7.3 7.2
If you had an alcohol or drug problem and needed help, would you				
Go to your friends?	Urban Rural	76.6 76.3	74.3 75.0	73.6 70.8
Go to another adult such as a relative, clergyman or other family friend?	Urban Rural	62.4* 64.8	61.0 62.7	60.6 60.2
Go to your parents?	Urban Rural	59.6 60.6	57.7 59.3	59.2 59.3
Go to a counselor or program in school?	Urban Rural	33.9 36.5	33.8 34.0	31.8 31.1
Go to another adult in school (such as a nurse or teacher)?	Urban Rural	32.5 34.6	31.5* 34.5	31.3 31.5
Go to a counselor or program outside of school?	Urban Rural	41.2 40.8	39.0 37.4	36.3 35.7
Go to a medical doctor?	Urban Rural	38.3 36.7	37.4 34.8	38.3 35.4

\*Statistically significant at  $p < .05$ .

### Treatment Data

Admissions data from TCADA were analyzed for the same three time periods as student data, and the data covered treatment clients who lived in the same rural and urban counties as the secondary school students. Note that the differences in admissions reflect both changing patterns in substance use as well as the opening and closing of programs, which can affect the types of services available for users of different substances.

Clients who lived in rural counties were more likely to be young, married, White or Hispanic, to be first admissions to treatment, to be employed, to have more legal or criminal justice problems, and to have more social and peer problems based on the Addiction Severity Index (ASI) scales (exhibit M). Clients who lived in urban areas were more likely to be Black and also to be homeless.



**Exhibit M. Characteristics of Clients Admitted to Treatment from Texas Rural and Urban Counties by Percent: 1998–2003**

Characteristic		1998–1999	2000–2001	2002–2003
No prior treatment	Urban	44	43	42
	Rural	52*	53*	52*
Married	Urban	22	21	20
	Rural	28*	30*	28*
Male	Urban	65	65	64
	Rural	66	67	65
Injection-use history	Urban	34	35	34
	Rural	35	35	33
Black	Urban	24	21	22
	Rural	9*	9*	9*
White	Urban	49	49	48
	Rural	59*	58*	56*
Hispanic	Urban	27	28	28
	Rural	31*	33*	34*
Employed	Urban	31	30	27
	Rural	36*	36*	33*
Criminal justice/legal	Urban	49	47	49
	Rural	53*	54*	54*
Homeless	Urban	11	13	14
	Rural	4*	4*	6*
On medication at admission	Urban	20	25	22
	Rural	26*	26	19*
ASI sickness/health problems	Urban	31	31	26
	Rural	32	30	25
ASI employment/school problems	Urban	48	51	51
	Rural	50	50	45*
ASI family/marital problems	Urban	49	51	49
	Rural	58*	54*	50
ASI social/peer problems	Urban	31	36	40
	Rural	33*	34*	37*
ASI psychological/emotional problems	Urban	52	55	45
	Rural	60*	57	44
ASI substance abuse problems	Urban	63	61	66
	Rural	67*	62	61*
Average age (years)	Urban	32	33	33
	Rural	31*	31*	30*

\*Statistically significant at  $p < .05$ .

Clients from urban counties were more likely to have problems with heroin or crack cocaine, while rural clients were more likely to have problems with alcohol, marijuana, or methamphetamine (exhibit N). Over time, the proportions of rural clients who had problems with methamphetamine increased significantly

when compared with urban clients, and marijuana admissions, which were higher for urban clients in 1998–1999, became higher for rural clients. The difference in powder cocaine use, which was higher in the rural population originally, disappeared.

**Exhibit N. Primary Drug of Abuse Among Clients Admitted to Treatment from Rural and Urban Counties by Percent: 1998–2003**

Drug/Type of Area		1998–1999	2000–2001	2002–2003
Heroin	Urban	12	12	11
	Rural	6*	6*	5*
Alcohol	Urban	32	33	31
	Rural	44*	37*	33*
Cocaine	Urban	9	8	8
	Rural	10*	9*	8
Marijuana	Urban	17	17	18
	Rural	15*	20*	21*
Crack	Urban	23	20	19
	Rural	14*	11*	12*
Methamphetamine	Urban	4	5	7
	Rural	6*	12*	14*

\*Statistically significant at  $p < .05$ .

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## Rural Drug Abuse in Colorado

*Bruce Mendelson, M.P.A.*

Researchers in Colorado have used a variety of data sources and methods to assess and compare drug abuse patterns and trends in rural and urban areas, including surveys and secondary analyses of social indicator data conducted under the State Substance Abuse Treatment Needs Assessment Program funded by the Center for Substance Abuse Treatment. The survey and social indicator data were collected and analyzed for each of the State's 64 counties. Indicator data included drug arrests, drug-related deaths, and hospital discharges. Alcohol, drug, and (combined alcohol and drug) composite indices were developed

and validated by county using mean rates from 1993 to 1998. Rates were converted to Z-scores and then to 100-point scales. Valuable information about drug production and trafficking was provided by the Drug Enforcement Administration and High Intensity Drug Threat Assessment task force. Ethnographic data were particularly useful in accessing current information about emerging drugs; where, when, and how drugs are used; and the consequences of use. The rural and urban differences in these studies and data sources were explored further for this study.

Colorado is the 8th largest State in square miles but 26th in size of population. In this study, counties with a census-defined metropolitan population of more than 100,000, or a city or census tract (designated place) with a population of at least 50,000 were classified as urban. All other counties were defined as rural. Rural areas are very different (e.g., topography, demographics) across the State. Fifty-six percent of the State's more than 4.3 million population reside in the Denver area. The proportions of the State's population in other planning areas are as follows: Central Mountain, 14.5 percent; Northeast, 12.5 percent; Northwest, 7.0 percent; Southeast, 6.0 percent; and Southwest, 4.0 percent.

The Drug Need Index (DNI), developed from the indicator data, showed that the highest rates of substance abuse were in the Denver Metropolitan and Pueblo areas. The Central Mountain and Northwest areas also had high rates.

Based on the DNI, other studies, and CEWG research and reports, it was determined that treatment data are one of the best drug abuse indicators because these data were readily available, current, and included information about specific drugs used and the types of people who used them. However, it was acknowledged that it is important to understand the limitations of treatment data because the establishment and treatment capacity of programs are based on funding sources and the availability of personnel.

Rates per 100,000 population were developed for the treatment admissions data, and comparisons were made across planning areas. In 2002, primary

methamphetamine admission rates were highest in rural areas, especially in Southeast, Northwest, and Northeast Colorado. Cocaine admission rates were highest in the Southeast and the Denver metro area. Between 1992 and 2002, rates of cocaine admissions declined in the Northwest as they were increasing in the Southeast.

In 2002, marijuana admission rates were greatest in the Southeast and the Northwest, but they increased in all regions from 1992 to 2002. Heroin admission rates remained high in Denver and were also relatively high in Central Mountain and Southeast planning areas.

In reviewing the methods used to assess drug abuse in rural and urban areas and what was learned, the following conclusions are warranted:

- Findings produced from treatment data and DNI data were similar, showing that the Southeast and Denver metro areas had the most serious drug problems.
- Collecting and analyzing multiple indicators Statewide is costly and time consuming.
- Treatment data are easy to access and provide a considerable amount of information. These data can be used to make rural and urban comparisons across State. However, it is important to recognize that these data are skewed by the type and amount of funding available for treatment in each area.
- It is useful to assess resources in relation to problem rates.

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## Substance Abuse Patterns in Plumas County, California

*John Newmeyer, Ph.D.*

This study explored the feasibility of gathering substance use data in the mountainous rural area of Plumas County, California. The largest data source identified was substance abuse treatment programs. Anecdotal reports about health problems and drug seizures also proved useful.

Plumas County, some 50 miles northwest of Lake Tahoe in the Sierra Mountains, has a population of about 21,000. The great majority of residents are

White (88.0 percent); 6.0 percent are Hispanic, 2.5 percent are Native American, and 3.5 percent are of other racial/ethnic groups. The county is attractive to retirees: 18 percent of the population are older than 65. The population annual growth rate is about 0.5 percent.

The average household income in the county is about one-third lower than in the rest of California. However, the homeownership rate is significantly higher than in the rest of California.

Over the past 5 years, about 200 to 250 persons were admitted annually to drug treatment in the county. Approximately 80 percent were primary alcohol users, and 13 percent were primary methamphetamine abusers. Seven percent were treated for problems with narcotic analgesics or other prescription drugs. About 40 percent of treatment referrals were from law enforcement, a reflection of Proposition 36, which mandates treatment for some categories of drug-law arrestees. Notably, the rate of methamphetamine admissions in Plumas County is about the same as that for the San Francisco bay area: roughly 150 per 100,000 population per year. This suggests that there may not be major differences between rural and urban California in some drug abuse patterns, although it is noteworthy that Plumas does not seem to approach the urban areas in terms of cocaine or heroin use.

There were virtually no admissions for abuse of “club drugs.” However, anecdotal reports suggest that county residents leave the area to use these drugs at “raves.”

There were reports of hepatitis C cases in the county, but these are not necessarily the result of injection drug use.

Methamphetamine labs are numerous in rural California. Plumas County apparently has its share of these, as evidenced by a handful of “busts” that have occurred there.

While there are few sources of drug abuse data in this rural county, this exploratory effort showed that it is possible to gain a general idea of drug use patterns from treatment data and anecdotal reports.

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## Monitoring Rural Drug Abuse in Washington State

*Caleb Banta-Green, M.P.H., M.S.W.*

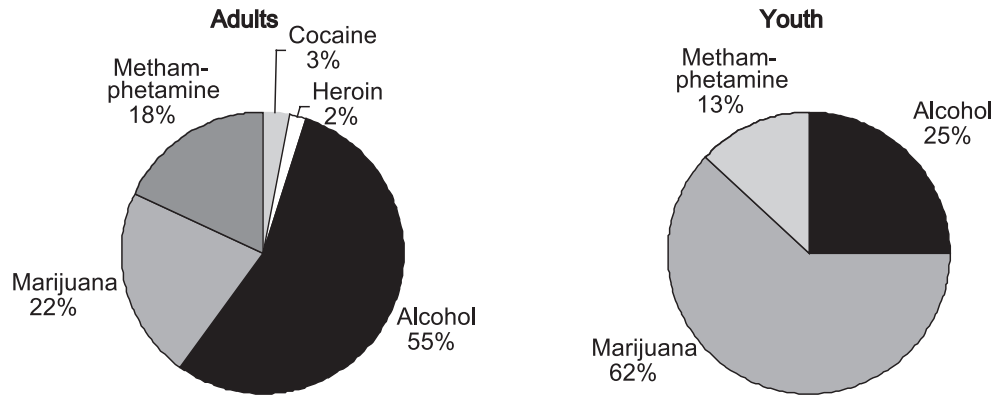
Based on the Community Epidemiology Work Group model, several data sources were accessed and analyzed for a “case study” of rural drug abuse in Clallam County, Washington. Located in the northwest part of the State, the county encompasses 1,739 square miles and has a population of 64,525; 26,000 live in 3 small cities. The population density is 38 per square mile, considerably less than that of King County, Washington (837 per square mile). There are three Indian reservations, and approximately 5 percent of the population in the county are American Indians or Alaskan Natives. The poverty rate among children in the county is one-third higher than in the rest of the State.

There are 14 county substance abuse treatment providers, a provider at a correction facility, an outpatient service for youth, and inpatient and outpatient services for Native American youths and adults. There are no methadone, medical detoxification, or psychiatric emergency programs in the county; access to these services requires a drive of an hour or more. There is a drug court for adults and youth in the county seat of Port Angeles, and there is a tribal drug court in the Northwest corner of the county. There is also a needle exchange program in the county that has operated one evening a week out of a family planning clinic since

June 2000. A juvenile detention center screens arrestees for drug use.

Drug treatment data on admissions to publicly funded programs are maintained by the Washington State Division of Alcohol and Substance Abuse’s Treatment and Report Generation Tool (TARGET) system. The data show that, of the Clallam County treatment admissions in 2001, primary alcohol admissions accounted for 55 percent of the adult and 25 percent of the youth admissions (exhibit O); the proportions for both adult and youth admissions in the county were higher than those for the State overall. Among county youth admissions in 2001, 62 percent were for primary marijuana abuse, as were 22 percent of the adult admissions; again, both of these proportions were higher than the proportions of adult and youth marijuana admissions in the State. Eighteen percent of the adult and 13 percent of the youth admissions in the county were for primary methamphetamine abuse, also higher than the proportions for the State overall. Primary cocaine and heroin admissions among adults in the county were relatively low; they were considerably lower than cocaine and heroin admissions in the State overall. These patterns were consistent from 1997 to 2001.

**Exhibit O. Alcohol and Drug Treatment Clients in Clallam County, Washington, by Percent: 2001**



SOURCE: Division of Alcohol and Substance Abuse, TARGET

Needle exchange program data from January through June 2002 show that 10,177 syringes were exchanged in Clallam County (exhibit P). Staff reported that

approximately 90 percent of the individuals exchanging needles were methamphetamine users.

**Exhibit P. Syringe Exchange Activity in Clallam County, by Number: September 2000–June 2002**

Activity	September 1, 2000–July 10, 2001	January 1, 2002–June 30, 2002
Syringes exchanged	1,177	10,177
Visits (duplicated)	41	66

SOURCE: Clallam County Health and Human Services

Of the 119 juvenile arrestees entering the detention facility in June–July 2002, 81 percent tested positive for one or more drugs. Fifty-nine percent tested marijuana-positive, 42 percent tested methamphet-

amine-positive, 19 percent tested positive for alcohol, and 3 percent tested positive for both marijuana and methamphetamine (exhibit Q).

**Exhibit Q. Drugs Detected Among Youth Admitted to Juvenile Detention, by Number and Percent: June–July 2002**

Drug	Number	Percent
Marijuana	70	59
Methamphetamine	4	3
Marijuana and Methamphetamine	3	3
Alcohol	19	16

SOURCE: Clallam County Juvenile and Family Services

Adult drug court data showed that approximately 80 percent of the cases seen in 2002 involved methamphetamine.

In 2001, 134 calls were made to the Alcohol and Drug Helpline in Clallam County. Most calls from adults involved alcohol. Methamphetamine was the

most common illegal drug mentioned. Of the 134 exposures reported by the poison control center, 106 (79 percent) concerned prescription and over-the-counter drugs (exhibit R). Thirty-seven percent of the 106 calls involved opiates (with oxycodone being the most frequently mentioned), and 12 percent concerned dextromethorphan (DXM).

**Exhibit R. Number of Poison Center Calls in Clallam County, Washington, by Type of Drug: 2001**

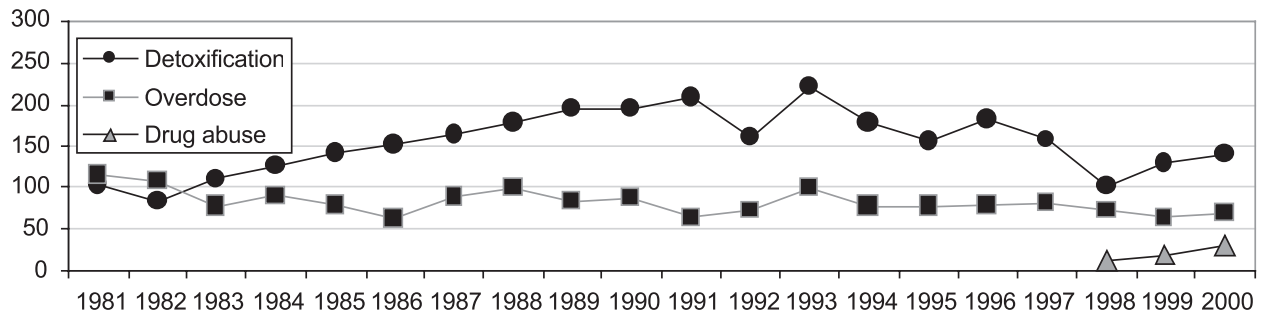
Drug Category/Name	Total Number of Exposures
Prescription (Rx) and Over-the-Counter (OTC) Drugs	106
Antihistamines (Rx and OTC)	23
Opiates (Rx) (oxycodone most common)	39
Dextromethorphan cold and cough preparations	13
Benzodiazepines	14
Other depressants/sedatives	17
Street Drugs	12
Amphetamine (Methamphetamine)	5
Marijuana	3
Cocaine	1
Heroin	1
PCP	2
Subtotal (Street, Rx, and OTC Drugs)	118
Alcoholic Beverages	16

SOURCE: Washington Poison Center

Data from the Olympic Medical Center emergency department (ED) show that ED visits for detoxification peaked in 1993 (exhibit S). However, the length

of stay for psychiatric/detoxification-related visits increased steadily from 1.25 days in 1990 to 7.52 days in 2001.

**Exhibit S. Emergency Department Visits in Clallam County, Washington: 1981–2000**



SOURCE: Olympic Medical Center Emergency Department

The Northwest High Density Drug Trafficking Area and Drug Enforcement Administration reports indicate there have been recent increases in methamphetamine production on Indian reservations. Tribal police cannot arrest non-American Indians and, thus, for example, cannot prevent Mexican Nationals from producing the drug. In 2002, there were 10 seizures of methamphetamine labs and dump sites in Clallam County; in 1999, there were no such seizures.

In conclusion, indicator data can provide much useful information about drug abuse patterns and trends in a basically rural area. Many sources can be utilized for this purpose. The next step will include obtaining and analyzing toxicology data at the county level, conducting interviews with key informants, accessing more detailed treatment data, and assessing State reports that will be released in spring 2004.

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Special Presentations: Substance Abuse Patterns  
and Trends in Georgia

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## Introduction

Researchers and State agency personnel presented information on drug abuse patterns and trends in Georgia from surveys, treatment data, drug seizures and trafficking reports. They also presented data from

special studies on club drugs and drug abuse among addicted mothers and their daughters. The section begins with a summary of findings from surveys and treatment admissions data.

# Drug Abuse Trends in Georgia: Estimates from Treatment and General Populations

*Frederick A. Marsteller, Ph.D.*

### ABSTRACT

*Georgia, the largest State east of the Mississippi River, varies greatly in demography and drug use across geographic regions, as demonstrated by treatment and survey data. Throughout the 1990s, mentions of marijuana as a primary, secondary, or tertiary drug by treatment admissions increased in all regions, and by 2000–2002, was at a high and relatively stable rate. Across an 11-year period, cocaine mentions remained high and stable. They were especially high in metropolitan Atlanta and were lower in the North Georgia region, which is predominantly White. Stimulant mentions increased in the early- to mid-1990s and again in 2000–2002, and they were much higher in North Georgia. While heroin mentions were negligible from 1990 onward, mentions for abuse of pharmaceutical opiates increased greatly in 2000–2002; they were highest in metropolitan Atlanta. Blacks were more than twice as likely as Whites to mention cocaine, Whites were nearly three times more likely to mention opiate abuse, and mentions of stimulant abuse were almost exclusively made by White admissions. In survey data generally, the percentages of past-year use of illicit drugs were higher in 2001–2002 than in the 1996–97 household survey (possibly because of methodological and sampling differences). However, patterns of use were similar across the two surveys: use of illicit drugs was higher among adolescents than adults, and marijuana use was higher than stimulant use, which was higher than cocaine use. The major difference was the large increase in opiate use in the later survey, which was no longer less prevalent than mentions of cocaine and stimulants. Elevated reports of stimulant use by Blacks in metropolitan Atlanta were also a finding in the 2001–2002 survey. Otherwise, the demographic and geographic distribution of drug use in the surveys appears similar to the distributions in the treatment data.*

### INTRODUCTION

#### Area Description

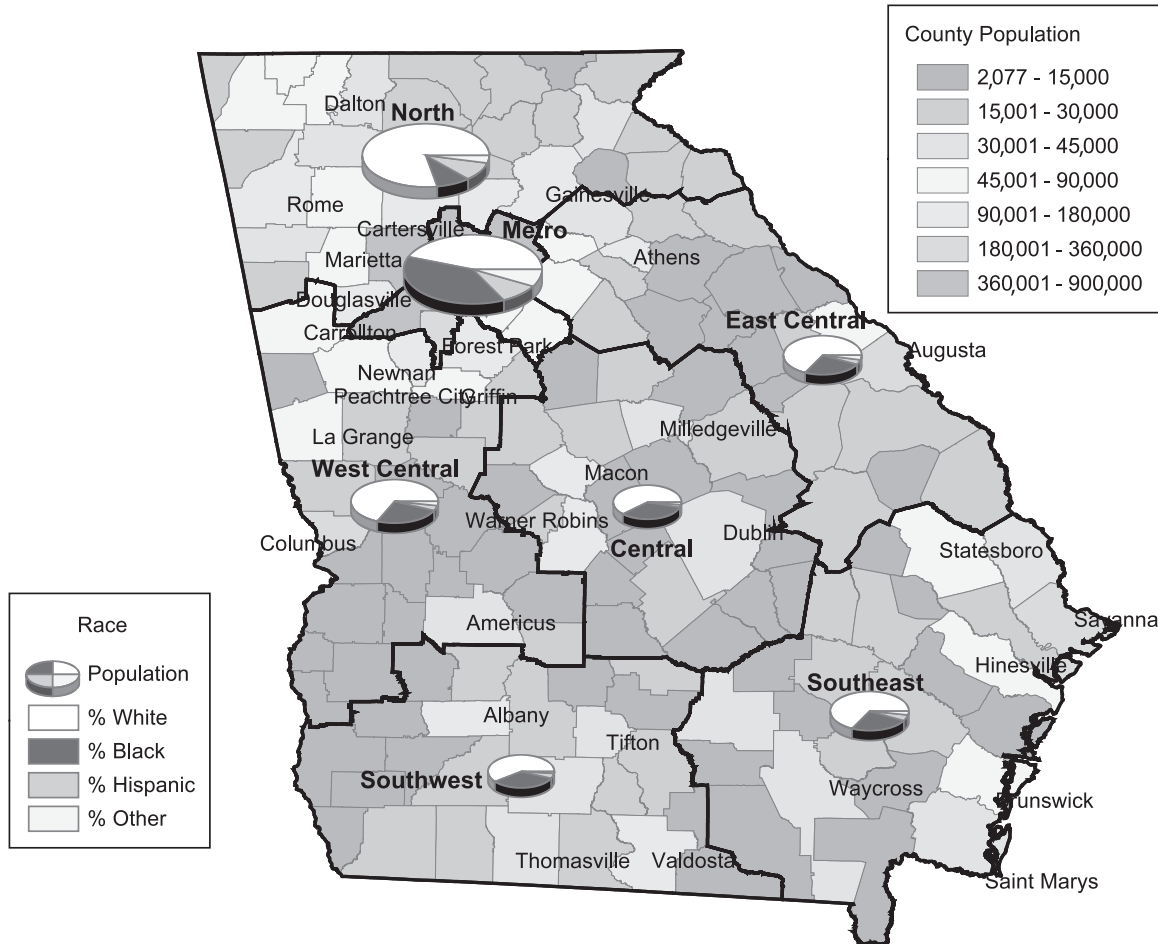
Georgia is the largest State east of the Mississippi River. With an estimated 2003 population of nearly 8.6 million, it ranks ninth in the Nation in population. The northern part of the State is dominated by the southern extent of the Appalachian Mountains and economically is dominated by manufacturing, poultry processing, and timber. The sprawling metropolitan Atlanta area is the predominant center of business and government in the State. Other major urban areas are Albany, Augusta, Columbus, Macon, and Savannah. Outside of Atlanta and the other cities, Georgia is a predominantly rural State, with agriculture, timber and pulp, and kaolin mining (in the East Central region) being the dominant industries. Georgia is also home to 14 military bases, including Fort Benning near Columbus, Fort Stewart west of Savannah, Fort Gordon near Augusta, and Robbins Air Force Base in Warner-Robbins, south of Macon.

For purposes of planning and providing substance abuse treatment services, the Georgia Department of Human Resources has divided the State into seven administrative regions for which separate Treatment Episode Data Set information is presented. The regions are shown on the map in exhibit A, which also shows the substantial geographic variation in demography in Georgia. Among the seven planning regions, the proportion of the population that is Black ranges from 10 percent (North Georgia) to nearly 40 percent (metropolitan Atlanta, Southeast, and Southwest Georgia), and the proportion that is Hispanic ranges from about 2 percent in Central Georgia to 8–9 percent in metropolitan Atlanta and North Georgia. In terms of percentage growth, Georgia had the fastest growing Hispanic population in the country from

2000 to 2002. Nearly one-half of the population is concentrated in the metropolitan Atlanta region. Geographic and demographic variation in patterns of

drug use in Georgia during recent years is the subject of this paper.

**Exhibit A. Georgia's Population by County and Substance Abuse Treatment Planning Region**



**Data Sources**

The following two data sources were used in analyses for this paper:

- **Treatment data** from the Georgia Department of Human Resources were provided by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for the years 1992–2002. The data combine mentions for primary, secondary, and tertiary abuse of selected drugs, as reported by Black and White treatment admissions during each study year.
- **Drug use prevalence data** on the general population in Georgia were extracted from the 2001–2002

Georgia Telephone Household Survey and represent direct estimates of statewide drug use. The 2001–2002 household survey sampled 5,713 adults and 2,138 adolescents. The survey was conducted by the Research Triangle Institute (RTI) of Research Triangle, North Carolina, between May 2001 and January 2002, and provides the most current available estimates of drug use in Georgia’s civilian, non-institutionalized population. It is limited, however, by the lack of estimates for sub state areas such as planning regions and by the fact that the response rate was “poor”: 22.5 percent for adults and 19.3 percent for adolescents. Data from the 2001–2002 survey are compared with findings from the 1996–1997 household survey.

FINDINGS

**Georgia Trends in the Treatment Episode Data Set (TEDS)**

The population represented by the TEDS data consists predominantly of persons who are medically indigent, meet “most in need” criteria established by the State system, and who seek or are mandated to treatment. The racial/ethnic distribution of treatment admissions is mostly proportional to that in the State, given poverty rates. However, during the peak of the “crack” epidemic in the early 1990s, the proportion of Blacks receiving treatment was somewhat elevated. The generally transient decline in treatment numbers during the late 1990s is believed to be related more to administrative reporting changes than to any underlying change in the need for treatment. Although the number of Hispanics and Asians in Georgia grew rapidly during the period between 1992 and 2002, their representation in the public treatment system is disproportionately low. Accordingly, it was not feasible to include them in analyses for this presentation.

The data show that through the 1990s, mentions of marijuana as a primary, secondary, or tertiary drug of abuse increased in all regions of the State, and by 2000–2002, was at a high and relatively stable level.

Cocaine mentions remained high and stable through-

out the 11-year period. They were especially high in metropolitan Atlanta and were lowest in North Georgia, which is predominantly White.

Mentions of stimulant abuse showed increases in the early to mid-1990s and again in 2000–2002. The proportion of stimulant mentions was much higher in North Georgia than in other regions. Mentions of heroin were negligible throughout the period, but mentions of abuse of pharmaceutical opiates increased greatly during the 2000–2002 period, with the highest rates being in metropolitan Atlanta.

Much of the geographic variation in mentions of drugs by treatment admissions is attributable to racial/ethnic distribution (exhibit B). Blacks were more than twice as likely to mention cocaine as Whites, Whites were nearly three times as likely as Blacks to mention abuse of opiates, and mentions of stimulant abuse were almost exclusively made by Whites. Log-linear models of the counts showed that region, race, and their interaction all contributed significantly ( $p < .001$ ) to the proportion of use of each of these drugs. However, for marijuana, the largest contribution to the total chi-square statistic was region, for cocaine and stimulants, it was race (by tenfold for cocaine and six-fold for stimulants). The three terms—race, region, and interaction—contributed approximately equally to the variation in mentions of opiates.

**Exhibit B. Percentages of Treatment Admissions in Georgia with Any Mention of Selected Drugs, by Race: 2003**

Drug	White	Black
Marijuana	28.9	35.8
Cocaine	26.5	61.2
Stimulants	11.4	0.4
Opiates	8.5	3.0

SOURCE: OAS, SAMHSA

**Prevalence of Drug Use in the Household Populations**

In general, percentages of past-year use of illicit drugs in the household population were somewhat higher in the 2001–2002 survey than a similar one conducted in 1996–1997, although differences may reflect meth-

odological and sampling differences more than actual changes in the drug of use. In 2001–2002, use of illicit drugs by adolescents (age 12–17) (exhibit C) was higher than for adults (exhibit D). Among adolescents, marijuana use was higher than opiate use, which was higher than methamphetamine use.

**Exhibit C. Estimated Past-Year Use of Selected Drugs by Adolescents in the Georgia Household Population by Race/Ethnicity and Percent: 2001–2002**

Drug	White	Black	Hispanic	Other
Marijuana	9.3	10.2	12.6	6.8
Opiates	6.1	5.3	7.7	3.8
Cocaine	0.7	0.0	5.9	0.0
Methamphetamine	2.6	0.4	2.0	1.0

SOURCE: RTI

**Exhibit D. Estimated Past-Year Use of Selected Drugs by Adults in the Georgia Household Population by Race/Ethnicity and Percent: 2001–2002**

Drug	White	Black	Hispanic	Other
Marijuana	6.3	9.2	2.1	5.3
Opiates	4.0	4.4	8.4	3.7
Cocaine	1.1	2.1	1.6	2.7
Methamphetamine	1.7	0.8	0.2	0.8

SOURCE: RTI

The major difference between the 1996–1997 and 2001–2002 surveys was the large increase in mentions of opiate use in the later survey. Reported opiate use was lower than reported use of cocaine and stimulants in 1996–1997 and higher than both in 2001–2002. Elevated reports of stimulant use by adult Blacks in the metropolitan Atlanta area were also found in the

2001–2002 survey (exhibit E), a result the author has not seen in any other Georgia data. Otherwise, the demographic and geographic distribution of drug use in the survey results appears to be similar to that in the TEDS data, which supports the view that, in Georgia, both geography and demography contribute to substantial variation in local patterns of drug use.

**Exhibit E. Adult Drug Use in the Georgia Household Population by Drug, Race, Survey Sampling Stratum, and Confidence Intervals: 2001–2002**

Race		North Rural	Metro Atlanta	Other Urban	South Rural
Marijuana	White	5.7 ± 1.0	7.3 ± 1.2	7.2 ± 1.4	5.3 ± 0.9
	Black	11.2 ± 5.5	11.9 ± 2.1	4.5 ± 1.5	7.6 ± 2.0
Cocaine	White	1.2 ± 0.5	1.5 ± 0.6	0.7 ± 0.5	0.6 ± 0.4
	Black	0.0 ± 0.0	3.8 ± 1.5	0.5 ± 0.5	0.9 ± 0.9
Methamphetamine	White	1.4 ± 0.5	2.3 ± 0.7	1.6 ± 0.7	1.4 ± 0.5
	Black	0.0 ± 0.0	1.4 ± 0.7	0.5 ± 0.4	0.2 ± 0.2
Opiates	White	3.8 ± 0.7	4.1 ± 0.9	4.0 ± 1.0	4.0 ± 0.8
	Black	2.5 ± 1.5	4.3 ± 1.2	2.9 ± 0.9	5.9 ± 1.7
Sample Size	White	1,042	837	690	1,215
	Black	78	349	390	375

SOURCE: RTI

## Conclusions

Several indicators in both the TEDS and survey data indicate that the major emerging drugs of abuse in Georgia are stimulants, presumably dominated by methamphetamine, and pharmaceutical opiates. Use of marijuana and cocaine, however, remains high, although the annual TEDS data may indicate that marijuana use has peaked and cocaine use is declining from the highs in the early to mid-1990s. Stimulant use is, and has been, highest among Whites and is

higher in the North Georgia region than in the rest of the State. Off-label use of pharmaceutical opiates appears to be equally high in all racial/ethnicity groups and areas of the State.

## Acknowledgements

Thanks are extended to Deborah Trunzo of OAS and Jim DeLozier of Synectics, who completed a difficult request for TEDS/DASIS data in record time.

*For inquiries concerning this report, please contact Frederick A. Marsteller, Ph.D., Behavioral Research Consulting, Inc., 511 Creekview Drive, Stone Mountain, GA 30083, Phone: 404-508-9760, Fax: 404-508-9119, E-mail: fred@behav.com.*

# Forensic Testing Results in Georgia: Cautions and Benefits of This Drug Indicator

*Mark D. Burns*

## INTRODUCTION

The Division of Forensic Sciences (DOFS), Georgia Bureau of Investigation (GBI), is comprised of the Atlanta Headquarters (HQ) laboratory and six regional labs that report to the National Forensic Laboratory

System. Items seized and submitted are reported, by drug category, for the HQ and six regional areas depicted in the map below (exhibit F). Data presented in this paper, by area, are for fiscal years (FYs) 2000 through 2003. Because of the backlog of cases in some locations, there are drops in the values for FY 2003.

## Exhibit F. Georgia Bureau of Investigation, Division of Forensic Sciences, Service Territory

1. HQ (Atlanta)
2. Eastern
3. Western
4. Central
5. Southwestern
6. Coastal
7. Northwestern



SELECTED RESULTS

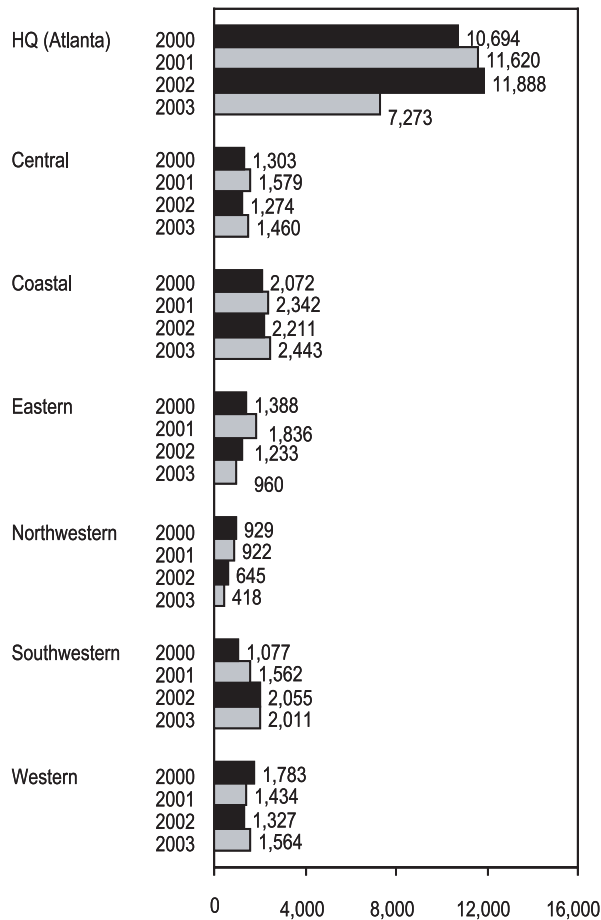
**Cocaine**

Over the past 4 fiscal years, the cocaine values from DOFS labs have remained relatively stable (excluding

the phenomenon of backlogged cases in FY 2003). They continue to be highest in the more urbanized HQ (Atlanta) area, as shown in exhibit G.

In most areas and years, the numbers of cocaine items analyzed were the highest for any drugs.

**Exhibit G. Trends in Cocaine Values: FY 2000–FY 2003**



SOURCE: DFS, GBI

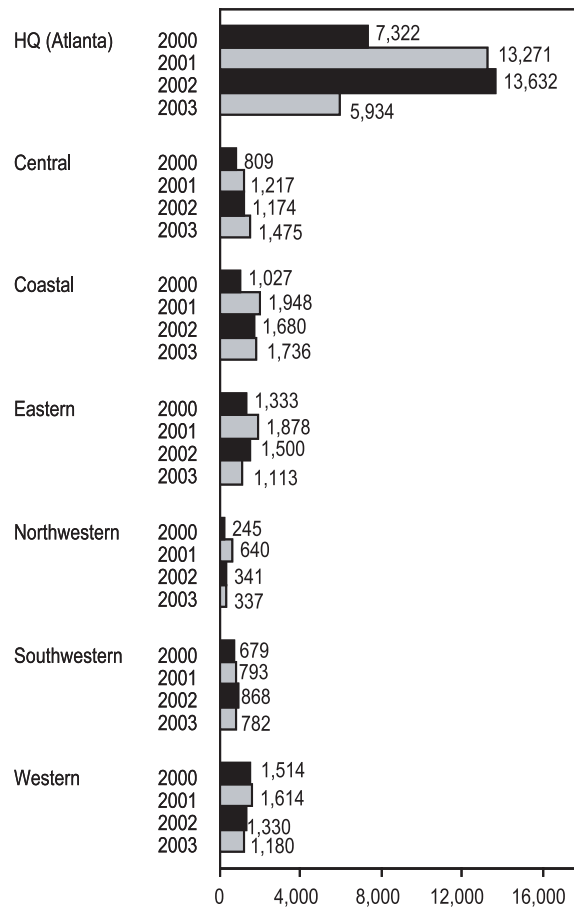
**Marijuana**

Like cocaine, marijuana values remained relatively constant from FY 2000 to FY 2003 (excluding back-

logging). The numbers of items analyzed were particularly high in the Atlanta area and were lowest in the northwestern area (exhibit H).



**Exhibit H. Trends in Marijuana Values: FY 2000–FY 2003**



SOURCE: DFS, GBI

**Methamphetamine**

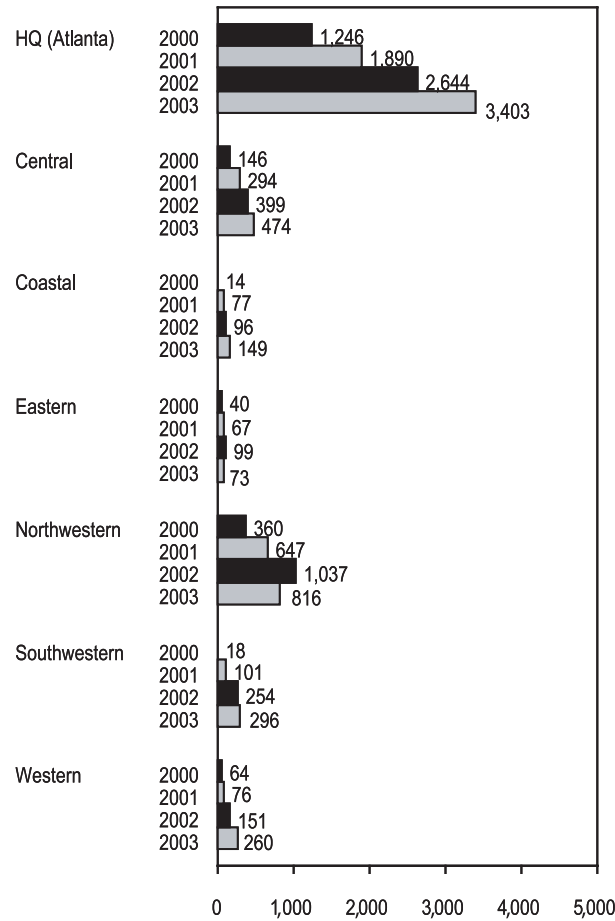
A dramatic yearly increase in methamphetamine cases has occurred in all seven areas of the State (exhibit I).

While the number of cases in some areas is relatively small, the percentage increase from FY 2000 to FY 2003 is very high. The percentage increases from FY 2000 to FY 2003 are shown below in rank order.

Area	Percent
Coastal	964
Western	306
Central	225
HQ (Atlanta)	173
Southwestern	154
Northwestern	127
Eastern	82

There has also been a rise in clandestine methamphetamine labs across the State, a factor that likely influences the rise in laboratory cases.

**Exhibit I. Trends in Methamphetamine Values: FY 2000–FY 2003**



SOURCE: DOFS, GBI

**Heroin**

Heroin values were of significance only in the HQ (Atlanta) area, ranging from 214 in FY 2000 to 254 in

FY 2002, with 140 cases in FY 2003. The next highest number in any year in the other 6 areas was 31 in FY 2001 in the Coastal area, as can be seen in exhibit J.

**Exhibit J. Trends in Heroin Values in 6 Georgia Areas: FY 2000–FY 2003**

Area	2000	2001	2002	2003
Central	6	23	5	18
Coastal	16	31	5	23
Eastern	24	18	12	18
Northwestern	11	6	1	4
Southwestern	4	21	12	4
Western	9	13	6	8

SOURCE: DOFS, GBI

## Hydrocodone

Trends in hydrocodone cases suggest a higher incidence of abuse of this drug. The number of cases tended to exceed those for heroin, as can be deduced

from exhibit K. Further, the values increased from FY 2000 to FY 2003 in all areas, with the percentage of increase being 200 to 288 in the Eastern, Southwestern, and Coastal areas.

**Exhibit K. Trends in Hydrocodone Values and Percent Increase from 2000 to 2003: FY 2000–FY 2003**

Area	2000	2001	2002	2003	% Change 00–03
HQ (Atlanta)	163	236	246	210	29
Central	54	47	56	70	30
Coastal	17	37	67	66	288
Eastern	10	11	16	30	200
Northwestern	41	88	82	42	<1
Southwestern	15	18	73	51	240
Western	13	14	13	25	92

SOURCE: DOFS, GBI

## Oxycodone

While oxycodone values were lower than those for hydrocodone in most areas across the 4 fiscal years, the percentage increases from FY 2000 to FY 2003

were much higher in all areas, with increases ranging between 567 and 822 in the Southwestern, Western, and Coastal areas (exhibit L). As with other drugs, the number of cases is highest in the HQ (Atlanta) area.

**Exhibit L. Trends in Oxycodone Values and Percent Increase from 2000 to 2003: FY 2000–2003**

Area	FY 2000	FY 2001	FY 2002	FY 2003	% Change 00–03
HQ (Atlanta)	42	109	135	164	290
Central	24	42	78	65	171
Coastal	10	22	102	92	822
Eastern	0	10	14	23	230
Northwestern	15	59	52	44	193
Southwestern	3	8	17	20	567
Western	3	12	15	23	667

SOURCE: DOFS, GBI

## Gamma Hydroxybutyrate (GHB)

GHB cases ranged from zero to five in areas outside the HQ (Atlanta) area over the years, showing declining trends. The same trend applies to the HQ area, where there were 50 cases in FY 2000, 27 in FY 2001,

8 in FY 2002, and 4 in FY 2003. Drugs associated with GHB (gamma butyrolactone and butanediol) are not charted in the DOFS system.

CAUTIONS AND BENEFITS IN USING FORENSIC DATA

Forensic data can be a useful indicator in determining drug trends within a State and smaller geographic areas within that State. The forensic results can be used together with other drug abuse data in surveillance and prediction efforts. However, several factors need to be considered in using forensic data. Testing demands vary from facility to facility, depending on

the overall structure of the testing operation within a State. The data generated by forensic laboratories are intended to support a State’s judicial system. The items tested may depend on the operational policies and available staff at each facility, factors that may differ from State to State. Despite these factors, forensic data can be a beneficial augmentation in predicting drug trends if appropriate considerations are given to use of the data.

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## Atlanta DEA Trafficking and Seizure Data

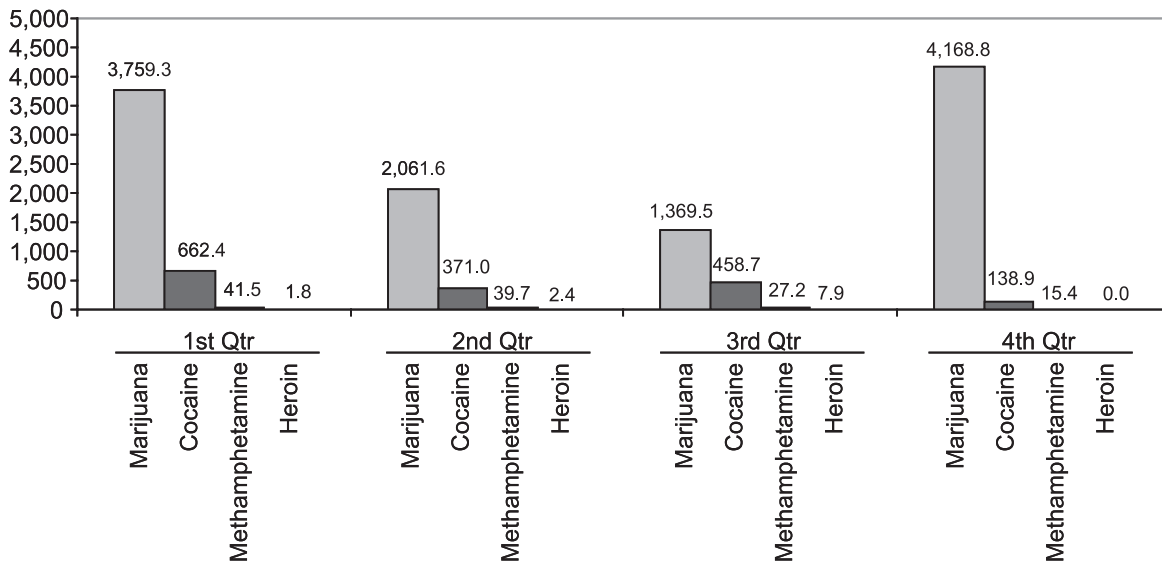
*James W. Beeks, Sr., M.P.A.*

Mexican drug trafficking organizations (DTOs) are the primary wholesale distributors of most illicit drugs available in Georgia, including marijuana, cocaine, methamphetamine, and heroin. Most often, these drugs are transported into Georgia in vehicles through State highways.

gram supported by the El Paso Intelligence Center (EPIC), receives reports of drug seizures from State and local law enforcement agencies. The Georgia seizures reported to OP in 2002 included 11,359 kilograms of marijuana, 1,631 kilograms of cocaine, 124 kilograms of methamphetamine, and 12 kilograms of heroin (exhibit M).

Operation Pipeline (OP), a highway interdiction pro-

**Exhibit M. Operation Pipeline Drug Seizures (in Kilograms), by Drug and Quarter: 2002**



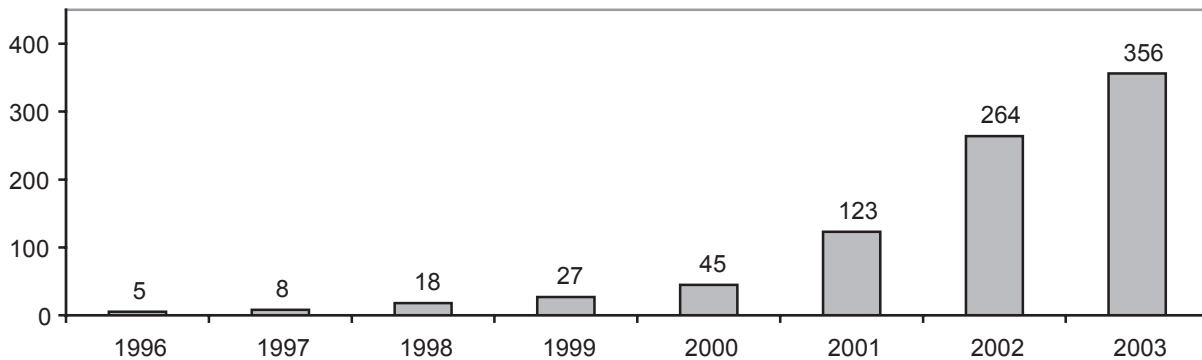
SOURCE: DEA EPIC

Most marijuana available in Georgia is produced in Mexico, although some is grown locally or in neighboring States. Criminal groups and independent dealers cultivate large quantities of cannabis in areas throughout the State.

Most of the methamphetamine available in Georgia is produced in Mexico and California and transported by Mexican DTOs. Seizures of clandestine laboratories producing methamphetamine in Georgia

increased dramatically from 5 in 1996 to 356 in 2003 (exhibit N). High costs and serious problems have been encountered from the clandestine labs used to produce methamphetamine. There are 16 pounds of waste for every pound of methamphetamine produced. Apartments, yards, and dumpsters have been contaminated with chemical waste. Children who live in the houses where methamphetamine is made are at high risk for exposure to dangerous chemicals and to accidents that occur in labs.

**Exhibit N. Number of Clandestine Lab Seizures in the State of Georgia: 1996–2003**



SOURCE: DEA

Commercial and private vehicles are used by Mexican groups to transport cocaine to Georgia. Cocaine dealers also travel to distribution hubs (e.g., Houston, Miami, Los Angeles, and New York City) to purchase large quantities of cocaine. Most of the powder cocaine is converted to crack (“rocks”) prior to distribution to local African-American and other criminal gangs/groups. Crack, readily available in the Atlanta metropolitan area, is generally sold in plastic bags and vials.

Most of the heroin in Georgia is produced in South America, but some “Mexican brown” comes directly from Mexico. The primary retail distributors of heroin in Georgia are African-American and Mexican criminal groups and local dealers. Heroin is now more available in Atlanta than in the early 1990s, and purity levels (40–50 percent) are relatively high.

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## Club Drug Trends in Atlanta

*Kirk Elifson, Ph.D.*

A number of methodological issues need to be considered in assessing drug abuse. Traditional data sources do not capture the complexity of drug abuse patterns (e.g., the reasons for using one or more drugs, the context of use, and use trajectories), and surveys and traditional indicator data are slow in identifying trends. Drug users are often unaware of the exact con-

tent of substances they purchase and use. Constant ethnographic monitoring is required to better identify emerging drug problems and trends.

In an ongoing study in Atlanta, current and emerging drug trends in the club drug scene are being examined. Attention is focused on indicator data from a

variety of sources and observations in settings where the drugs are used. Preliminary findings show that three drugs—heroin, methamphetamine, and MDMA (ecstasy)—are emerging in the latest club drug scene.

The study team obtains one perspective by analyzing the DAWN emergency department (ED) data for the Atlanta area. The most recent DAWN report shows a significant increase in heroin ED mentions from 2000 to 2001 but a decrease to 763 mentions in 2002, a number still much higher than in 1994–2001. Methamphetamine ED mentions fluctuated from 1994 to 2002, but they increased significantly from 109 in 2000 to 240 in 2002. MDMA ED mentions, which were fewer than mentions for other major drugs, increased significantly from 2000 to 2001. However, they then decreased significantly from 2001 to 2002, when they numbered 118.

ED patient demographic characteristics differed for these three drugs. In 2002, mentions by male patients exceeded those for females and increased significantly for each drug. Nearly 57 percent of the heroin ED mentions represented African-American patients, compared with only 20 percent of the methamphetamine group and nearly 47 percent of the MDMA group. MDMA patients were younger than heroin or methamphetamine groups, with only 9 percent being age 35 or older, compared with nearly 12 percent of the methamphetamine group and 56 percent of the heroin group.

Statewide police laboratory forensic drug data reported by the Georgia Bureau of Investigation show dramatic increases in methamphetamine cases/items from 2000 to 2002 in all areas of the State. In 2002, 13,632 methamphetamine cases were identified in the Atlanta metropolitan area, compared with only 254 heroin cases and no more than 12 in each of the other 5 regions.

Ethnographic data indicate an increase in heroin use among adult men and women between the ages of 20

and 25, along with diverse patterns of use. Heroin use may be as prevalent among White men as among their African-American counterparts.

Methamphetamine use has become more prevalent in African-American and Hispanic populations in Atlanta. Like heroin, the drug is administered in a variety of ways; no route of administration dominates. Methamphetamine abuse is a problem in rural as well as urban areas, although its use with other drugs is more common in urban areas.

Ethnographic research on MDMA use has traditionally focused on use at raves and dance clubs. Most MDMA users are middle or upper class adolescents or young adults. The settings in which MDMA is used include traditional and new raves, gay clubs, hip-hop clubs, low-income neighborhood bars, and private homes. The use settings are not mutually exclusive. Users may participate in different settings, but a set of norms and values usually influences patterns and behaviors.

Future ethnographic research will examine MDMA use in the context of polydrug abuse. Mental health issues and implications of “overuse” will be explored. Attention will also be given to the behaviors (e.g., unprotected sex and injection drug use) that place ecstasy users at risk for HIV/AIDS. A number of factors will be considered in studying current and emerging drug trends in the club drug scene including the following:

- Shifts in the settings in which the drugs are used
- The complex diffusion system of knowledge regarding ways (e.g., routes of administration) of using the drug
- The role that markets and availability play in the drugs and drug combinations used

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## Drug Abuse Patterns Among Latino Clients Entering Treatment

*Pierluigi Mancini, Ph.D.*

The Clinic for Education, Treatment, and Prevention of Addiction, Inc. (CETPA) is the only Latino substance abuse treatment agency licensed by the Georgia Department of Human Resources. From 2001 to

2003, the outpatient program served an average of 80 adult and 63 adolescent patients. Eighty-four percent of the adults and 67 percent of the adolescents were male. One-half of the adult patients identified them-

selves as indo-Latinos, indicating they felt had a close connection to the indigenous roots of their ancestors.

CETPA made an effort to assess changes in drug use patterns of immigrant Latino patients as they became more acculturated in the United States. It was learned that the longer patients lived in this country, the more likely they were to use multiple substances. There was a dramatic difference in drug abuse patterns in adult and adolescent patients admitted in 2001 and 2002 and those admitted in 2003. Of the adult patients admitted to treatment in 2001–2002, 54 percent reported alcohol as their only drug of choice, 27 percent reported cocaine, and 19 percent reported marijuana. Polydrug abuse was much more common among patients admitted in 2003. In 2003, most adult

patients mentioned more than one drug of choice: 62.5 percent mentioned cocaine and 75.0 percent mentioned marijuana. Methamphetamine and crack were each mentioned by 12.5 percent of the adult admissions, and heroin and amphetamines were each mentioned by 6.2 percent.

Adolescent patients entering treatment in 2003 were more likely to mention cocaine as a drug of choice than in 2002 (75 vs. 63 percent). All adolescents entering in 2003 reported using marijuana and alcohol, and 75 percent indicated they used amphetamines. In addition, 12.5 percent reported using heroin and 12.5 percent indicated they used hallucinogens. The number and types of drugs mentioned were associated with length of stay in the United States.

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## Being an Addict, Being a Mother

*Claire E. Sterk, Ph.D.*

This ethnographic study, designed to explore relationships between drug-abusing mothers and their adult daughters, is being conducted in communities selected through ethnographic mapping by outreach workers and ethnographers. The objectives are to use family therapy theory to explore relationships between mothers and daughters and to present the mother-daughter relationship from the perspective of both the mothers and daughters using a phenomenological approach. The mother-daughter dyads represent 30 drug-using mothers and 30 daughters, with the daughters being evenly divided between those who had used an illicit drug at least once in the prior 6 months and those who had never used an illicit drug. Targeted sampling was used to achieve equal representation of drug-using and non-using daughters; chain referral sampling with women enrolled in the study was also used. Only women with no cognitive impairments and who were not in an institutional setting (e.g., jail) or drug treatment were eligible for the study. Nearly 88 percent of the mothers were African-American, as were around 90–91 percent of the daughter groups. The mean age of the mothers was 44; the mean ages of the drug-using and non-using daughters were 25 and 22, respectively. One-quarter of the non-using daughters were employed full-time, compared with only 2.0 percent of the mothers and 4.4 percent of the drug-using

daughters. Most daughters had minor children, as did 12.5 percent of their mothers.

Information from these women was obtained through in-depth life history interviews, observations in a number of home environments and mother-daughter interactions, and focus groups. Awareness of drug use among mothers and daughters was quite high, as reflected in the following findings:

- Nearly 92 percent of the drug-using daughters knew their mothers used drugs, as did nearly 78 percent of the non-using daughters.
- Three-quarters of the mothers knew their drug-using daughters used drugs.

The mean generational age distance between mothers and daughters was 15.5 years, below the typical age (25–32) difference in the general population. The generational age distance between study mothers and their daughters did not differ by the daughters' drug-using status. The condensed family structure led to challenges, with mothers and daughters acting in ways that are inconsistent with typical generational positions in a family, such as the following:

- Non-using daughters tended to be 2.6 years older than using daughters were when they had their first child, resulting in slightly more generational blurring among the latter.
- The condensed age structure accelerated life courses, with mothers becoming grandmothers at a young age, and daughters becoming mothers when they were often not legally or developmentally adults.
- The premature shifting of life course stages appeared to result in mothers and daughters acting more like siblings than like parent and child.

Data on household composition indicated that non-using daughters were more likely to be the oldest child; that mothers and drug-using daughters tended to reside in different households; that mothers frequently lived with their non-using daughters who served as the main caretaker while the mother assisted with child care; that conflict was most common in households where multiple substance abusers resided; and that few women grew up with both biological parents.

Maternal substance abuse prior to the daughter's birth and during infancy had a number of effects. Daughters whose mothers used prior to their birth grew up in a chaotic household. Non-using daughters were more likely than their drug-using counterparts to seek support from adults outside the household. Mothers who used drugs prior to birth or in their daughters' infancy

reported more role strain than those who started using drugs when the daughters were older.

Daughters whose mothers began drug use when the daughters were in their childhood years described those early years as chaotic and filled with trauma. Although some non-using daughters distanced themselves from their mothers when they reached adolescence, others began to engage in role reversal.

Non-using daughters reported higher levels of solidarity with their mothers than drug-using daughters—they interacted more frequently and shared “quality time.” Daughters in both groups reported lower levels of consensual solidarity (e.g., shared values, norms, ideology) than the mothers, with non-using daughters reporting the highest levels, followed by daughters whose mothers began using drugs when they were older. Overall, mothers had more positive perceptions of closeness with their daughters; mothers who experienced more guilt, shame, and role strain had the most positive view.

There are, of course, limitations in this study, including the small sample sizes, the fact that it was limited to mothers and daughters, and that the findings are based primarily on self-report. There are strengths as well: interviews were conducted with both mothers and daughters, the sample was a non-institutional one, and data collection involved both quantitative and qualitative methods.

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Special Presentations: The Centers for Disease  
Control and Prevention

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## Youth Risk Behavior Surveillance System Drug Use Data

*Nancy D. Brener, Ph.D.*

The Youth Risk Behavior Surveillance System (YRBSS) monitors six categories of health-risk behaviors among youth and young adults. The system includes a national school-based Youth Risk Behavior Survey (YRBS), as well as State, territorial, and local school-based YRBSs conducted by education and health agencies. The national YRBS has been conducted every other year since 1991, and 2003 data are expected to be available in June 2004.

In the 2001 national study, approximately 42 percent of the students had used marijuana in their lifetime, and 24 percent had used it in the 30 days prior to the survey. These were lower than the percentages reported for marijuana use in 1999. Nationwide, 9 percent of the students had used some form of cocaine (e.g., powder, crack) in their lifetime, and 4 percent had done so in the past 30 days.

In 2001, each State and local school-based YRBS used a two-stage cluster sample design to produce representative samples of students in grades 9–12 within their jurisdictions. Nineteen cities conducted a local YRBS in 2001, including 16 CEWG areas/cities. Student drug use data from 11 CEWG areas in 2001 are shown in exhibit A.

As shown in exhibit A, Chicago had the highest proportion of students who ever used (49.3 percent) or currently used (28.7 percent) marijuana. Dallas and Los Angeles had the highest proportions of students who ever used cocaine (each around 10 percent) and who currently used the drug (5.2 and 5.9 percent, respectively). Students in San Diego (8.4 percent) and Los Angeles (7.6 percent) were more likely to report ever using methamphetamine than students in the other nine CEWG cities represented in exhibit A.

**Exhibit A. Percentages of High School Students Who Ever Used and Currently Use Marijuana, Cocaine, or Methamphetamine in 11 CEWG Areas: 2001**

Area	Marijuana		Cocaine		Methamphetamine
	Ever Used	Current Use	Ever Used	Current Use	Ever Used
Boston	40.1	21.7	3.6	N/A <sup>1</sup>	3.5
Chicago	49.3	28.7	4.4	2.6	2.8
Dallas	43.5	20.4	10.4	5.2	5.4
Ft. Lauderdale	40.8	21.8	7.2	2.6	5.6
Houston	40.7	20.4	8.9	4.3	6.0
Los Angeles	41.2	22.5	10.1	5.9	7.6
Miami	31.9	17.0	8.1	4.0	4.8
New York	34.4	17.8	2.6	1.2	2.8
Philadelphia	42.7	21.4	2.6	1.3	4.6
San Diego	41.8	22.5	8.8	3.8	8.4
San Francisco	33.6	18.3	5.9	N/A	4.6

<sup>1</sup>N/A=Data not available

SOURCE: YRBSS, CDC

The YRBS city data can be obtained by contacting school districts directly. The YRBS Surveillance Summary containing 2003 data is scheduled to be released in June 2004. The 2003 YRBS cities that have weighted data include Boston, Dallas,

Detroit, Los Angeles, New Orleans, New York City, Philadelphia, and San Diego. The unweighted sites include the District of Columbia, Houston, San Bernardino, and San Francisco. The YRBSS Web site is: <[www.cdc.gov/yrbss](http://www.cdc.gov/yrbss)>.

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# A National System for HIV Behavioral Surveillance in the United States

*Abu S. Abdul-Quader, Ph.D.*

## INTRODUCTION

The Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention (CDC), operates a national system of HIV behavioral surveillance. By 2004, the system will include 26 cities in the United States and San Juan, Puerto Rico. Twenty-two of the cities are among those covered in CEWG reports.

The system is ongoing and systematic. The data are used for epidemiological monitoring, program planning, and program evaluation, with a focus on behaviors related to the events under surveillance. Populations that are monitored are the general population, at-risk populations, and infected populations.

## OBJECTIVES

The objectives of this HIV behavioral surveillance system are as follows:

- To assess risk behaviors among a representative group of persons at high risk for HIV infections
- To assess HIV testing behaviors
- To assess exposure to, use of, and impact of prevention services
- To follow trends over time

## METHODS/STRATEGIES

The monitoring is conducted in 12-month cycles with different populations using different sampling methods. The following populations will be sampled over time in the same metropolitan statistical areas (MSAs): men who have sex with men (MSM), injection drug users (IDUs), and high-risk heterosexuals (HRHs). Eligibility requirements are that the person be older than 18 and a resident of the MSA. Each cycle covers 500 persons in each MSA.

A standardized questionnaire is used to assess behavioral risks for HIV, HIV testing, and exposure to and use of prevention programs.

## Strategy for the IDU Component

In this surveillance effort, a study will be conducted to examine the feasibility of respondent-driven sampling (RDS) for recruiting a representative sample of IDUs. A number of questions will be addressed through this study. They are:

- Can RDS yield large samples of IDUs for surveillance in a large city?
- Can a set of “seeds,” or initial recruited respondents, from a small geographic area be used to recruit diverse groups of IDUs from a broad geographic area?
- Can RDS be used to recruit large numbers of IDUs with minimal direct formative research preceding implementation?
- Will RDS respondents obtained from chains initiated among needle exchange users differ markedly from respondent chains recruited elsewhere?
- Does RDS lead to equilibrium in terms of distribution of race, gender, and risk behaviors after a certain number of waves, regardless of the race and gender of the seeds?

Pilot projects will be conducted in multiple sites using both RDS and targeted sampling to examine feasibility of recruiting representative samples of IDUs. The following questions will be addressed:

- Can a representative sample of IDUs be recruited by using any of the two sampling strategies?
- How much time and effort is needed to recruit a certain number of IDUs?
- What are the similarities and differences between IDUs recruited by different sampling strategies?
- What are the challenges of using a particular strategy as well as a combination of strategies for recruiting IDUs?

Other activities related to the IDU behavioral surveillance are summarized below:

- To conduct formative research to identify settings and select prevention programs for inclusion in survey
- To identify and select a sampling strategy
- To develop a surveillance protocol
- To develop a survey instrument for data collection
- To conduct training on the sampling strategy and data collection

There are a number of special issues that need to be considered in relation to the implementation of IDU behavioral surveillance:

- Illegal activities among IDUs
- Interviewer safety concerns
- Venues being difficult to identify
- Venues that change frequently
- Representativeness of the sample (i.e., being out of treatment versus in treatment)
- The fact that the need for drugs or effect of drugs may affect the IDU's ability to consent or to respond to the questionnaire

### Assessing Prevention Programs

This study component is based on a consumer survey approach. The programs will be selected in coordination with local AIDS programs, with a focus on programs funded by CDC and/or State and local health departments. Criteria for program inclusion are that a program serve the target population, be located in a target geographic area or venue, and the type of intervention and investment in the program.

In assessing the prevention programs, a major question to be addressed is whether the program is reaching the intended audience. Questions about specific programs will focus on their recognition in the target population, the population's ability to access the program, knowledge and use of services, and the program's effects on target behaviors.

### Challenges to Implementation

There are a number of challenges in implementing this surveillance system, including the following:

- Sustainability of the effort
- Finding and sampling "hidden" populations
- Defining "high-risk" heterosexuals
- The lack of good models for sampling of high-risk heterosexuals

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## The Epidemic Intelligence Service and Poisoning Activities of the National Center for Injury Control and Prevention

*Dan Budnitz, M.D., M.P.H.*

The Epidemic Intelligence Service (EIS), a 2-year postgraduate fellowship program, provides on-the-job training for health professionals interested in applied epidemiology. Currently 65–75 trainees are enrolled annually.

To qualify as an EIS Officer, physicians must have at least 1 year of clinical training. Veterinarians, nurses, and dentists must have a master's degree in public health. Epidemiologists, statisticians, and other sci-

entists (nutritional, behavioral, social) who have doctoral-level training also qualify.

The mission of EIS is to respond to requests for epidemiological assistance related to prevention, disease and injury control, health promotion, and capacity building. One recent EIS investigation focused on an increase in unintentional poisoning deaths in North Carolina.

From 1997 to 2001 in North Carolina, there was a sharp increase in the number and percentage of deaths associated with methadone—from 7 deaths in 1997 to 58 deaths in 2001. Methadone sources were documented for most of these deaths. Sixty-six deaths were known to involve prescriptions, either for pain (46) or addiction treatment (5), and 28 cases were known to have involved illicit access to methadone.

Other poisoning activities at the National Center for Injury Prevention and Control include providing assistance with assessing State-based poisoning surveillance data from vital records in 10 States, which

has found increasing numbers of poisoning deaths in these States as well.

Lastly, the National Electronic Injury Surveillance System—Cooperative Adverse Drug Event Surveillance (NEISS-CADES), initiated in 2003, provides active surveillance of adverse drug events. The system is a collaborative effort involving CDC, the Food and Drug Administration, and the Consumer Product Safety Commission, but at this time it only includes events from therapeutic use of drugs and not drug abuse.

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Special Presentations: Hospital Emergency  
Department Data

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## Update on DAWN

*Judy K. Ball, Ph.D., M.P.A.*

In previous meetings, CEWG members were informed of a number of changes to come in the DAWN emergency department (ED) system, such as a new data collection instrument and a new system for reporting data. That new system is now in place. Because of the scope and magnitude of the changes, there will be a permanent disruption in trends. No estimates from the old system will be comparable to the new. There is truly a “brick wall” between the new and old systems.

The new system was implemented in the field beginning in January 2003. Over the past year, Reporters have been retrained in the new methods. DAWN Reporters must complete a tutorial and demonstrate their mastery of the material before they are actually certified and able to begin reporting to DAWN.

DAWN now collects data on all types of drug-related ED visits for patients of all ages. ED visits in which alcohol was the only drug are now collected for patients under age 21, when alcohol is an illegal drug. Each case is assigned to one of eight case types, which may be of interest to different audiences. The eight case types are suicide attempts, seeking detoxification, underage alcohol only, adverse reactions, accidental ingestions, overmedication, malicious poisonings, and all other drug-related visits. In addition, DAWN now collects new data items, including data on health (presenting complaints and diagnoses), whether the specific drugs were confirmed by toxicology, and more detailed information on disposition.

Many of the methods introduced in the new DAWN ED system were tested during the redesign period. For example, DAWN now requires a review of all medical charts to find reportable cases. This method of “direct chart review” is superior to the old method of scanning logs or billing codes and choosing patients who were “likely” to be DAWN cases. When tested, the old methods were found to miss a high proportion of cases of interest (30 percent or more).

DAWN now identifies “drug abuse” by a process of elimination. In the old DAWN system, it was learned that drug abuse is often not documented or is poorly documented in medical charts. The new method of collecting all drug-related cases and then assigning

them to case types will capture cases that were previously missed or reported inconsistently.

The new DAWN data reveal many differences across case types. For example, demographics of patients (age and gender, particularly) differ across case types. Whether drugs are confirmed by toxicology also varies across case types and drugs. For example, lower confirmation rates are found for adverse reactions and accidental ingestions, when the identity of the drug ingested is most likely to be known. In cases of malicious poisoning, the confirmation rates are higher, as would be expected when the identity of the substance ingested may be unknown to the patient. For the new category of alcohol-only cases, nearly one-half are confirmed by toxicology, indicating that alcohol testing is rather widespread in hospitals.

DAWN also has a new sample of hospitals and new metropolitan boundaries based on the 2000 Census that were recently released by the Office of Management and Budget. However, metropolitan area estimates for 2003 are unlikely to be possible, given the low response rates in many of the metropolitan areas.

There are new benefits for hospitals that participate in DAWN. Each hospital has immediate access to its own DAWN data. The addition of drug-related cases not related to substance abuse makes the data more useful for clinical practice. For example, hospitals will have data on adverse reactions and overmedication that might be used to improve patient care. This information will also be useful to SAMHSA and to sister agencies such as the Food and Drug Administration. Since all charts are now being reviewed, gathering drug-related cases other than substance abuse is a relatively small task and makes DAWN more attractive to hospitals. Electronic reporting makes it possible to give hospitals real-time access to their own data.

OAS also plans a new way to deliver information to users such as the CEWG. For CEWG members, staff are developing a new system to “make a table” that will replace “pick a table.” Members will be able to specify the tables they want, save them, and retrieve them for later use, thus avoiding stacks of hard copy tables.

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# Emerging Drugs: A Perspective from the Hospital Emergency Department

Edward W. Boyer, M.D., Ph.D.

## Advantages of Emergency Department Studies

Emergency department (ED) data can be effectively used to identify emerging drug abuse problems and patterns of use, including recreational drug use and abuse. Epidemiological studies conducted in EDs have few limitations on the types of patients that can be recruited. One may sample members of the general population and oversample “hidden populations,” such as the homeless, minorities, and immigrant populations. The advantages of ED-based surveillance strategies in many EDs include the application of rigorous testing to confirm self-reported drug use, the opportunity for clinicians to speak at length with drug users, and the availability of medical toxicologists who understand the clinical and neurobehavioral effects of illicit substance use.

The types of patients seen in EDs—those seeking care for primary care complaints—have dramatically increased the volume of patients seeking emergency care across the United States, with many EDs serving more than 75,000–100,000 patients per year. This phenomenon increases the likelihood of drawing adequate sample sizes to study emerging drug abuse patterns.

Academic EDs often include medical toxicologists, many of whom have a clinical interest in drug abuse. Clinicians can speak at length with patients about drug use patterns, and they can compare self-reports with the rigorous analysis of biological specimens using gas chromatography/mass spectroscopy (GCMS) or high performance liquid chromatography (HPLC). Moreover, the existence of toxicology referral centers that accept transferred patients expands the catchment area of a single ED to include patients from a large geographical area.

## Observations from the New England Regional Center for Medical Toxicology

The University of Massachusetts operates the New England Regional Center for Medical Toxicology. The center treats acutely poisoned individuals, and a number of observations have been made with regard to psychoactive substances used for recreational purposes, including the following:

- Increases in so-called “boutique” hallucinogen use
- Changes in drug formulations and combinations
- Increased diversion of prescription and over-the-counter (OTC) pharmaceuticals
- Decreases in presentations for acute toxicity from specific club drugs
- Dramatic increases in withdrawal presentations

“Boutique” hallucinogens demand and defy definition. These are hallucinogenic substances, sometimes referred to as “entheogens” that are used for “spiritual purposes.” Boutique hallucinogens include not only hallucinogenic plants, such as Syrian rue and *Salvia divinorum*, but also the chemicals described in the volumes *PIHKAL, Phenethylamines I Have Known and Loved: A Chemical Love Story* and *TIHKAL, Tryptamines I Have Known and Loved: The Continuation*, both by Alexander and Ann Shulgin. These are lesser-known drugs that are sometimes used with other substances to produce specific neurobehavioral effects. Under a presumption of legality, they can be easily purchased, either from storefronts or from online vendors. The number of patients who present to an ED for medical care following use of these substances is low, but the increase in their use is suggested from patient interviews.

The most common boutique hallucinogens described by patients appear to be tryptamines, such as dimethyltryptamine (“DMT”), 5-methoxydimethyltryptamine (“5-MeO-DMT”), and 5-methoxydiisopropyltryptamine (“5-MeO-DIPT,” “foxy methoxy”). Although these substances can be easily identified in urine by using HPLC or GCMS, it is difficult to obtain biological specimens, because patients who use these drugs rarely present to an ED with acute toxicity. Most who do present after using these substances are relatively inexperienced users who suffer trauma. It is perhaps the association of trauma with use of these substances that leads to the recommendation by online drug encyclopedias that a sober “sitter” be used to protect users from adverse effects.

Several modes can be used to administer tryptamines, including snorting, smoking, or rectal administration. The intensity of the neuropsychiatric effect is offset by its brief duration of only a few minutes. Some users have attempted to prolong the effects of tryptamines by the coingestion of Syrian rue extracts that contain the monoamine oxidase inhibitor harmaline with ensuing MAOI poisoning. However, as noted earlier, the appearance in EDs of individuals who have used these substances is uncommon; thus clinicians are required to interview knowledgeable individuals to identify their use.

Similarly, ethnographic data from the ED suggest that several hallucinogenic amphetamines are increasing in popularity. Patients who have used these substances rarely present to an ED with acute toxicity from these drugs, thus requiring clinician interviews to ascertain patterns of use. In Massachusetts, ED patients have described the use in various venues of 2,5-dimethoxy-4-(n)-propylthiophenethylamine (2C-T-7), methylenedioxymethamphetamine (MDMA), methamphetamine, and 4-bromo-2,5-dimethoxyphenethylamine (2C-B), ketamine, and other club drugs. Although hallucinogen mixtures are frequently compounded into pill form, some users report the use of powders, the composition of which depends upon the location in which they are consumed. The use of powdered formulations may avoid the cost associated with pill manufacture and allow greater flexibility in compounding mixtures to be sold in specific locations. The extent to which drug users consume alternative formulations of drugs is unknown, but this practice may affect the validity of pill testing programs.

The diversion of pharmaceuticals from legitimate to recreational use is another emerging pattern of use that can be observed in an ED setting. The presentation of individuals with acute opiate and sedative hypnotic overdose is common in EDs; OxyContin and fentanyl abuse are particularly common. OxyContin is reportedly administered by a variety of modes, including ingestion or grinding pills into a powder, injection, or inhalation. Fentanyl users describe either bisecting fentanyl patches prior to ingestion or extracting the

drug from the patch matrix. Rarely, fentanyl abusers will apply several patches to the body to achieve the delivery of large amounts of drug, or they will smoke fentanyl vaporized by heating. Diversion of sedative hypnotic agents is also common, with many individuals in New England reporting the illicit use of clonazepam. Many individuals describe using clonazepam to self-detoxify from heroin; occasionally junior high and high school students present for ED care after using this drug during classes.

Lastly, one interesting observation from the ED involves a change in presentations involving club drugs. Formerly, moderate numbers of adolescents and young adults presented to the ED with acute gamma hydroxybutyrate (GHB) intoxication. Over about the last year, however, the number of acutely intoxicated GHB users has decreased, while the number of individuals requesting admission for detoxification from GHB has increased. Some of these individuals avoid direct contact with rehabilitation facilities, claiming that personnel at those facilities have no experience with managing GHB withdrawal. Furthermore, these individuals have remarked that they use emergency medical care because the ED staff offers better pharmacological management for GHB withdrawal states.

In summary, experience at the New England Center indicates that locating future drug surveillance efforts in EDs staffed by medical toxicologists can yield important information on emerging drug patterns and health consequences of drug abuse.

#### REFERENCES

- Shulgin, A., and Shulgin, A. *PIHKAL, Phenethylamines I Have Known and Loved: A Chemical Love Story*. Berkeley, CA: Transform Press, September 1991.
- Shulgin, A., and Shulgin, A.. *TIHKAL, Tryptamines I Have Known and Loved: The Continuation*. Berkeley, CA: Transform Press, December 1997.

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## International Reports

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# The Canadian Community Epidemiology Network on Drug Use (CCENDU)

*Colleen Anne Dell, Ph.D. and Karen Garabedian, M.A.*

The Canadian Community Epidemiology Network on Drug Use (CCENDU) was established in 1996 to monitor drug use and adverse consequences of drug use at the community level. Site reports for 2001 were prepared by Halifax, Vancouver, Edmonton, Regina, Winnipeg, Toronto, and St. John's, and for 2002 by Winnipeg, Fredericton, Vancouver, and Toronto. Interim reports were received from Regina and Ottawa. No current information is available from Whitehorse, Yukon. Earlier data are available in previous CEWG reports.

Spearheaded by the Canadian Centre on Substance Abuse (CCSA) and guided by a steering committee, CCENDU is a collaborative project involving Federal, provincial, and community agencies, with intersecting interests in drug use, health and legal consequences of use, treatment, and law enforcement.

The major goal of CCENDU is to coordinate and facilitate the collection, organization, and dissemination of qualitative and quantitative information on drug use among the Canadian population at the local, provincial/territorial, and national levels. Further, CCENDU aims to foster networking among key multisectoral partners, to improve the quality of data being gathered, and to serve as an early warning system concerning emerging trends. Ultimately, CCENDU strives to support and encourage sound policy and program development related to drug use.

## **Edmonton, Alberta**

According to baseline data from the 2002–2003 OPICAN Cohort Study, a survey of untreated opiate users, 92.5 percent of respondents reported having injected drugs in the prior 30 days. Of these, 34.7 percent shared injecting equipment, and 20.4 percent shared needles. Additionally, 50.9 percent of opiate users reported having received treatment in the prior 12 months, and 55.6 percent had received methadone maintenance treatment.

Edmonton is estimated to have 5,000 injection drug users. The Ethnographic Study of Injection Drug Users, a combination of two studies and reports on 2001–2002 and 2002–2003 data, concluded that among injection drug users (IDUs) in Edmonton, the most frequent first drug injected was cocaine (31

percent), followed by methamphetamine/speed (27 percent). The most common current drugs injected were opiates (33 percent) and Talwin (pentazocine lactate) and Ritalin (methylphenidate) (25 percent each). Seventy-two percent of study participants were infected with hepatitis C, and 53 percent were not currently seeking treatment. Reasons given for not seeking treatment included fear of being judged, long waiting lists, an overly bureaucratic system, and treatment being painful and stressful.

## **Fredericton, New Brunswick**

Data from the local needle exchange program, the New Brunswick hepatitis C database, and the New Brunswick human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) database indicate that injection drug use is on the rise. From 1997 to 2001, 956 persons were recorded as having contracted hepatitis C in New Brunswick, with 47.8 percent identified as IDUs. In the province, 20.5 percent of those with HIV/AIDS were identified as IDUs. Of particular concern to Fredericton and the surrounding areas is an increase in the use of Dilaudid, particularly among injection drug users.

## **Halifax, Nova Scotia**

A treatment client drug use study conducted in 2001 with 5,262 males and 2,590 females found that 80 percent of respondents were using cocaine, benzodiazepines, and/or opiates. Cannabis use was reported by slightly less than 80 percent of respondents.

Heroin, morphine, and Demerol are commonly used among injection drug users in Atlantic Canada. Dilaudid is readily prescribed, and there have been documented cases of double-doctoring. Users are typically between the ages of 18 and 44, and injection drug use is becoming more prevalent among youth. Injection drug use is also highly prevalent among men and women who work in the sex trade.

Between August 1996 and March 2001, there were 214 Drug Dependency Services methadone service admissions (160 male, 54 female). The average age was 39.8 years; the youngest was 20 and the oldest was 59.

### Ottawa, Ontario

The 2001 Ontario Student Drug Use Survey showed that approximately 30 percent of students used cannabis during the previous year, and 34 percent had used it in their lifetime. Cannabis was the most common illicit drug used by students in grades 7–13.

According to the 2000 SurviDU study, there were an estimated 962 cases of HIV related to injection drug use in Ottawa. It was also estimated that Hull had 186 cases. A large percentage of men and women were between the ages of 35 and 39 (24 percent for both groups).

### Regina, Saskatchewan

In the 2000 Regina Seroprevalence Study, 255 IDUs were interviewed, and blood and urine samples were collected from participants. The seroprevalence among participants was 2 percent HIV, 20.6 percent hepatitis B, and 46.5 percent hepatitis C. Large percentages were identified as having borrowed (44 percent) or lent (42 percent) used injecting equipment, and 29 percent reported sharing needles/syringes. Talwin and Ritalin were the drugs most frequently injected.

According to 2000–2001 and 2001–2002 data from the Regina Health Authority, Alcohol and Drug Services Client Information System, the number of clients in each of the 2 years was nearly identical (3,852 vs. 3,848). Thirty-five percent reported marijuana as a problem, 16.3 percent reported cocaine, 14.5 percent reported nonprescription drugs (including opioids), and 2 percent reported Lysol and solvents.

Data derived from the Regina Integrated Drug Unit reveal an increase in cocaine use. Also, the people using drugs, including injected drugs, are a younger population. There is also greater visibility and use of injection drugs reported in upper class or privileged homes. Street drugs of choice are Talwin and Ritalin, ecstasy, lysergic acid diethylamide (LSD), cocaine, and morphine.

### St. John's Newfoundland and Labrador

There is a strong presence of rave drugs compared with 3 years ago. There has also been an increase in pharmacy break-and-enters in which OxyContin and Tylenol 4 were sought. In Labrador, gas sniffing continues to be a great problem.

### Toronto, Ontario

Designer drug use, a relatively new phenomenon, poses new challenges in prevention of drug-related harms, especially with respect to drug identification and purity.

Crack cocaine continues to be the most popular drug on the street. In addition to smoking of the drug, the injection of crack is also widespread. Both modes of use raise concerns regarding the spread of hepatitis C.

Polydrug use also appears to be widespread. While the effects of many illicit substances remain unknown, still less is known regarding the interactions between these drugs. New trends in enforcement and regulation include the Toronto Drug Treatment Court, the first of its kind in Canada, as well as the Health Canada trials of medicinal marijuana.

### Vancouver, British Columbia (BC)

In 2001, there were 222 illicit drug deaths in BC, of which 90 were in Vancouver. This is the highest absolute number and per-capita rate in Canada. Heroin and cocaine remain the major drugs of choice for injection.

Of the 21,937 drug crimes in BC in 2000, 16,730 were cannabis-related, 3,520 involved cocaine, 796 involved heroin, and 891 involved other illicit drugs included in the Controlled Drugs and Substances Act.

### Winnipeg, Manitoba

The most prevalent illicit drug in Manitoba is cannabis, and law enforcement agencies continue to effect large seizures of it. Despite its presence, heroin is still not considered a major drug in Winnipeg, and other drugs more commonly reported are cocaine, crack cocaine, hashish and hashish oil, Talwin, Ritalin, psilocybin, and LSD. Cocaine is often seized by law enforcement in large quantities, and the Addictions Foundation of Manitoba reports high usage of cocaine among its client populations.

According to recent reports, the predominant risk factors among hepatitis C-infected individuals are injection drug use and blood transfusion. Two key major provincial initiatives specific to hepatitis C were implemented in 2001 to test for the virus and to enhance care, support, and prevention programs.



# Update of the Epidemiologic Surveillance System of Addictions (SISVEA) in Mexico: First Half 2003

Roberto Tapia-Conyer, M.D., Patricia Cravioto, Ph.D., Pablo Kuri, M.D., Fernando Galvan, and Mario Cortes<sup>1</sup>

## ABSTRACT

Mexico's Epidemiologic Surveillance System of Addictions gathered data on 9,650 patients at government treatment centers (GTCs) and 19,707 patients in nongovernment treatment centers (NGCs) in the first half of 2003. During that timeframe, 23.1 percent of patients admitted to GTCs and 13.3 percent of patients admitted to NGCs reported cocaine as their current (primary) drug of abuse. According to the Juvenile Detention Centers, cocaine abuse was reported by 18.1 percent of young arrestees in the first half of 2003. Heroin was the fifth most common primary drug of abuse at GTCs in the first half of 2003 (accounting for 2.4 percent of admissions), and it was the most common primary drug of abuse at NGCs (21.7 percent). Only 1 percent of juveniles arrested during the first half of 2003 reported heroin use. As a primary drug of use, marijuana ranked third at GTCs (16.2 percent) and fourth at NGCs (10.2 percent). More than one-third (34.6 percent) of the 4,644 juveniles arrested during the first half of 2003 reported use of marijuana. Inhalant abuse was reported as the primary drug problem by 10.4 percent of patients entering GTCs and 10.2 percent of patients entering NGCs. Fourteen percent of juvenile arrestees reported inhalant use in the first half of 2003.

## INTRODUCTION

The Epidemiologic Surveillance System of Addictions of Mexico (SISVEA), created in 1990, is the product of collaboration among different government and nongovernment agencies. SISVEA has provided periodic and timely information on tobacco, alcohol, and medical and illegal drug use. The information SISVEA provides allows for the identification of risk groups, new drugs, changes in consumption patterns, and risk factors associated with the use and abuse of alcohol, tobacco, marijuana, cocaine, heroin, and other drugs.

SISVEA started 13 years ago with only eight cities (mainly at the northern border of Mexico) participating. Currently, it gathers information from 53 cities;

38 percent are located at the border and the rest are in metropolitan and recreational areas. The system has evolved and now collects information on five indicators from different sources.

## Data Sources

This report discusses activities of SISVEA during the first half of 2003. The sources of data for the different indicators are described below:

- **Treatment data** cover the characteristics and consumption patterns related to the first drug of use and primary drug of use. The data are collected from government treatment centers (GTCs) i.e., (Centers of Juvenile Integration) and nongovernment treatment centers (NGCs) in the participating SISVEA cities through the first half of 2003.
- **Drug consumption data** for juvenile arrestees were provided by Juvenile Detention Centers for the first half of 2003.
- **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

Marijuana was the second most common first drug of use (12.4 percent) among GTC patients in the first half of 2003 (exhibit 1). As a primary drug, marijuana ranked third among GTC patients (16.2 percent).

According to GTCs, marijuana users during the first half of 2003 were mostly male (91.7 percent); 30.1 percent were age 15–19, 45.8 percent had a middle school education, 61.0 percent were single, and 47.4 percent came from a middle-low socioeconomic level (exhibit 2). The age of onset for 91.9 percent of marijuana users occurred between 10 and 19 years

<sup>1</sup> The authors are affiliated with the Ministry of Health of Mexico.

of age, and 62.8 percent of marijuana users reported daily use.

Based on data gathered from GTCs during the first half of 2003, the natural history of marijuana use among these patients showed that 9.5 percent entered treatment as monodrug users, and 90.5 percent used a second drug, usually alcohol (27.9 percent) or tobacco (21.3 percent) (exhibit 3). Of multiple drug users, 84.3 percent advanced to a third drug, usually alcohol (24.9 percent), cocaine (19.5 percent), tobacco (18.0 percent), or inhalants (12.5 percent).

Among NGC patients in the first half of 2003, marijuana was the second most common drug of first use (27.4 percent), and it was the fourth most common primary drug (10.2 percent) (exhibit 4).

According to data gathered from NGCs, mostly males (96.2 percent) used marijuana; 23.0 percent were age 35 and older, 40.4 percent had a middle school education, and 56.7 percent were single (exhibit 5). The age of onset for marijuana use among most of these patients was between 10 and 14 (49.1 percent), and 85.6 percent reported daily use.

The natural history of marijuana consumption reported by NGCs during the first half of 2003 shows that 12.7 percent were monodrug users upon entry to treatment, while the remaining 87.3 percent had progressed to a second drug, which in order of use were cocaine (25.8 percent) and alcohol (16.8 percent) (exhibit 3). Of this group, 76.6 percent were already using a third drug, mainly heroin (22.0 percent), cocaine (21.7 percent), and crystal (12.6 percent).

Information from the Juvenile Detention Centers reported that 34.6 percent of the 4,644 juveniles arrested during the first half of 2003 used marijuana (exhibit 6). Most of this population was male (94.2 percent); 56.7 percent had an elementary school education, 41.1 percent were subemployed, 39.0 percent had a tattoo, and 31.9 percent were gang members. One-third of the offenses were committed under intoxication, and 49.0 percent of the offenses were robberies.

ME data indicated that 3.5 percent of deaths reported were associated with marijuana. All marijuana-associated decedents were male; 37.9 percent were age 30–34, 27.6 percent were age 40 and older, and 20.7 percent were age 25–29 (exhibit 7). The main causes of death in these cases were asphyxia and firearm (24.1 percent each) and intoxication (20.7 percent).

Most of these deaths occurred on the street (67.9 percent) or at home (21.4 percent).

### **Inhalants**

During the first half of 2003 at GTCs, inhalants ranked as the third most commonly reported drug of onset (7.7 percent) and fourth as a primary drug of abuse (10.4 percent) (exhibit 1).

Inhalant users attending GTCs were mostly male (88.5 percent) and age 15–19 (36.2 percent). Most patients had a middle school education (57.0 percent), 73.4 percent were single, and 53.6 percent were from a middle-low socioeconomic level (exhibit 2). Most began using inhalants between the ages of 10 and 14 (63.8 percent), 42.6 percent used inhalants daily, and 40.8 percent used them once a week.

GTC data on the natural history of inhalants use show that 22.2 percent of inhalant patients were monodrug users upon entering treatment; 77.8 percent were already using a second drug, mainly marijuana (28.6 percent), alcohol (25.5 percent), or tobacco (22.7 percent) (exhibit 8). Of the multiple drug users, 81.8 percent used a third drug, mainly alcohol (27.6 percent), tobacco (21.2 percent), marijuana (20.6 percent), or cocaine (13.8 percent).

Among clients at NGCs in the first half of 2003, inhalants ranked third (13.2 percent) as a drug of onset and fourth (10.2 percent) as a primary drug (exhibit 4).

NGCs report that of the 2,609 patients who used inhalants in the first half of 2003, most were male (93.8 percent); 30.1 percent were age 15–19, 58.3 percent had an elementary school education, and 69.4 percent were single (exhibit 5). More than one-half started using inhalants at age 10–14 (53.2 percent), and 84.8 percent reported daily use.

As for the natural history of drug use among inhalants users at NGCs, 52.2 percent of the patients in the first half of 2003 had progressed to a second drug, which in order of importance were marijuana (55.0 percent), alcohol (14.8 percent), and inhalants and cocaine (6.5 percent each) (exhibit 8). Of them, 75.9 percent used a third drug, usually cocaine (25.0 percent), marijuana (17.5 percent), tranquilizers (14.2 percent), or alcohol (10.4 percent).

According to Juvenile Detention Centers, 14.1 percent of juvenile arrestees in the first half of 2003 had used inhalants (exhibit 6). Most were male (93.3 percent);

67.5 percent had an elementary school education, 47.5 percent were subemployed, 41.5 percent had tattoos, and 44.6 percent belonged to a gang. Robbery was the most common offense (50.8 percent), and 38.2 percent committed the offense while intoxicated.

### Alcohol

Among GTC clients in the first half of 2003, alcohol was the most commonly reported drug of first use (31.6 percent), but it ranked second (17.3 percent) as the current primary drug of use (exhibit 1).

Of the 9,650 patients attending treatment at GTCs in the first half of 2003, 3,044 were abusing alcohol (exhibit 2). Of these, 84.7 percent were male, 26.3 percent were age 15–19, and 19.9 percent were age 20–24. A middle school education was reported by 44.3 percent; 57.3 percent were single, and 54.5 percent were from a middle-low socioeconomic level. Almost one-half (47.7 percent) began using alcohol between the ages of 15 and 19. Weekly use was reported by 50.1 percent, and 28.5 percent reported using 1–3 times per month.

At GTCs, the natural history of drug use among patients whose drug of first choice was alcohol showed that 91.0 percent progressed to a second drug, usually tobacco (53.9 percent), marijuana (18.5 percent), or cocaine (15.4 percent) (exhibit 9). Of the multiple drug user group, 73.6 percent reported using a third drug, usually marijuana (34.3 percent), cocaine (27.5 percent), and inhalants (10.0 percent).

Among NGC patients in the first half of 2003, alcohol ranked first as the drug of first use (28.6 percent) and second as a current drug of choice (17.5 percent) (exhibit 4).

NGCs reported that most of the 5,635 patients who abused alcohol during the first half of 2003 were male (92.4 percent) (exhibit 5); 40.4 percent were age 35 or older, 33.8 percent had a middle school education, 43.1 percent were single, and a sizable minority (45.7 percent) started using alcohol between the ages of 15 and 19. Seventy percent reported daily use, and 23.8 percent used alcohol once per week.

The natural history of alcohol abuse provided by NGCs during the first half of 2003 shows that 25.6 percent were monodrug users, while the remaining 74.4 percent progressed to a second drug, typically marijuana (39.2 percent), cocaine (20.6 percent), or tobacco (16.4 percent) (exhibit 9). Two-thirds (67.1 percent) progressed to a third drug, usually cocaine

(34.1 percent), marijuana (16.8 percent), and crystal (12.1 percent).

Among juvenile infractors, 12.6 percent reported alcohol abuse (exhibit 6). Most were male (93.0 percent); 48.8 percent had an elementary school education, 34.4 percent were employed, 28.0 percent had tattoos, and 22.6 percent were gang members. More than one-third of the juveniles (34.0 percent) committed the offense while intoxicated, and robbery (43.4 percent) was the most common offense.

According to MEs, the abuse of alcohol was associated with 87.3 percent of the drug-related deaths in the first half of 2003 (exhibit 7). Most decedents were male (95.5 percent), and 39.9 percent were age 40 or older. The main cause of death was asphyxia (23.7 percent), followed by traffic accidents (14.8 percent). The most common places where alcohol-related deaths occurred were the street (38.8 percent) or at home (33.3 percent).

### Cocaine

Among patients at GTCs in the first half of 2003, cocaine ranked fourth as the first drug of use (4.1 percent) and first as primary drug (23.1 percent) (exhibit 1).

GTCs reported that cocaine users during the first half of 2003 were mostly male (83.5 percent); 26.8 percent were age 15–19, 48.0 percent had a middle school education, 54.3 percent were single, and 25.9 percent were married (exhibit 2). Almost one-half (48.8 percent) were members of a middle-low socioeconomic level, and 44.1 percent initiated cocaine use between the ages of 15 and 19. Once-a-week cocaine use was reported by 44.4 percent, and 37.5 percent reported daily use.

The natural history of cocaine abuse data from GTCs show that 32.3 percent of patients were still monodrug users when they entered treatment, while the rest were already using a second drug, usually alcohol (35.0 percent), marijuana (21.3 percent), or tobacco (18.3 percent) (exhibit 10). Of the multiple drug users, 66.8 percent had started to use a third drug: tobacco (35.0 percent), alcohol (24.2 percent), or marijuana (17.5 percent).

At NGCs in the first half of 2003, cocaine ranked fourth as the drug of onset (4.9 percent of the cases) and third as the current drug of abuse (13.3 percent) (exhibit 4).

Among cocaine users who attended NGCs in the first half of 2003, 90.6 percent were male, 22.9 percent were age 20–24, 37.5 percent had a middle school education, and 49.2 percent were single (exhibit 5). Forty-three percent started using cocaine between ages 15 and 19, 69.4 percent reported daily use, and 23.8 percent reported weekly use of cocaine.

The natural history of cocaine abuse data reported by NGCs during the first half of 2003 show that 35.1 percent of cocaine patients were still monodrug users upon treatment entry, and 64.9 percent used a second drug, usually marijuana (27.5 percent), alcohol (17.2 percent), crystal (14.2 percent), or heroin (12.3 percent) (exhibit 10). Of the multiple drug users, 45.7 percent used a third drug, usually alcohol (18.7 percent), marijuana (18.4 percent), or crystal (14.3 percent).

Juvenile Detention Centers reported cocaine use among 18.1 percent of juvenile arrestees in the first half of 2003 (exhibit 6). They were mostly male (93.0 percent); 57.4 percent had an elementary school education, 46.0 percent were subemployed, 36.9 percent had tattoos, and 33.3 percent were gang members. Almost one-third of the juvenile infractors (32.6 percent) committed the offense while under intoxication, and robbery was the most common offense (51.6 percent).

### Heroin

At GTCs in the first half of 2003, only 0.2 percent of patients reported heroin as their drug of onset, but 2.4 percent reported heroin as their primary drug, ranking fifth (exhibit 1).

According to GTCs, heroin users during the first half of 2003 were primarily male (93.8 percent); 37.5 percent were age 35 and older, and 18.8 percent each were age 20–24 and 30–34 (exhibit 2). One-half had a middle school education, 75.0 percent were single, 56.3 percent were from a middle-low socioeconomic level, and 37.5 percent were from a low socioeconomic level. The age of onset for 46.7 percent of heroin users occurred between 15 and 19 years of age; 100.0 percent of heroin users reported daily use.

Among NGC patients in the first half of 2003, heroin as the drug of onset ranked fifth (2.2 percent), while as a primary drug heroin ranked first (21.7 percent) (exhibit 4).

According to data gathered from NGCs, mostly males (92.7 percent) used heroin; 42.9 percent were age 35 and older, 39.5 percent had an elementary school education, and 46.7 percent were single (exhibit 5). The most common age of first use of heroin among these patients was between 15 and 19 (34.1 percent), and 91.9 percent reported daily use.

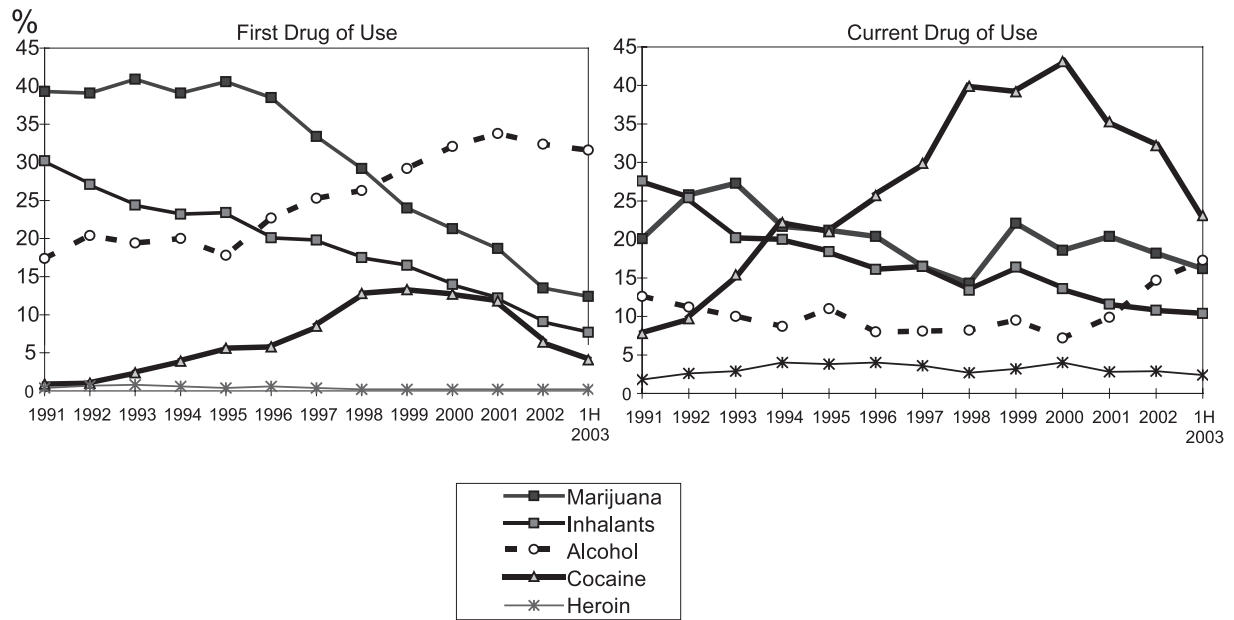
Information from the Juvenile Detention Centers shows that 1.0 percent of the juveniles arrested during the first half of 2003 used heroin (exhibit 6). Most of this population were male (95.6 percent); 55.6 percent had an elementary school education, 35.6 percent were subemployed, 53.7 percent had tattoos, and 33.3 percent were gang members. Robbery was the most common offense (66.7 percent), and 54.5 percent of the offenses were committed under intoxication.

### CONCLUSIONS

In the first half of 2003, drug mentions varied according to the different information sources. Reports of marijuana and alcohol use increased among arrestees at Juvenile Detention Centers, while the abuse of alcohol increased according to ME data. GTC data showed that marijuana and inhalants decreased among patients as drugs of onset, while alcohol continued to increase. The most prevalent current drug among GTC patients was cocaine, although the proportion of cocaine patients in the first half of 2003 decreased compared with in 2002. NGC data showed that cocaine slightly decreased as a drug of onset, but as a current drug, cocaine accounted for 23.8 percent of the patients seeking treatment. Heroin as a drug of first use among NGC patients was stable, but as a current drug it decreased slightly between 2002 and the first half of 2003. However, heroin continued to rank first as the current drug of use among patients at NGCs. A goal for SISVEA is to strengthen and expand the system to include the rest of Mexico.

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**Exhibit 1. Comparison Between First Drug of Use and Current Drug of Use Among GTC Patients in Mexico, by Percent: 1991–1H 2003**



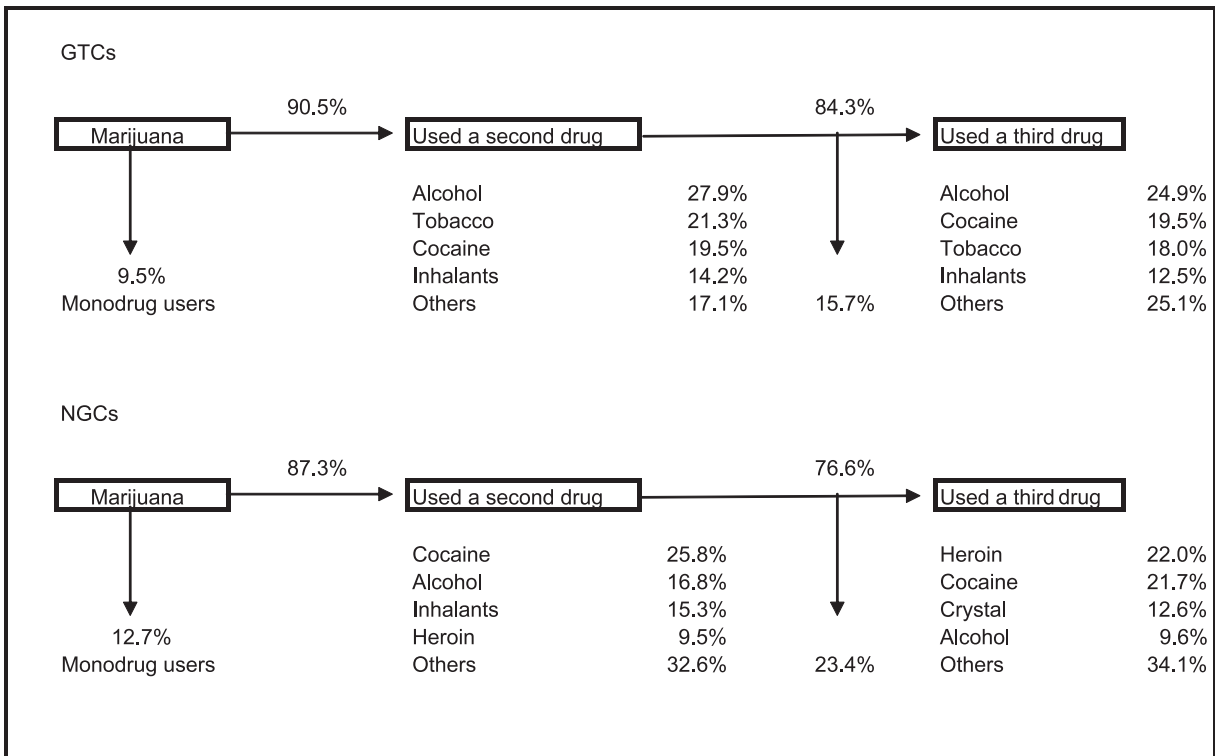
SOURCE: SISVEA—Centers of Juvenile Integration (GTCs)

**Exhibit 2. Demographic Characteristics of GTC Patients in Mexico, by First Drug of Use and Characteristic Percent: January–June 2002**

Characteristic	Total	Marijuana	Inhalants	Alcohol	Cocaine	Heroin
	N=9,650	n=1,194	n=740	n=3,044	n=395	n=16
Gender						
Male	83.6	91.7	88.5	84.7	83.5	93.8
Female	16.4	8.3	11.5	15.3	16.5	6.3
Age						
5–14	8.4	6.0	22.0	7.1	6.6	0.0
15–19	29.1	30.1	36.2	26.3	26.8	12.5
20–24	19.9	20.9	15.9	19.9	24.8	18.8
25–29	15.0	14.8	11.4	18.2	19.5	12.5
30–34	11.4	14.8	7.7	12.2	14.4	18.8
35 and older	16.0	13.5	6.6	16.2	7.8	37.5
Schooling						
Elementary school	19.2	24.2	32.1	15.4	17.3	31.3
Middle school	45.2	45.8	57.0	44.3	48.0	50.0
High school	21.9	21.6	6.7	24.4	23.7	12.5
College studies	7.5	4.0	1.2	8.7	7.1	6.3
No formal education	5.9	0.8	0.5	0.3	0.5	6.3
Other	0.4	3.5	2.4	6.9	3.3	0.0
Marital Status						
Single	59.9	61.0	73.4	57.3	54.3	75.0
Married	22.5	21.5	9.0	25.1	25.9	6.3
Divorced	2.0	1.4	1.1	1.9	2.3	0.0
Widowed	0.5	0.2	0.1	0.3	0.3	0.0
Living together	9.9	11.7	11.3	9.7	12.9	12.5
Other	5.2	4.2	5.2	5.8	4.3	6.3
Socioeconomic Level						
High, middle-high	16.9	16.6	8.3	17.5	15.8	6.3
Middle-low	53.4	47.4	53.6	54.5	48.8	56.3
Low	22.5	27.7	33.9	20.8	28.1	37.5
Middle	7.3	8.2	4.3	7.2	7.3	0.0
Age of Onset						
Younger than 10	4.9	2.7	7.5	4.4	1.0	0.0
10–14	48.8	48.8	63.8	40.6	26.3	26.7
15–19	39.8	43.1	27.3	47.7	44.1	46.7
20–24	4.3	3.6	0.8	5.5	15.2	20.0
25–29	1.3	1.0	0.4	1.2	7.0	6.7
30–34	0.5	0.5	0.1	0.3	3.9	0.0
35 and older	0.5	0.2	0.0	0.3	2.6	0.0
Frequency						
Daily	54.3	62.8	42.6	17.5	37.5	100.0
Once a week	28.7	24.3	40.8	50.1	44.4	0.0
1–3 times per month	15.2	11.3	14.6	28.5	16.1	0.0
1–11 times per year	1.8	1.2	2.1	4.0	2.0	0.0

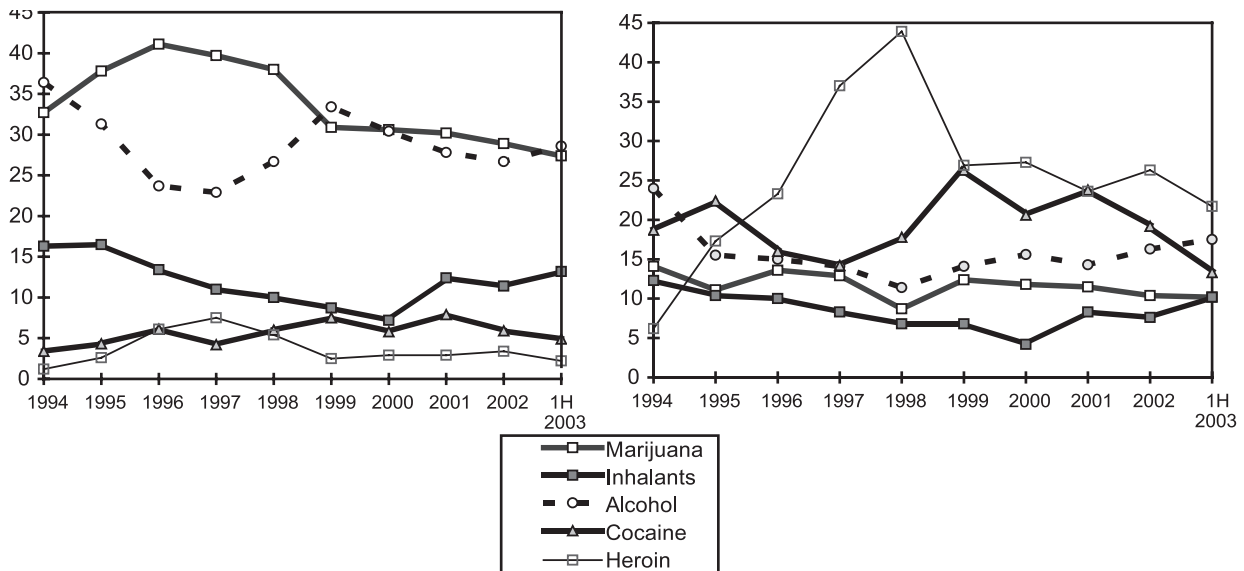
SOURCE: SISIVEA

**Exhibit 3. Natural History of Marijuana Use Among Treatment Patients in Mexico: January–June 2003**



SOURCES: SISVEA—GTCs and NGCs

**Exhibit 4. Comparison Between First Drug of Use and Current Drug of Use Among NGC Patients in Mexico, by Percent: 1994**



SOURCE: SISVEA—NGCs

**Exhibit 5. Demographic Characteristics of GTC Patients in Mexico, by First Drug of Use and Percent: January–June 2003**

Characteristic	Total	Marijuana	Inhalants	Alcohol	Cocaine	Heroin
	(N=9,650)	(n=1,194)	(n=740)	(n=3,044)	(n=395)	(n=16)
Gender						
Male	93.3	96.2	93.8	92.4	90.6	92.7
Female	6.7	3.8	6.2	7.6	9.4	7.3
Age						
5–14	2.1	1.3	7.3	0.9	1.7	0.5
15–19	16.1	16.7	30.1	16.7	18.0	3.3
20–24	20.5	22.1	25.8	15.2	22.9	14.1
25–29	18.9	20.4	16.0	17.3	22.0	23.0
30–34	15.7	16.4	10.5	16.4	18.9	16.4
35 and older	26.7	23.0	10.1	40.4	16.5	42.9
Schooling						
Elementary school	38.5	38.7	58.3	32.8	27.3	39.5
Middle school	37.2	40.4	28.4	33.8	37.5	38.6
High school	16.0	15.5	5.2	20.2	26.1	16.7
College studies	3.9	2.3	0.6	7.6	6.4	1.2
No formal education	4.1	2.9	7.4	4.9	2.1	4.0
Other	0.4	0.2	0.0	0.7	0.6	0.0
Marital Status						
Single	52.9	56.7	69.4	43.1	49.2	46.7
Married	22.2	18.2	14.6	29.3	30.1	21.9
Divorced	4.3	4.2	2.0	5.7	3.4	6.6
Widowed	0.9	0.6	0.6	1.2	0.3	1.4
Living together	12.6	13.4	7.9	12.0	11.8	14.6
Other	7.0	6.9	5.5	8.6	5.1	8.7
Age of Onset						
Younger than 10	6.0	5.3	8.7	4.6	1.4	1.7
10–14	43.4	49.1	53.2	36.9	19.8	15.4
15–19	39.3	38.2	34.7	45.7	43.0	34.1
20–24	6.8	5.0	2.5	8.3	18.0	23.6
25–29	2.6	1.7	0.7	2.4	10.8	12.4
30–34	1.1	0.5	0.2	1.0	4.3	6.5
35 and older	0.9	0.3	0.0	1.2	2.6	6.5
Frequency						
Daily	71.3	85.6	84.8	70.0	69.4	91.9
Once a week	21.3	11.5	11.8	23.8	23.8	7.2
1–3 times per month	6.0	2.5	1.9	5.2	5.6	1.0
1–11 times per year	1.4	0.5	1.4	1.0	1.3	0.0

SOURCE: SISVEA—NGCs



**Exhibit 6. Social Characteristics and Types of Offenses Committed by Juvenile Drug-Using Arrestees, by Percent: January-June 2003**

Total (N=4,644)		Marijuana (n=1,606)	Inhalants (n=667)	Alcohol (n=585)	Cocaine (n=843)	Heroin (n=45)
Male	89.7	Male 94.2	Male 93.3	Male 93.0	Male 93.0	Male 95.6
Elementary school	49.2	Elementary school 56.7	Elementary school 67.5	Elementary school 48.8	Elementary school 57.4	Elementary school 55.6
Employed	28.4	Subemployed 41.1	Subemployed 47.5	Employed 34.4	Subemployed 46.0	Subemployed 35.6
Tattoo	23.0	Tattoo 39.0	Tattoo 41.5	Tattoo 28.0	Tattoo 36.9	Tattoo 53.7
Belong to a gang	20.6	Belong to a gang 31.9	Belong to a gang 44.6	Belong to a gang 22.6	Belong to a gang 33.3	Belong to a gang 33.3
Offense under intoxication	17.7	Offense under intoxication 33.1	Offense under intoxication 38.2	Offense under intoxication 34.0	Offense under intoxication 32.6	Offense under intoxication 54.5
Frequent offenses						
Robbery	44.6	Robbery 49.0	Robbery 50.8	Robbery 43.4	Robbery 51.6	Robbery 66.7
Against health	12.2	Against health 22.9	Against health 18.6	Against health 13.7	Against health 25.1	Against health 22.2
Damages	9.8	Drugs consumption 7.1	Drug/Consumption 6.8	Damages 6.3	Drug/Consumption 6.3	Injuries 2.2
Injuries	7.1	Arm bearing 26.3	Arm bearing 5.2	Against health 4.7	Arm bearing 8.0	Arm bearing 5.8
Others	26.3	Others 16.1	Others 16.0	Others 28.6	Others 11.6	Others 6.7

SOURCE: SISVEA—Juvenile Detention Centers

**Exhibit 7. Characteristics of Deaths Under Intoxication of Drugs,<sup>1</sup> by Percent: January–June 2003**

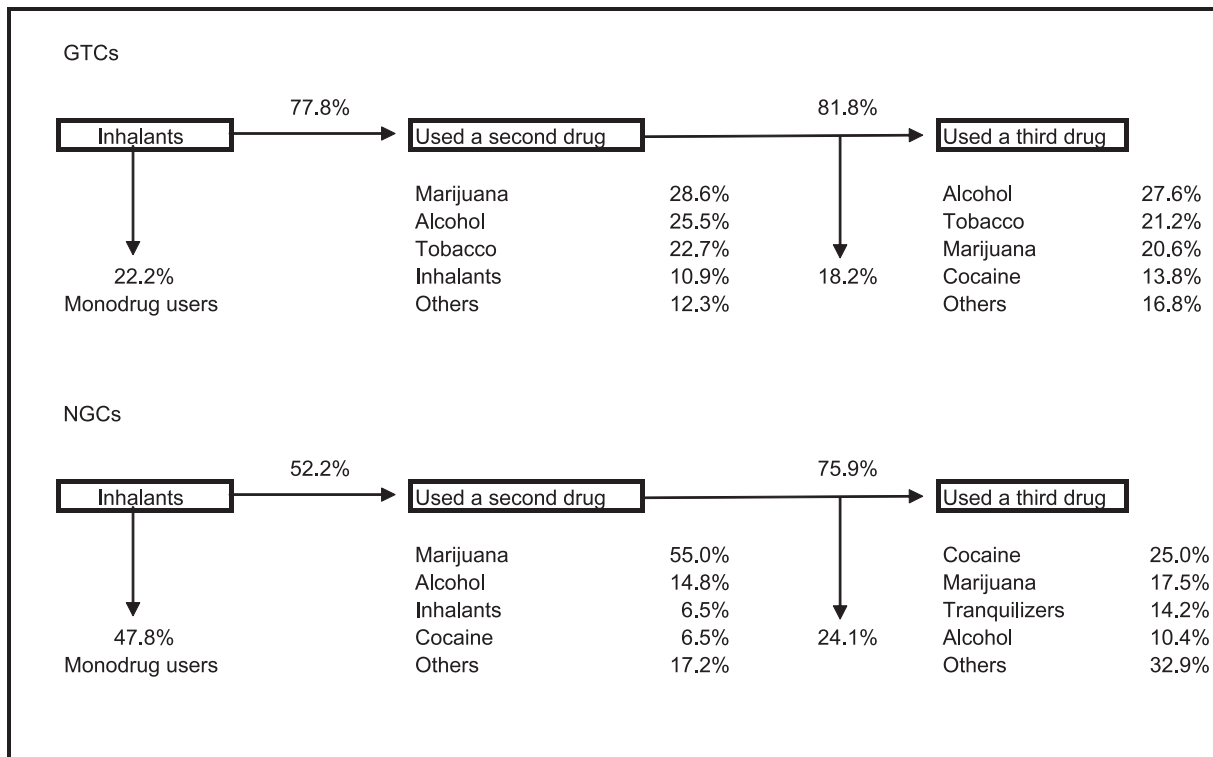
Characteristic	Total N=817	Alcohol n=713	Marijuana n=29	Opioids <sup>2</sup> n=43
Sex	%	%	%	%
Male	95.5	95.5	100.0	88.4
Female	4.5	4.5	0.0	11.6
Age				
10–14	0.4	0.4	6.8	4.7
15–19	7.4	7.4	3.4	0.0
20–24	14.6	14.6	3.4	9.3
25–29	13.8	13.8	20.7	23.3
30–34	14.0	14.0	37.9	16.3
35–39	9.8	9.8	0.0	20.9
40 and older	39.9	39.9	27.6	25.6
Cause of Death				
Run over	13.2	14.4	3.4	0.0
Traffic accident	13.1	14.8	0.0	0.0
Fall	3.7	3.5	0.0	2.3
Electrocuted	0.1	0.1	0.0	0.0
Burned	0.6	0.4	0.0	0.0
Beaten	3.1	3.5	0.0	0.0
Asphyxia	22.1	23.7	24.1	0.0
Crushed	0.1	0.1	0.0	0.0
Firearm	9.0	9.6	24.1	0.0
Steel knife	3.3	3.4	10.3	0.0
Intoxicated	12.3	8.9	20.7	9.3
Other	19.2	17.3	17.2	4.7
Place of Death				
Traffic	19.6	21.2	3.6	0.0
Home	33.5	33.3	21.4	37.2
Street	38.2	38.8	67.9	60.5
Recreational areas	2.2	2.4	0.0	0.0
At work	0.6	0.6	0.0	0.0
Service areas	4.0	1.8	3.6	0.0
Other	1.9	1.8	3.6	2.3

<sup>1</sup>Deaths from all causes totaled 4,469.

<sup>2</sup>Opioids includes opium, morphine and heroin.

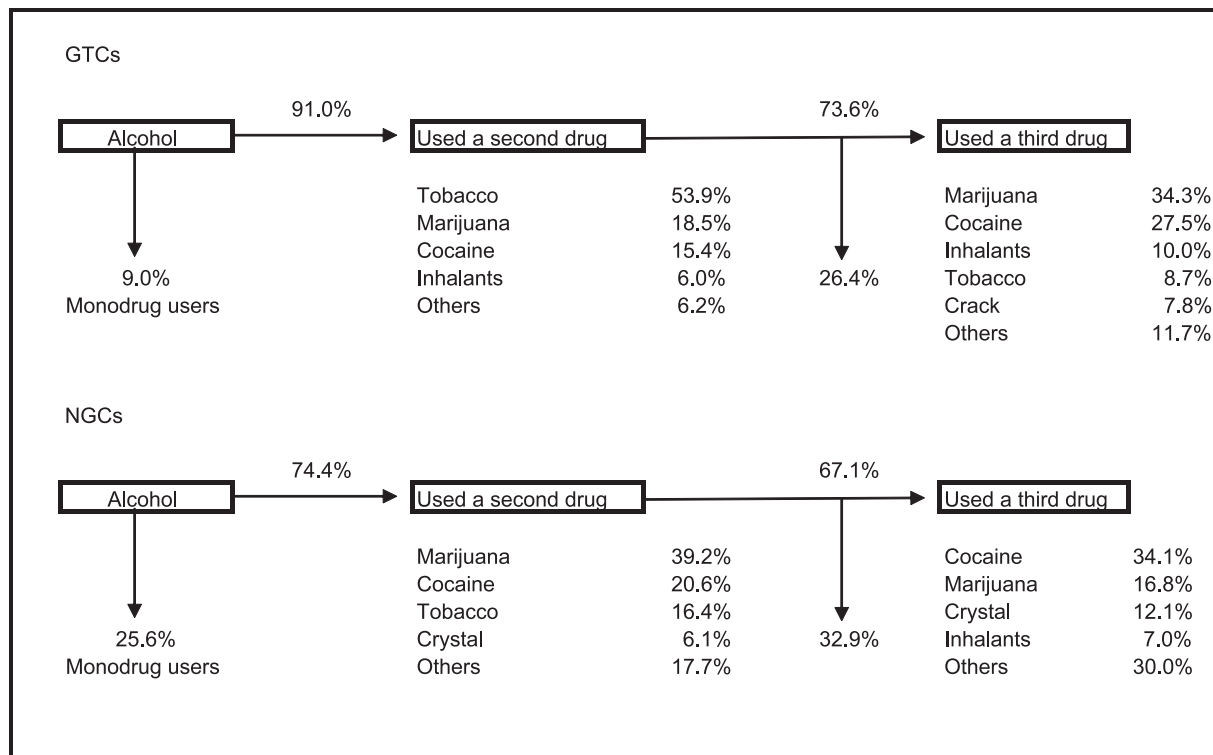
SOURCE: Medical examiners

**Exhibit 8. Natural History of Inhalants Use Among Treatment Patients in Mexico: January–June 2003**



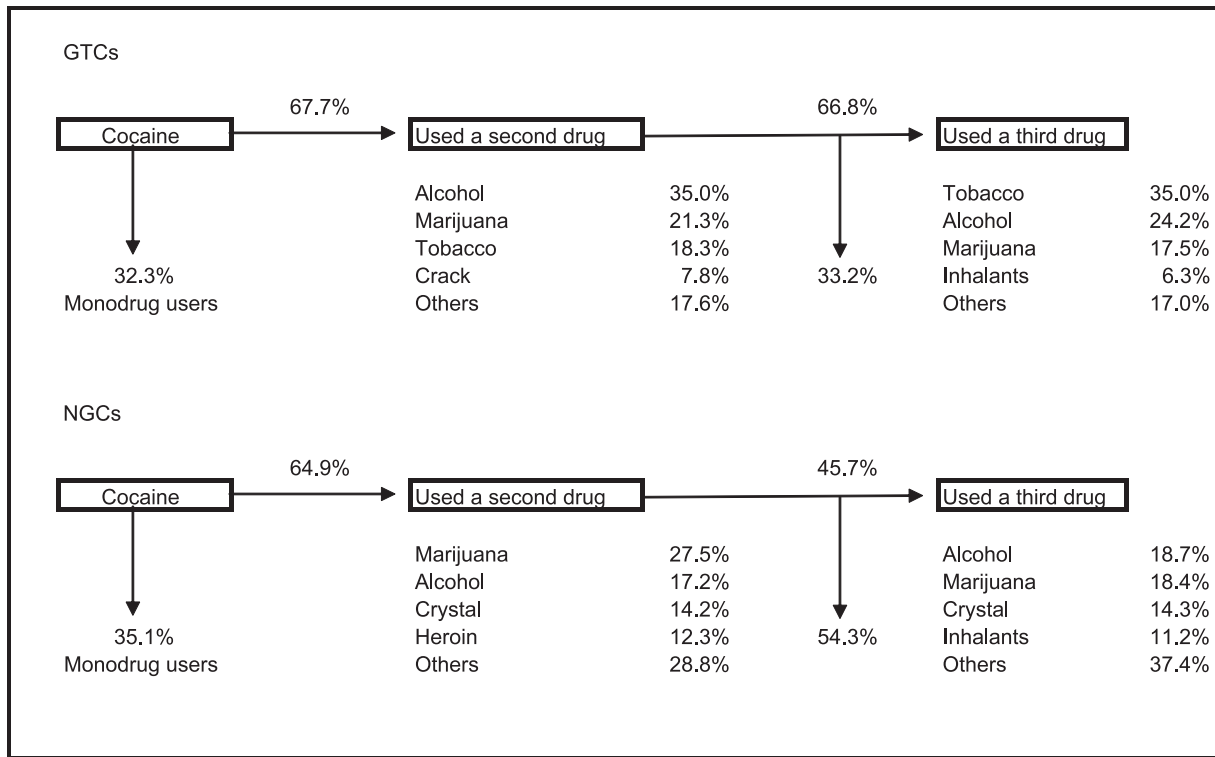
SOURCES: SISVEA—GTCs and NGCs

**Exhibit 9. Natural History of Alcohol Use Among Treatment Patients in Mexico: January–June 2003**



SOURCES: SISVEA—GTCs and NGCs

**Exhibit 10. Natural History of Cocaine Use Among Treatment Patients in Mexico: January–June 2003**



SOURCES: SISVEA—GTCs and NGCs

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National Institute on Drug Abuse  
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