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This publication, *Epidemiologic Trends in Drug Abuse, Volume II,* contains papers presented and data reported at the June 2004 CEWG meeting by CEWG representatives from 20 areas and guest researchers from Ohio and Maine. A paper was also submitted by Mexico. In addition, Volume II contains papers by experts on a panel on prescription drug abuse.

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

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Foreword

This publication includes papers presented at the 56th semiannual meeting of the Community Epidemiology Work Group (CEWG) held in Arlington, Virginia, on June 8–11, 2004, 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 December 2003 CEWG meeting, an expert panel reported data/information on current and emerging trends in prescription drug abuse.

At this meeting, a researcher from Canada reported the most recent data from Canada's drug abuse surveillance systems. Researchers from Mexico also submitted a paper on drug abuse patterns and trends in Mexico, based on Mexico's drug abuse surveillance system.

A keynote address was given by the Honorable John P. Walters, Director, White House Office of National Drug Control Policy. In addition to presentations by CEWG members, guest researchers, and members of the Panel on Prescription Drug Abuse, the meeting included presentations on NIDA's epidemiology research; emerging drugs, based on Drug Enforcement Administration data; and how to access local and State arrest data.

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 their work between meetings, using the Internet, conference calls, and mailings to alert one another to new issues and to follow up on issues and emerging drug patterns identified at meetings. The results of this interim monitoring are often an agenda item at a subsequent meeting.

Moira P. O'Brien
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Introduction

Drug abuse and addiction present a challenge at local, State, and national levels and threaten the well-being of drug abusers and their significant others. The true prevalence of the problem is difficult to measure. 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 on the following page.

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.

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), crack (1983), methamphetamine (1983), and "blunts" (1993). 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 they 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 are cited in their reports.

Epidemiology of Drug Abuse:

Area Papers

Metropolitan Atlanta Drug Use Trends

Kristin J. Wilson, M.A.,[1] Claire E. Sterk, Ph.D.,[2] and Kirk W. Elifson, Ph.D.[1]

ABSTRACT

Cocaine and marijuana continue to dominate the metropolitan Atlanta drug scene. Cocaine indicators stabilized over the past 2 years. Young adult cocaine users are an exception; their use has increased. Cocaine users 35 and older account for most of the cocaine ED mentions and treatment admissions. Marijuana is the most pervasive drug in Atlanta, despite its deficient representation in many epidemiological indicators. The 2003 Youth Risk Behavior Survey conducted by the CDC found that about one-fifth of youth age 10–24 admitted to using marijuana in the month prior to the survey. Epidemiological data indicate that methamphetamine use, which has received a great deal of law enforcement and media attention in recent months, is expanding. However, ethnographic sources suggest a slight decline in use over the past 6 months, perhaps because of law enforcement efforts and public health outreach initiatives. Heroin indicators remain lower in Atlanta than in the Nation, but they are continuing a slight increase. Heroin purity continues to be high and prices are still low compared to other cities. Older users, 35 years and above, account for the largest proportion of ED heroin mentions. Overall, ED mentions are increasing slightly for other opiates/narcotics, whereas treatment data indicate stability. Use of benzodiazepines, amphetamines, and narcotic analgesics is on the rise, but these substances still represent a low overall percentage of drugs abused in Atlanta. Continuing widespread abuse of benzodiazepines such as alprazolam (Xanax) is indicated by the National Forensic Laboratory Information System results and medical examiner mentions. In 2002, ME mentions of prescription drugs (narcotic analgesics and benzodiazepines together) exceeded those for any illicit street drug. Ecstasy continues to be popular among diverse class, age, and ethnic groups in the Atlanta metropolitan area. In addition, LSD is beginning to emerge in the club/party scenes, and it is sometimes mixed with ecstasy.

INTRODUCTION

Area Description

The metropolitan Atlanta area is situated in the northwest corner of Georgia and is comprised of 20 of the State's 159 counties. At just over 6,100 square miles, the metropolitan area is 10.5 percent of Georgia's total size, but with an estimated 4.3 million residents, it holds just over one-half of the State's total population (U.S. Census Bureau 2002). Within the metropolitan area sits the city of Atlanta with a population in 2002 of about 382,831. The city is geographically situated in parts of Fulton County (primarily) and DeKalb County, which constitute 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 ($26,262). The poverty rate inside the city is 25.9 percent, whereas it is 9.5 percent in the metropolitan area. The vacancy rate outside the city is much lower (14.9 percent) than the rate 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,

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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 reports that drug-related offenses accounted for 39.5 percent of 2001 Federal sentences in Georgia; 92 percent of those were for trafficking. The majority of Federal drug sentences (55 percent) also involved cocaine (33 percent crack cocaine and 22 percent powder cocaine).

Data Sources

Principal data sources for this report include the following:

- **Drug abuse treatment program data** are from the Georgia Department of Human Resources. The data represent the primary drugs of abuse among the approximately 7,178 clients admitted to Atlanta's public drug treatment programs in FY 2003 (July 2002–June 2003). Data for the rest of the State were also reported (*n*=21,434).

- **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). These data are estimates of drug mentions among individuals admitted to participating metropolitan Atlanta emergency departments between January 1995 and December 2002. OAS tested percentage changes for statistical significance.

- **Medical examiner (ME) drug mentions data** are from DAWN, OAS, SAMHSA. These data provide the number of Atlanta autopsy cases that mention street drugs or commonly abused pharmaceutical drugs.

- **Arrestee urinalysis data** are from the National Institute of Justice (NIJ), Arrestee Drug Abuse Monitoring (ADAM) program. These data provide estimated drug use among male arrestees in the local Atlanta pretrial detention center as well as local prisons and jails. Data are from 2002 and the first three quarters of 2003. The 2003 total sample size comprises 869 men. The first two quarters, for which demographic data are available, show that 84 percent of arrestees tested were African-American, 14 percent were White, and fewer than 3 percent were Hispanic. The Atlanta ADAM program did not collect information on female arrestees. The findings are weighted and based on probability sampling.

- **Illicit drug price, purity, and trafficking data** were obtained for 2002 and 2003 from the Drug Enforcement Administration (DEA) Domestic Monitoring Program (DMP), and the National Drug Intelligence Center (NDIC). The Atlanta High Intensity Drug Trafficking Area (HIDTA) Task Force, a coordination unit for drug-related Federal, State, and local law enforcement agencies, provided additional 2003 information on price, purity, and trafficking. Information was also provided by the Office of National Drug Control Policy (ONDCP) reports, including *Pulse Check: Drug Markets and Chronic Users in 25 of America's Largest Cities* (January 2004).

- **Youth drug use data** were obtained from the Youth Risk Behavior Survey (YRBS) conducted by the Centers for Disease Control and Prevention (CDC) in 2003.

- **Drug forensic analyses data** were provided from the laboratory results in suspected drug cases throughout Georgia that were reported by the National Forensic Laboratory Information System (NFLIS) in 2003.

- **Ethnographic information** was collected from local drug use researchers and is used to corroborate the epidemiologic drug indicators, to signal potential drug trends, and to place the epidemiologic data in a social context.

- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the Georgia Department of Human Resources (DHR) for cases in Georgia and a 20-county Atlanta metropolitan area from January 1981 through August 2003. Additional information came from the CDC.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine, especially in the form of crack, remains highly available and widely abused in metropolitan Atlanta according to most of the key indicators. The most frequently mentioned illicit drug in EDs and in medical examiner's offices is cocaine. In fact, Atlanta is in the top six cities for cocaine-related ED visits. Cocaine is also the primary drug of choice in 42.8 percent of all treatment admissions in metropolitan Atlanta and in Georgia. The powder form is increasingly popular among young adults, although most epidemiological data still indicate that most users are older.

The DAWN data for 2002 show that the rate of ED mentions for cocaine per 100,000 population decreased only slightly in Atlanta from the previous year (exhibit 1). There were 4,826 mentions of powder cocaine and 4,110 mentions of crack in 2002 (exhibit 2). More than two-thirds of cocaine-related ED visits also involved other drugs. ED mentions were higher among men than women, with a 2.3 to 1 ratio (exhibit 3). From 2000 to 2002, there was a 53.7-percent increase in rates of ED mentions for men. Data from the prior 7 years show a cumulative increase of 55.4 percent in cocaine mentions for women. Of a total of 8,947 cocaine ED mentions in 2002, 15 percent were White, 72 percent were African-American, and 0.5 percent were Hispanic (race/ethnicity was unknown for more than 12 percent of the mentions). This pattern is similar to that for the previous year. The percentage of ED mentions was lower for Whites in Atlanta compared to Whites in the coterminous United States, but, among African-Americans, the rates were comparatively higher. The 2002 ED data by age group remained stable from the previous year, as shown in exhibit 3. For this indicator, there were more users in the 35–44 year age range (67 percent) than any other age group.

There were 155 cocaine-related death mentions in 2002, which is a 14-percent increase from the previous year.

Cocaine was the primary drug of choice for approximately one-half of all treatment admissions in Atlanta over the past several years (exhibit 4), but in the second half of FY 2003, cocaine represented only 40 percent of all admissions. The ratio of men to women in treatment for cocaine was 1.65:1. Approximately three-fourths of cocaine admissions in metropolitan Atlanta were African-Americans. The other one-quarter were mainly Whites, with Hispanics representing less than 1 percent. This distribution across racial/ethnic groups in FY 2003 was consistent with that for FY 2002. In the rest of Georgia in FY 2003, Whites accounted for a larger proportion of cocaine treatment admissions than in metropolitan Atlanta. Whites represented 43 percent of the treatment population outside the Atlanta area, and African-Americans represented 56 percent. In FY 2003, those 35 and older constituted 79.1 percent of Atlanta cocaine treatment admissions. Each of the other age groups (0–17, 18–25, and 26–34) accounted for about 7 percent of the total admissions for whom cocaine was the primary drug of choice, representing about a 1-percent increase from the previous fiscal year. Compared to FY 2002, fewer cocaine users in FY 2003 who were admitted to treatment preferred oral routes. Smoking continued to be the most commonly preferred route, as reported by about 78 percent of those admitted for cocaine treatment.

According to ADAM data for Fulton and DeKalb Counties, in the first three quarters of 2003, nearly 50 percent of the tested male arrestees were cocaine positive (exhibit 5). Approximately 29 percent self-reported acquiring crack, and 12 percent reported acquiring powder cocaine in the 30 days prior to arrest. Demographic data, available only for the first two quarters of 2003, show that about one-half of African-American arrestees and 23 percent of Whites tested cocaine positive. Among Hispanics, who represented a small overall percentage of arrestees, 35 percent were cocaine positive in the first quarter, and twice this proportion (72 percent) tested positive in the second quarter. Positive tests for cocaine increased as arrestees' age increased. For example, in the second quarter of 2003, 36.5 percent of arrestees younger than 25 tested cocaine positive, whereas almost 60 percent of those age 36 and older tested positive for the drug.

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 and NDIC, prices remain relatively stable in Atlanta. Powdered cocaine typically sells for $75–$100 per gram. Crack rocks sell for as little as $3. In 2003, members of the Atlanta HIDTA Task Force seized 186.69 kilograms of powdered cocaine and 7.56 kilograms of crack cocaine. Both quantities were similar to what was seized in 2002.

The Georgia Threat Assessment (DEA 2003) reports that other than marijuana, crack is the most widely available drug in the city. Officials estimate that 75 percent of all drug-related arrests involve crack cocaine. However, crack has become more difficult for undercover officers to purchase, and it seems to have decreased somewhat in popularity. Powder cocaine availability at the retail level in Georgia is limited, except in large cities such as Atlanta. NFLIS reported that cocaine accounted for approximately 40 percent of confiscated substances in suspected drug cases that were tested in forensic laboratories.

Heroin

The indicators of heroin use in Atlanta are mixed. ED mentions were up from 1995 to 2002 and treatment rates were stable. In FY 2003, however, treatment admissions declined. Law enforcement seizures increased in 2003, but deaths declined. Compared nationally, heroin in Atlanta is more pure and less expensive.

The rate of heroin ED mentions in 2002 was 20 per 100,000 population (exhibit 1). The number of ED mentions of heroin in 2002 (*n*=732) was down by more than 100 cases from 2001 (848), but it was a 50.9-percent increase over mentions in 2000. Similar to previous years, a sizeable majority of these cases were male in 2002, with a 3.4:1 male to female ratio per 100,000 (exhibit 6). More heroin ED mentions were made by African-American users than by White users (1.8:1). As in 2001, there were only 13 Hispanics total listed among the heroin ED mentions. Heroin mentions were up significantly by almost 35 percent in the 20–25 year age category. Despite a dip from the previous year among 26–34-year-olds, the 2002 rates were still up by about two-thirds from the 2000 levels. Mentions in 2002 were down significantly from the 2001 data by more than 20 percent among those aged 35–54. This decline was especially dramatic for younger members (35–44) of this category, with about 32 percent fewer ED heroin mentions in 2002 than in 2001. Most (73 percent) of the heroin ED mentions in 2002 were part of multidrug episodes, and the reasons for contact with the emergency departments tended to be overdose or seeking detoxification. The number of patients (273) with heroin mentions admitted to a hospital remained at the high level seen in 2001.

The number of heroin/morphine deaths continued to decline. There were 16 heroin deaths in 2001 and 14 in 2002. This dip is noteworthy in comparison to the 30 deaths in 2000 and 38 deaths in 1999.

Compared to FY 2002, there were 25 percent fewer treatment admissions for users reporting heroin as their primary drug of choice in FY 2003 (exhibit 4). Heroin users accounted for only 6 percent of Atlanta treatment admissions and less than 2 percent of Georgia treatment admissions outside of Atlanta. Admissions for men were double those for women in each half-year period. Slightly more than 50 percent of heroin admissions in Atlanta during FY 2003 were White, 46.6 percent were African-American, and 3.0 percent were Hispanic. This ratio changed from FY 2002, when African-Americans accounted for a slight majority. Outside of Atlanta in FY 2003, Whites were overwhelmingly represented in the heroin treatment admissions. A significant majority of heroin treatment admissions were 35 and older, as in previous reporting periods.

In FY 2002 and in FY 2003, about two-thirds of heroin users admitted to publicly funded treatment programs in metropolitan Atlanta preferred injection as the route of administration. Inhalation was the second most popular route for 22 percent of those admitted for drug treatment with heroin as their primary drug of choice in each half-year period (2000–2003). 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 of choice, continuing a trend seen 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 also chose cocaine as a secondary drug of choice. Tertiary drugs of choice tended to be alcohol or cocaine, although less than 6 percent reported any tertiary drug. Most heroin users administered the drug by injection, followed in popularity by smoking.

According to ADAM data, 3.2 percent of arrested men who were tested for drugs in Fulton and DeKalb Counties in 2002 were positive for opiates (exhibit 5). Similarly, ADAM data for the first three quarters of 2003 show that 3 percent of arrestees tested opiate positive. In 2003, 2.6 percent of arrestees self-reported heroin use in the prior 12 months, averaging 141 days of use. As in recent years, heroin users in 2003 were much more likely to report having ever been in treatment (84.3 percent). They also had the highest rates of inpatient treatment (82 percent) and mental health treatment (49 percent). The 2002 data indicate that more White arrestees (4.3 percent) tested positive than African-Americans (3.1 percent). This gap expanded in the first quarter of 2003, with 12 percent of Whites testing positive, compared with a stable 2.9 percent of African-Americans. This may be anomalous, however, as the second quarter of 2003 shows a more equal balance of 3.1 percent of opiate-positive African-American arrestees and 2.7 percent of opiate-positive White arrestees. In 2002, most heroin users admitted for treatment were aged 31–35, followed closely by arrestees younger than 21. This result is somewhat surprising, given an apparent nationwide drop in adolescent heroin use (DEA 2003; page 41). Most arrestees testing positive for heroin in the first two quarters of 2003 were older than 30, but the second quarter data showed an increase in 26–30-year-olds among those positive for heroin. One-half of the self-reported users arrested in 2002 bought their heroin in an outdoor area. All paid at least partly in cash. By 2003, the vast majority of self-reported heroin buys among arrestees took place

primarily in outdoor areas (75 percent in the first quarter, 84 percent in the second quarter).

The NDIC's *Georgia Threat Assessment* (April 2003) reports that heroin is "commonly available" in metropolitan Atlanta and available in other metropolitan areas in Georgia. Most of the heroin comes from South America and costs between $80 and $110 per gram. The DEA tested 19 samples purchased undercover, which averaged 57.1 percent pure. Only small quantities of Mexican brown powdered heroin and black tar heroin have been identified in Georgia, and these averaged only about 33 percent pure. Working with the U.S. Customs Service, 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. The HIDTA Task Force seized a total of 44.12 kilograms of heroin in metropolitan Atlanta in 2003.

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. Some of that heroin is sold in Atlanta and some is shipped elsewhere.

Other Opiates/Narcotics

Most indicators suggest that narcotic pain relievers are not as widely abused in Atlanta as they are in most other CEWG cities. However, there was a marked increase in the number of deaths involving these drugs.

The rate of ED mentions of narcotic analgesics/combinations per 100,000 population declined 27 percent in Atlanta from 1995 to 2002, compared with the 139-percent increase nationally during that period. The 2002 Atlanta DAWN data indicate 30 ED mentions per 100,000 population for narcotic analgesics/combinations. Narcotic analgesics accounted for most of these at 24 mentions per 100,000 (exhibit 7). This increase continued a general upward trend. ED mentions for codeine/combinations were up slightly in 2002 to 45 (1 per 100,000 population). In 2002, the DAWN data included 18 mentions for codeine, 27 for acetaminophen-codeine, and 168 for hydrocodone/combinations. There were 92 total mentions of methadone in 2002 and 162 in 2001, representing a 43.2-percent decline. In 2002, the rate of oxycodone/combinations ED mentions was 4 per 100,000 population. The rate for oxycodone alone was 3 per 100,000 population, a significant increase (88.8 percent) from 2000.

There were 106 deaths in 2002 related to use of narcotic analgesics, mainly oxycodone and hydrocodone. This represents a gradual increase since 1999. In 2001, for example, there were 79 deaths in Atlanta involving narcotic analgesics. In addition, there were 11 methadone-related deaths in 2002.

Treatment data for other opiates or narcotics were only available for secondary and tertiary drug abuse categories. Continuing a stable trend, other opiates accounted for about 2–3 percent of secondary drugs abused and about 1 percent of tertiary drugs abused in FY 2003.

According to NFLIS data, oxycodone and hydrocodone each accounted for about 1 percent of lab identifications of drugs seized by law enforcement in 2003.

OxyContin, the most widely recognized oxycodone product, is a growing drug threat in Georgia, according to the DEA. Twenty-milligram tablets sold on the illegal market for $20 in 2002. Hydrocodone (Vicodin) and hydromorphone (Dilaudid) are also abused in Atlanta. These drugs are obtained by "doctor-shopping" or by purchasing from dealers. Some dealers steal prescription pads or rob pharmacies. Several incidents were reported in Georgia in 2003.

Marijuana

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

The rate of marijuana ED mentions in Atlanta was stable at 96 per 100,000 population in 2002, the same rate as in 2001 (exhibit 1), but it increased 53 percent from 1995 to 2002. There were twice as many marijuana mentions for men as women. The number of ED marijuana mentions was also nearly double among African-Americans compared to Whites, with a ratio of 1.8:1. African-American marijuana mentions showed a significant increase (46 percent) from 2000 to 2002, but the 2002 numbers paralleled those from 2001. Forty percent of the marijuana mentions were among adults age 35 and older. ED mentions among patients age 18–25 totaled 971, and those for the 26–34 age group totaled 958. The only significant change from 2000 onward was among 18–19-year-

olds for whom mentions increased 76 percent between 2000 and 2002.

Atlanta had 42 marijuana-involved death mentions in 2002.

One-fifth of public treatment admissions in FY 2003 in metropolitan Atlanta were for those who considered marijuana their primary drug of choice (exhibit 4). This proportion is up from the 18.7 percent of treatment admissions for marijuana reported in FY 2002. The FY 2002 data indicate a smaller gap between males and females (1.9:1) than that in FY 2003 (2.3:1). About 57 percent of Atlantans who identified marijuana as their primary drug of choice in FY 2002 and FY 2003 were African-American. The vast majority of users (approximately 79 percent) in FY 2002 were at least 35 years old, rising only slightly to about 80 percent in the FY 2003 data. The numbers of youth and young adults admitted for treatment remained stable in FY 2003. Each group accounted for about 20 percent of admissions. Alcohol was the most popular secondary drug of choice for marijuana users, followed by cocaine (14 percent).

Approximately 42 percent of male arrestees in DeKalb and Fulton Counties during the first three quarters of 2003 tested positive for marijuana use (exhibit 5), an increase of nearly 8 percentage points from 2002. The percentages of positive tests were up noticeably in every age category in the first two quarters of 2003. About 80 percent of arrestees younger than 21 in the second quarter of 2003 tested positive for marijuana. In contrast to the pattern of cocaine-positives, the percentage of marijuana-positives decreased as age increased among arrestees. For example, only 23.3 percent of arrestees older than 36 were positive for marijuana.

Slightly 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 before arrest, a proportion considerably higher than that for those testing positive for the four other major drugs. These figures remained relatively stable in 2003. Arrestees who reported the circumstances of their last drug buy said they purchased marijuana from a wide variety of places, compared with buyers of other illicit drugs.

Marijuana, which is readily available in Atlanta and the rest of Georgia, retails for about $5–$10 per gram in Atlanta, according to NDIC (December 2003). Most of the marijuana in Georgia comes from Mexico, although locally grown marijuana is also on the market (NDIC and DEA 2003, page 11). Colombian and Jamaican marijuana is purportedly present but less available.

Marijuana seizures increased 150 percent between 2002 and 2003, with HIDTA Task Force officers confiscating 1,741.17 kilograms of bulk marijuana and 210 cannabis plants.

Ethnographic data continue to consistently support treatment and law enforcement data that indicate the widespread availability and use of marijuana in Atlanta. Hydroponic marijuana remains desirable among users.

Stimulants

Methamphetamine is the most abused stimulant in Atlanta, and its use is increasing. Law enforcement efforts to stop the spread of this drug have involved seizures and closing down clandestine labs. Moreover, frequent media reports, such as a June 6, 2004, *Atlanta Journal and Constitution* cover story on methamphetamine in Georgia, fuel the growing concern over the dangers the drug poses. Methamphetamine is not only a party drug, but it is also used for weight loss or as a way to keep up with demanding work schedules.

The rate of methamphetamine ED mentions per 100,000 population was 7 in 2002 (exhibit 8). The rate increased nearly 19 percent from 1995 to 2002, 70 percent from 2000 to 2002, and 39 percent from 2001 to 2002. In 2002, the ratio of men to women among methamphetamine ED mentions was 3:1. Whites accounted for 59 percent of methamphetamine ED mentions, while African-Americans accounted for 20 percent. ED mentions increased significantly in one or more of the three testing periods for every age group.

No methamphetamine-involved deaths were reported in the 2002 DAWN data.

There were 16 ED mentions of amphetamines per 100,000 population in 2002. The gap between male and female ED mentions for amphetamines was narrow, with a male to female ratio of 1.5:1. Most age groups showed a steady increase in ED mentions for amphetamines over the past several years, with the increases being significant from 2000 to 2002 for the 6–17 and 18–25 age groups.

The proportion of treatment admissions in Atlanta for patients listing methamphetamine as their primary drug of choice increased in FY 2003 (exhibit 4). The ratio of male to female methamphetamine admissions decreased some in Atlanta, but in treatment centers

outside of Atlanta, the number of women slightly exceeded that for men. Most users were White; in fact, they accounted for 97 percent of treatment admissions in FY 2003. Nevertheless, the proportions of African-American and Hispanic users are growing.

The ADAM data indicate that 2 percent of the male arrestees tested positive for methamphetamine in the first three quarters of 2003 (exhibit 5). The 26–30 age group accounted for the highest percentage of positive methamphetamine tests in the first two quarters of 2003, and this represented a sharp increase from previous years.

According to the DEA and HIDTA, methamphetamine popularity continues to rise, in part because of its low price and availability. A gram now sells for $75–$100.

Methamphetamine accounted for about 23 percent of NFLIS tests of seized drugs in 2003, ranking third after cocaine and marijuana. The HIDTA task force seized more methamphetamine in 2003 than in previous years. These seizures in 2003 included 11.3 kilograms of methamphetamine and 8.5 kilograms of crystal methamphetamine or "ice." HIDTA investigators also report an increase among African-Americans using methamphetamine in Atlanta. Ethnographic data from Atlanta-area drug research studies among 18–25-year-olds support this trend.

Depressants

The use of depressants, especially benzodiazepines, is on the rise in Atlanta. The most commonly abused benzodiazepine is alprazolam (Xanax). Only a few people admitted for drug treatment chose benzodiazepines as their secondary or tertiary drug of choice, but ED and ME mentions for these drugs continued to increase slightly.

The number of ED mentions of barbiturates (250), benzodiazepines (1,267), and miscellaneous other depressants (228) increased insignificantly from 2001 to 2002. The rate per 100,000 population for ED mentions of "anxiolytics, sedatives, and hypnotics" in 2002 was 47. Benzodiazepines accounted for the majority, at 34 per 100,000 population. ED mentions of depressants remained stable in Atlanta during the 7-year period (1995–2002).

ME mentions for benzodiazepines have steadily increased. There were 63 benzodiazepine-involved deaths in Atlanta during 2002.

The treatment data from publicly funded programs include depressants such as barbiturates and benzodiazepines only as secondary and tertiary drug choices. In metropolitan Atlanta, about 1 percent of primary heroin users chose benzodiazepines as a secondary drug choice, as did 2 percent of methamphetamine users. These FY 2003 percentages are consistent with the figures from the previous 2 years.

The DEA considers benzodiazepines and other prescription depressants to be a minor threat in Georgia. The pills are widely available on the street, but their abuse does not seem to have reached the levels of oxycodone and hydrocodone abuse. According to the NDIC and DEA *Georgia Threat Assessment* (April 2003), local dealers tend to work independently and typically sell to "acquaintances and established customers." These primarily White dealers and abusers steal prescription pads, rob pharmacies, and attempt to convince doctors to prescribe the desired pills. Newspaper accounts of prescription pad thefts and the prosecution of an Augusta medical office manager substantiate this trend.

Hallucinogens

The epidemiological indicators and law enforcement data do not indicate much hallucinogen use in Atlanta. Despite these data, there was an increase in ethnographic mentions of LSD in the past 6 months.

In Atlanta, there was a decline in ED mentions for LSD in 2002. There were only 18 total mentions in 2002, compared with 80 in 2001. Most of the 2002 ED mentions involved men rather than women (8:1). Between 2001 and 2002, LSD ED mentions declined by 90.9 percent for females and 70.4 percent for males. Whites (n=6) had slightly fewer ED mentions for LSD than African-Americans (9). In 2002, there were 11 mentions in the 18–25 age group, 3 in the 26–34 age group, and 2 for those 35 and older. Almost all age groups showed a decline in rates of ED mentions of LSD.

The DAWN data provided little information on ED mentions of PCP. ED mentions of PCP rose insignificantly for African-Americans from 10 in 2001 to 17 in 2002. 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. In

FY 2003, PCP was listed 4 times as a secondary drug of choice and twice as a tertiary drug out of a total of 14,108 people receiving treatment. These numbers were consistent with those in FY 2002. "Other hallucinogens" were listed 25 times as a secondary drug of abuse and 36 times as a tertiary drug; this pattern represents a decline from FY 2002.

According to ADAM data, no male arrestees tested positive for PCP (the only hallucinogen listed) in 2003.

LSD accounted for only 0.04 percent of drugs analyzed by NFLIS in 2003. While ED mentions indicate a decline in rates, the DEA reports an increase in the availability of LSD, especially among White traffickers/users age 18–25. LSD is usually encountered in school settings and is imported through the U.S. Postal Service.

Club Drugs

Although abuse of methylenedioxymethamphetamine (MDMA or ecstasy) appears to be declining, the drug continues to spread to more diverse populations in Atlanta. Other club/party drugs are also barely registering in the epidemiological data, but they still are encountered frequently in ethnographic contexts.

ED mentions of MDMA declined 43 percent to 118 cases in 2002 from an all-time high of 175 cases in 2001. The MDMA rate in 2002 was 3 per 100,000 population (exhibit 8). Ecstasy ED mentions varied substantially by gender and race, as in previous years. ED mentions for males were twice those for females (2.1:1). Continuing a 3-year trend, the racial breakdown was about evenly split between African-American and White users. In 2002, there were only 6 ED mentions of MDMA among 12–17-year-olds, in contrast to the 26 mentions in 2001, a decline of 77 percent. Young adults (18–25) represented the most MDMA mentions, followed by 26–34-year-olds (57 and 41, respectively). Eighty-four percent of MDMA ED mentions were part of multidrug episodes. There were 9 ketamine ED mentions and 40 GHB mentions in 2002.

The NFLIS reported that in 2003, MDMA accounted for about 1.5 percent of tested substances in suspected drug cases. The ONDCP's *Pulse Check* (2004) reports that ecstasy was less difficult for undercover officers to buy and that recent adulterants included ketamine, gamma hydroxybutyrate (GHB), methamphetamine, amphetamine, and dextromethorphan. The NDIC and DEA *Georgia Threat Assessment* (April 2003) indicated that most ecstasy dealers are middle and upper class White high school and college students between 18 and 25 years of age. The drug retails for $25–$30 per tablet, according to a July 2003 report by the NDIC, although ethnographic data specify that many users buy in bulk. Users report that bulk ecstasy rates are $5–$10 per pill.

Other Drugs

In 2002 there were nine total ED mentions in Atlanta for inhalants; all represented men, and most were for Whites. The majority of mentions were for those in the 26–34 age range. Of the nine patients involved with inhalants, six were treated and released and three were admitted to the hospital. There were 193 ED mentions for SSRI antidepressants in 2002, which represented a 35.2-percent decline from 2001.

Treatment data for "other drugs" are only available for secondary and tertiary drug abuse categories, including inhalants and "other" drugs. Inhalants, most commonly mentioned in the nonmetropolitan counties, were listed nine times as a secondary drug of abuse and six times as a tertiary drug of abuse.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Georgia ranks eighth in the Nation for the number of total AIDS cases. At the end of 2001, it was ninth. In 2002, there were 182.7 HIV cases per 100,000 population in Georgia. AIDS cases were 17.2 per 100,000 population in 2002, which represented a decline from the previous year. Approximately 746 new AIDS cases were reported in the State between January and August 2003, for a cumulative total of 12,683 people living with AIDS. HIV surveillance nationwide indicates a steady increase in new infections.

Nearly 54 percent of these new cases were African-American males, and 24 percent were African-American females. Men accounted for 71 percent of HIV/AIDS cases nationally. In Georgia, 81 percent of the new AIDS cases were older than 30, with the numbers evenly split between the 30–39 and the 40–49 age categories. Most of the new AIDS cases in Georgia were from Atlanta's Fulton and DeKalb Counties.

New cases of sexually transmitted diseases identified in Georgia in 2003 included chlamydia (*n*=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.

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U.S. Bureau of the Census (2003).

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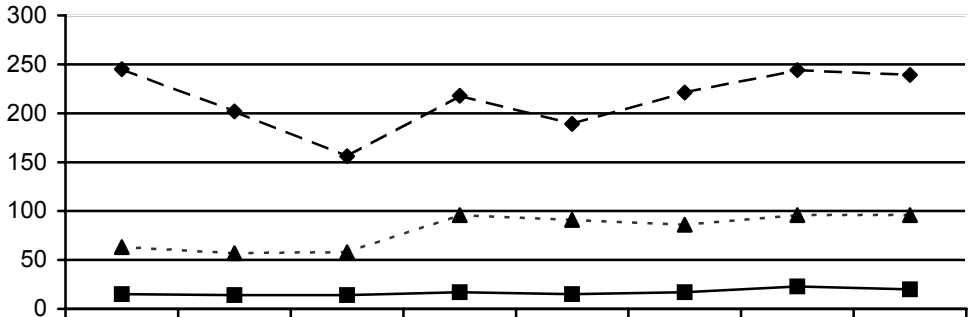
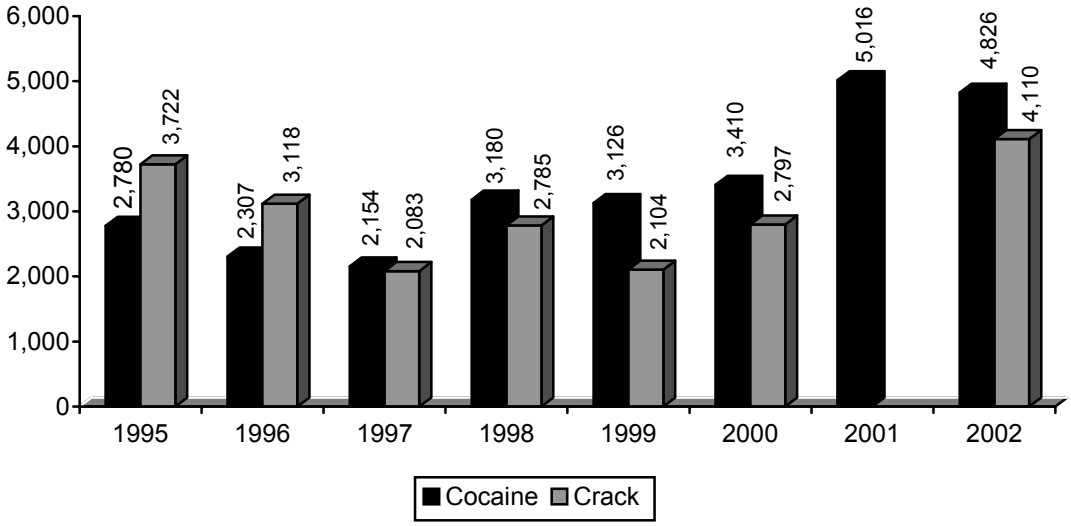
Exhibit 1. Rates of ED Mentions per 100,000 Population in Atlanta for Cocaine, Marijuana, and Heroin: 1995–2002



	1995	1996	1997	1998	1999	2000	2001	2002
Cocaine	245	202	156	218	189	221	244	239
Heroin	15	14	14	17	15	17	23	20
Marijuana	63	57	58	96	91	86	96	96

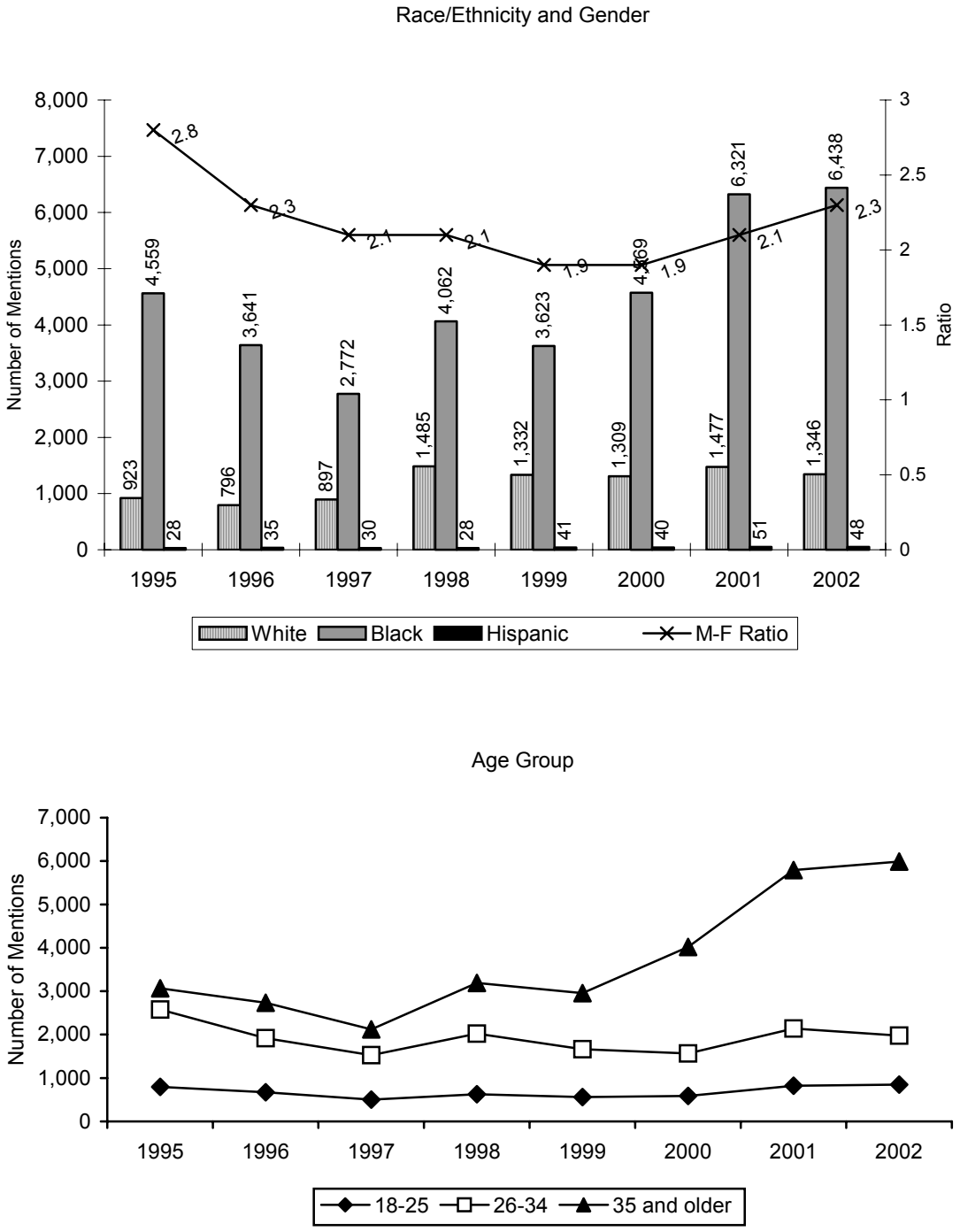
SOURCE: DAWN, OAS, SAMHSA

Exhibit 2. Numbers of ED Mentions of Powder Versus Crack Cocaine in Atlanta: 1995–2002[1]



[1]Crack data were suppressed in 2001 because of incomplete data.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 3. Atlanta Cocaine ED Mentions by Race/Ethnicity, Gender, and Age Group: 1995–2002



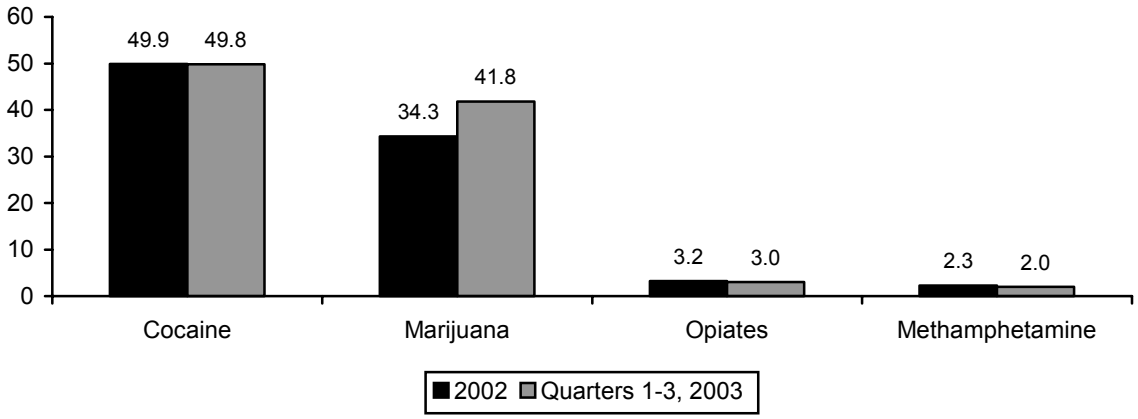
SOURCE: DAWN, OAS, SAMHSA

Exhibit 4. 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	42.8
Heroin	6.6	6.7	7.6	6.3
Marijuana	16.0	15.5	18.7	20.0
Methamphetamine	1.5	1.6	3.1	5.1
Other Drugs[1]	17.6	26.1	21.3	25.8
Total Admissions (*N*=)	**(6,990)**	**(7,996)**	**(7,909)**	**(7,178)**

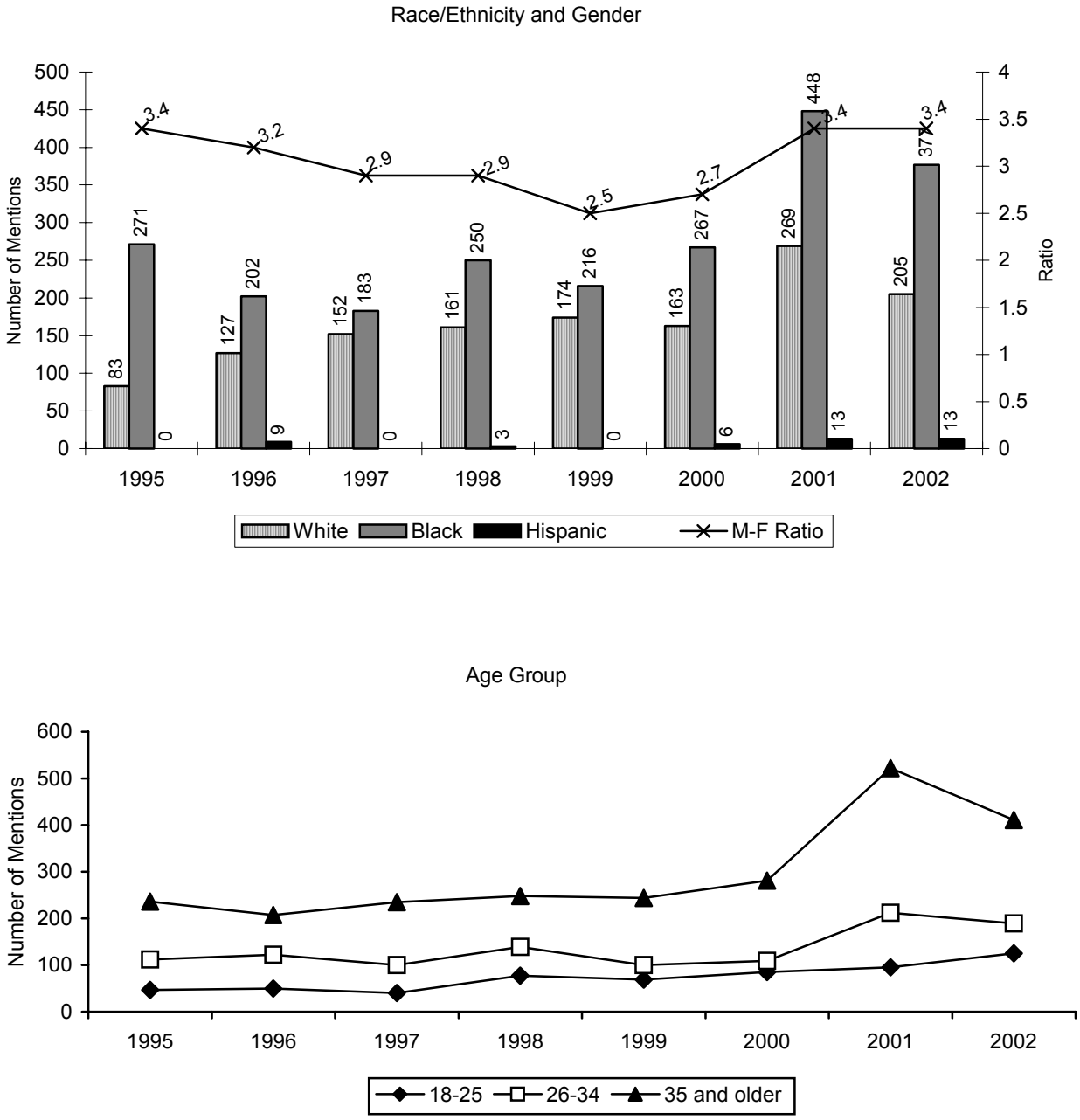
[1]Includes "alcohol-in-combination."
SOURCE: Department of Human Resources

Exhibit 5. Percentages of Male Arrestees Testing Positive, by Drug, in Atlanta: 2002–2003



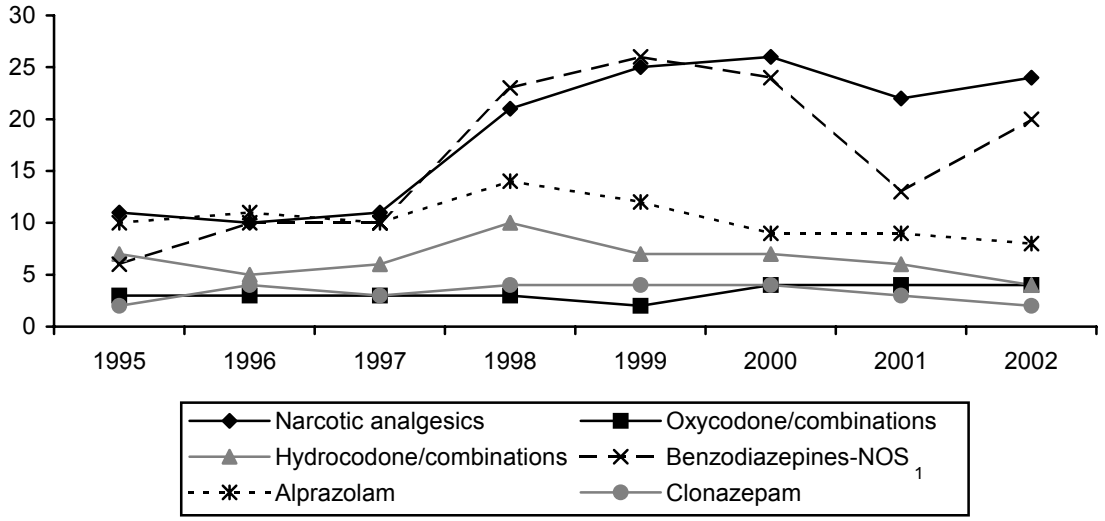
SOURCE: ADAM, NIJ

Exhibit 6. Atlanta Heroin ED Mentions by Race/Ethnicity, Gender, and Age Group: 1995–2002



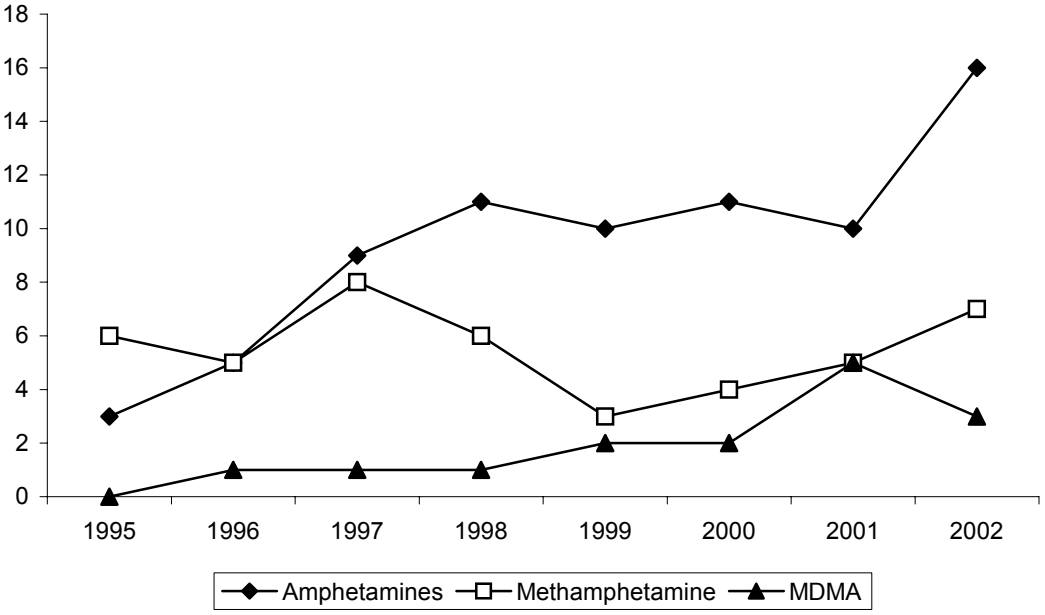
SOURCE: DAWN, OAS, SAMHSA

Exhibit 7. Rates of ED Mentions per 100,000 Population in Atlanta for Selected Narcotic Analgesics and Benzodiazepines: 1995–2002



[1]NOS=Not otherwise specified.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 8. Rates of Mentions Per 100,000 Population for Methamphetamine, MDMA, and Amphetamines: 1995–2002



SOURCE: DAWN, OAS, SAMHSA

Drug Use in the Baltimore Metropolitan Area: Epidemiology and Trends, 1999–2003 (First Half)

Leigh A. Henderson, Ph.D., and Doren H. Walker, M.S.[1]

ABSTRACT

Heroin indicators (treatment admission rates, rates of ED mentions, and heroin-related deaths) had declined or stabilized between 1999 and 2001, but they increased in the most recent time periods. ED mentions of heroin increased from 195 per 100,000 population in 2001 to 203 per 100,000 population in 2002. Although the heroin ED mention rate declined among those aged 18–25, it increased among those aged 35 and older. Deaths related to heroin increased from 349 in 2001 to 411 in 2002. Treatment admissions for primary heroin use increased in the first half of 2003 to a projected annual rate of 848 admissions per 100,000 population age 12 and older, compared with 823 per 100,000 in 2002. Treatment admissions for heroin injection comprised two distinct populations: an aging African-American population and young White users, while treatment admissions for intranasal heroin use were comprised predominantly of an aging African-American population. Cocaine indicators also began to increase after 2001. ED mentions of cocaine increased from 214 per 100,000 population in 2001 to 257 per 100,000 in 2002. Deaths related to cocaine increased from 248 in 2001 to 299 in 2002. Cocaine remained highly prevalent among drug-related treatment admissions in the Baltimore PMSA, with 13 percent reporting primary use and another 37 percent reporting secondary or tertiary use. The cocaine treatment admission rate increased from 164 per 100,000 population age 12 and over in 2001 to 208 per 100,000 in 2002, and it was projected to increase to 228 per 100,000 in 2003. Indicators of marijuana use also increased. The marijuana ED rate increased in 2002 over 2001 among all age groups, for both males and females, and for both Whites and African-Americans. The annual marijuana treatment admission rate increased from 207 per 100,000 population age 12 and over in 2001 to 232 per 100,000 in 2002; it was projected to reach 236 per 100,000 in 2003. Almost one-half (46 percent) of marijuana treatment admissions were younger than 18, and 63 percent entered treatment as the result of a judicial process. For opiates and narcotics other than heroin, indicators increased over the past several years. ED mentions of narcotic analgesics and narcotic analgesic increased from 114 mentions per 100,000 population in 2001 to 165 per 100,000 in 2002. They made up 16 percent of all drugs mentioned in ED episodes in 2002 and were reported in 30 percent of all drug-related ED episodes. Treatment admission rates for opiates other than heroin more than doubled between 1999 and 2002, from 19 per 100,000 population age 12 and over to 44 per 100,000; the rate was projected to reach 52 per 100,000 in 2003. Deaths related to narcotic analgesics increased from 122 in 1999 to 236 in 2002. Stimulants were rarely mentioned as the primary substance of abuse by treatment admissions. Amphetamines were present in 2 percent of drug-related ED episodes. ED mentions of MDMA remained low and declined from 75 mentions in 2001 to 64 mentions in 2002 (3 per 100,0000 population).

INTRODUCTION

Area Description

The Baltimore primary metropolitan statistical area (PMSA) was home to some 2.6 million persons in 2003. It comprises Baltimore City and the suburban counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's. Baltimore City is the largest independent city in the United States. The city's population declined by an estimated 14 percent during the 1990s, falling from 735,000 in 1990 to 633,000 in 1999. The 2000 census, however, reported the population as 649,000; this declined to 629,000 in 2003. The population of the surrounding counties has grown from approximately 1.7 million in 1990 to 2.0 million in 2002.

The city and the suburban counties represent distinctly different socioeconomic groups. In 2000, median household income in the city was $30,000, and 23 percent of the population lived in poverty. In the suburban counties, however, median household income ranged from $51,000 to $74,000, and the poverty rate ranged from 4 to 7 percent. The 2000 population composition of the city differed markedly

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from that of the surrounding counties: 32 percent White and 65 percent African-American, versus 81 percent White and 15 percent African-American, respectively. There were few persons of Hispanic or other ethnic origins in the area.

The Baltimore area is a major node on the north-south drug trafficking route. It has facilities for entry of drugs into the country by road, rail, air, and sea. Baltimore is located on Interstate 95, which continues north to Philadelphia, New York, and Boston, and south to Washington, DC, Richmond, and Florida. Frequent daily train service is available on this route. The area is served by three major airports (Baltimore-Washington International Airport in Baltimore County and Reagan National and Dulles Airports in the vicinity of Washington, DC, approximately 50 miles from the Baltimore City center). Baltimore is also a significant active seaport. The area has numerous colleges and universities and several military bases.

Data Sources

Data sources for this report are detailed below:

- **Population and demographic data**, including population estimates for 1990–2002 and income and poverty estimates for 2000 for Maryland counties, were derived from U.S. Bureau of the Census data (electronic access: <http://factfinder.census.gov> last accessed June 13, 2004).

- **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 the Baltimore PMSA for 1998 through 2002.

- **Mortality data** were provided by DAWN, OAS, SAMHSA, for the Baltimore PMSA for 2002.

- **Treatment admissions data** were provided by the Maryland Alcohol and Drug Abuse Administration, Department of Health and Mental Hygiene, for 1999 through the first half of 2003. Data are presented for the PMSA as a whole, as well as separately for Baltimore City and the suburban counties. Included are those programs receiving both public and private funding. All clients are reported, regardless of individual source of funding. Significant omissions are the Baltimore City and Fort Howard Veterans' Administration Medical Centers, which do not report to the State data collection system.

- **Heroin price and purity data** were provided by the Drug Enforcement Administration's (DEA) Domestic Monitor Program (DMP) for 2003. The data are preliminary.

- **Illicit drug prices** were provided by the National Drug Intelligence Center, *Narcotics Digest Weekly* 2(50), December 16, 2003, for July 2003–December 2003.

- **Data on drug seizures** were provided by the National Forensic Laboratory Information System (NFLIS).

- **Data on infectious diseases related to drug abuse** were provided by the Maryland Department of Health and Mental Hygiene, Acquired Immunodeficiency Syndrome (AIDS) Administration, "The Maryland 2003 HIV/AIDS Annual Report," pp. 7, 9, 31–33, 55, 77–78 (electronic access: <http://www.dhmh.state.md.us/AIDS/epictr.htm> last accessed June 15, 2004).

DRUG ABUSE PATTERNS AND TRENDS

Polydrug use in general appears to be the norm in the Baltimore PMSA. Three-quarters of drug-related treatment admissions in the first half of 2003 reported problems with at least one substance other than their primary substance. An average of 1.8 drugs was mentioned per ED visit in 2002. In 2002 (the latest year for which mortality data were available), multiple drugs were found in the vast majority of the 600 drug-involved deaths. Only 11 percent of the deaths involved a single drug—27 percent involved two drugs, 27 percent involved three, and 35 percent involved four or more. The average number of drugs found was 3.1.

The NFLIS reported testing of some 33,000 items in Baltimore in 2003. Of these items, 47 percent were cocaine, 33 percent were heroin, and 21 percent were cannabis. The remainder (less than 1 percent) were phencyclidine (PCP) and noncontrolled non-narcotic drugs.

Cocaine/Crack

Cocaine indicators (treatment admission rates, rates of ED mentions, and cocaine-involved deaths) all began to increase in 2001 (exhibit 1). The rate of cocaine-related ED episodes (257 per 100,000 population for 2002) represented a significant increase over the previous year. Deaths associated with cocaine increased from 248 in 2001 to 299 in 2002. Virtually all (93 percent) of the deaths in 2002 also involved other substances—22 percent involved one other sub-

stance, 31 percent involved two other substances, and 40 percent involved three or more other substances. Cocaine remained highly prevalent among treatment admissions in the Baltimore PMSA as a primary and secondary substance of abuse. The cocaine treatment admission rate increased from 164 per 100,000 population age 12 and over in 2001 to 208 per 100,000 in 2002, and it was projected to increase to 228 per 100,000 in 2003 (exhibit 2).

Cocaine use in the indicator data was generally associated with the use of alcohol and other drugs as well. Almost all (84 percent) cocaine-related ED episodes involved another drug in addition to cocaine (exhibit 3), as did 65 percent of treatment admissions for smoked cocaine (exhibit 4). While cocaine was reported as a primary substance by 13 percent of Baltimore PMSA treatment admissions in the first half of 2003, it was reported as a secondary substance by an additional 37 percent (exhibit 2).

Crack cocaine represented about 74 percent of the treatment admissions for primary cocaine use in the Baltimore PMSA in the first half of 2003 (exhibit 2). The population in treatment for cocaine smoking has aged (exhibit 5). Almost three-quarters (72 percent) were age 35 or older in the first half of 2003 (exhibit 4). The median age at admission to treatment was 39 years, compared with 35 in 1999. Almost one-half (45 percent) of those in treatment for smoking cocaine were women, and two-thirds (67 percent) were African-American. Well over one-half (60 percent) of the crack smokers had been in treatment before, and most (68 percent) were referred through sources outside the criminal justice system. Daily crack use was reported by 42 percent, and use of other drugs in addition to crack was reported by about two-thirds (65 percent). Alcohol was the most common secondary drug (used by 47 percent), followed by marijuana (20 percent) and opiates used intranasally (14 percent). Only 5 percent of crack smokers reported opiate injection.

Prices for powdered cocaine for the second half of 2003 were reported as $20,000–$32,000 per kilogram at the wholesale level; $750–$1,200 per ounce at midlevel; and $50–$200 per gram or $10 per vial at the retail level. Prices for crack cocaine were reported as $20,000–$26,000 per kilogram at the wholesale level; $650–$1,400 per ounce at midlevel; and $100–$175 per one-eighth ounce, $50–$200 per gram, or $10–$40 per piece at the retail level.

Heroin

Heroin indicators for the Baltimore metropolitan area as a whole generally indicated an increase over 2001 levels (exhibit 1). The rate of heroin ED mentions (203 per 100,000 population in 2002) represented a significant 4-percent increase from 195 per 100,000 in 2001. A significant decrease of 9 percent in the rate of heroin ED mentions among those age 18–25 between 2001 and 2002 was offset by a significant 10-percent increase in the rate among those age 35 and older. Treatment admissions for primary heroin use increased in the first half of 2003 to a projected annual rate of 848 admissions per 100,000 population age 12 and older, compared with 823 per 100,000 in 2002 (exhibit 2).

Deaths associated with heroin increased from 349 in 2001 to 411 in 2002. Virtually all (91 percent) of the deaths in 2002 also involved other substances—23 percent involved one other substance, 29 percent involved two other substances, and 39 percent involved three or more other substances.

Heroin use in the Baltimore metropolitan area is complex. There are several groups of heroin users that differ by urbanicity, route of administration, age, and race. In the first half of 2003, the heroin treatment admission rate was almost five times higher in Baltimore City than in the suburban counties (exhibit 2).

In Baltimore City, intranasal use was the preferred route of administration among treatment admissions (exhibit 6), and the admission rate for intranasal use was 10 percent higher than for injection. In the suburban counties, however, the rate for heroin injection was 44 percent higher than for inhalation.

Exhibit 7 compares the number of treatment admissions in the first half of 2003 by age and race for heroin injection and heroin inhalation. Baltimore has a core of older African-American heroin users, both injectors and intranasal users. White users entering treatment for heroin were younger and were predominantly injectors.

In the total PMSA, the proportion of White heroin injectors entering treatment was 49 percent in the first half of 2003 (exhibit 8). The proportion of admissions younger than 26 was 21 percent. In the suburban counties, 33 percent of admissions in the first half of 2003 were younger than 26. The median age at admission for heroin injectors was 40 in Baltimore City and 32 in the suburban counties. Women accounted for 41 percent of admissions in the total PMSA. Most persons in the PMSA reported daily use (78 percent), and relatively few had been referred through the criminal justice system (17 percent). The proportion receiving treatment for the first time was 28 percent in the first half of 2003. Use of other

drugs was reported by 75 percent of heroin injectors entering treatment: 49 percent used cocaine by routes other than smoking, 12 percent smoked cocaine, 23 percent had an alcohol problem, and 11 percent used marijuana.

Among heroin intranasal users in the total PMSA (exhibit 9), most admissions were African-Americans (82 percent) age 26 and older (92 percent). The median duration of use before first entering treatment was 11 years. Women made up 45 percent of admissions for heroin intranasal use. The proportion of intranasal users younger than 26 decreased from 13 percent in 1999 to 8 percent in the first half of 2003. The median age at admission was 37. More than two-thirds (72 percent) reported daily heroin use. Intranasal users were more likely than injectors to be referred through the criminal justice system (26 percent) and to be receiving treatment for the first time (34 percent). Heroin intranasal users were somewhat less likely than injectors to report use of other drugs (70 percent), and the drugs used were different. Cocaine smoking was much more common among heroin intranasal users (38 percent), and 14 percent reported using cocaine by other routes. Alcohol use, at 25 percent, was similar in the two groups, but marijuana use was somewhat higher among intranasal users (14 percent).

Heroin purity remained low in 2003, at 35 percent for South American heroin, below the national metropolitan average of 42 percent. The price also remained low, at $0.34 per milligram pure, compared with $0.89 per milligram pure as the national metropolitan average. Heroin was predominantly from South America, although heroin from Southeast and Southwest Asia was also reported.

Prices for heroin for the second half of 2003 were reported as $84,000–$125,000 per kilogram at the wholesale level; $1,500–$3,250 per ounce at mid-level; and $80–$115 per gram, $40 per vial, $10–$20 per bag, or $10 per capsule at the retail level.

Other Opiates and Narcotics

For opiates and narcotics other than heroin, indicators have increased over the past several years (exhibit 1). Narcotic analgesics and narcotic analgesic combinations have been mentioned with increasing frequency in drug-related ED episodes. In 2002, they were mentioned at a rate of 165 per 100,000 population, significantly more than the 114 mentions per 100,000 reported in 2001. Narcotic analgesics and narcotic analgesic combinations made up 16 percent of all drugs mentioned in 2002, and they were reported in 30 percent of all drug-related ED episodes. The specific narcotic analgesics involved were specified for only 15 percent of mentions. Nonetheless, ED rates for both methadone and oxycodone/oxycodone combinations increased significantly over 2001. Treatment admission rates for opiates other than heroin more than doubled between 1999 and 2002, from 19 per 100,000 population age 12 and over to 44 per 100,000, and they were projected to reach 52 per 100,000 in 2003.

Deaths associated with narcotic analgesics increased annually between 1999, when 122 deaths related to narcotic analgesics were reported, and 2002, when 236 were reported. Virtually all (97 percent) of the deaths in 2002 also involved other substances—15 percent involved one other substance, 22 percent involved two other substances, and 60 percent involved three or more other substances.

Marijuana

Indicators of marijuana use have tended to increase since 2000 (exhibit 1). The rates of marijuana ED mentions increased significantly in 2002 over 2001 among all age groups, for both males and females, and for both Whites and African-Americans. The annual marijuana treatment admission rate increased from 207 per 100,000 population age 12 and over in 2001 to 232 per 100,000 in 2002, and it is projected to reach 236 per 100,000 in 2003 (exhibit 2).

Marijuana was more frequently reported as a secondary substance than as a primary substance by treatment admissions in the total PMSA in the first half of 2003, at 19 percent and 16 percent, respectively.

The proportion of marijuana treatment admissions in the first half of 2003 was higher in the suburban counties (18 percent) than in Baltimore City (14 percent), but the admission rate for the first half of 2003 was higher in the city (200 per 100,000 population age 12 and over, compared with 86 per 100,000 in the counties; exhibit 2).

More often than not, marijuana use in the indicator data sets was associated with the use of alcohol or other drugs. Most (66 percent) marijuana ED episodes involved multiple substances (exhibit 3). Among treatment admissions for primary marijuana use in the total PMSA, 65 percent reported using additional substances (exhibit 10). More than one-half (56 percent) reported alcohol abuse, 9 percent reported cocaine use, and 6 percent reported use of heroin or other opiates. Some 10 percent of admissions used other secondary substances, primarily hallucinogens and inhalants.

Persons entering treatment for marijuana use were young: 46 percent were younger than 18, and the median age at admission to treatment was 18 (exhibit 10). Marijuana admissions were primarily male (83 percent) and increasingly likely to be African-American (52 percent in the first half of 2003, compared with 45 percent in 1999). A large proportion of marijuana treatment admissions (63 percent) represented referrals through the criminal justice system. Admissions were likely to be experiencing their first treatment episode (69 percent), and more than one-third (38 percent) reported daily marijuana use.

Prices for marijuana for the second half of 2003 were reported as $2,300–$3,250 per pound for hydroponic marijuana or $850–$1,600 per pound for commercial grade marijuana at the wholesale level. Midlevel prices were $275 per ounce for hydroponic and $130 per ounce for commercial grade. At the retail level, prices were $35–$60 per one-quarter ounce commercial grade, $20–$40 per bag commercial grade, or $2–$5 per joint commercial grade.

Stimulants

Stimulants were rarely mentioned as the primary substance of abuse by treatment admissions (exhibit 2).

Amphetamines were present in only 2 percent of drug-related ED episodes, and they declined significantly from 11 mentions per 100,000 population in 2001 to 10 per 100,000 in 2002. About one-half (49 percent) of amphetamine episodes involved females; 70 percent were White, and 39 percent were age 35 and older (however, 21 percent were age 12–17). There were only eight ED mentions of methamphetamine in 2002. Of the eight methamphetamine episodes, six were male, six were White, and five were age 18–34.

Wholesale and midlevel prices for methamphetamine for the second half of 2003 were not available. However, the retail-level price was $150 per gram.

Depressants

Benzodiazepines were mentioned in 11 percent of drug-related ED episodes in 2002, representing a small (2 percent) increase from 59 mentions per 100,0000 population in 2001 to 60 per 100,0000 in 2002. The specific benzodiazepines involved were identified for only 25 percent of mentions. Those most frequently specified were alprazolam, clonazepam, diazepam, and lorazepam. Barbiturate mentions also increased significantly, from 13 per 100,000 population in 2001 to 14 per 100,000 in 2002. Since 1995, the rate of barbiturate mentions increased by 277 percent, and the rate of benzodiazepine mentions increased by 105 percent.

Hallucinogens

The number and rate of lysergic acid diethylamide (LSD) mentions in drug-related ED episodes were stable at 31 mentions (1 mention per 100,000 population) in 2002. Those LSD episodes involved predominantly young (45 percent age 12–17; 35 percent age 18–25), White (84 percent) males (94 percent). The number and rate of phencyclidine (PCP) mentions increased significantly, from 75 mentions (3 per 100,000 population) in 2001 to 120 mentions (5 per 100,000) in 2002. PCP episodes in 2002 were more likely to involve women and youth than in 2001. In 2002, 44 percent of PCP-related episodes involved women, compared with 33 percent in 2001, and 29 percent were age 12–17, compared with 13 percent in 2001.

Club Drugs

ED mentions of methylenedioxymethamphetamine (MDMA) remained low and declined significantly from 75 mentions in 2001 to 64 mentions in 2002 (3 per 100,0000 population). Of the MDMA episodes, 61 percent were male, 67 percent were White, 28 percent were aged 12–17, and 56 percent were age 18–25. There were eight ED mentions of gamma hydroxylbutyrate (GHB), three of ketamine, and none of Rohypnol in 2002. All GHB episodes were among White males, 75 percent of whom were age 26–34. Of the three ketamine episodes, two were male, two were White, one was Hispanic, and two were age 12–17.

The wholesale price for MDMA in the second half of 2003 was reported as $10–$15 per tablet, and it retailed at $20 per tablet.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The Baltimore PMSA ranked third behind New York City and Miami in its annual AIDS case report rate for 2001, with 50 cases per 100,000, compared with 54 per 100,000 in Miami and 66 per 100,000 in New York (CDC 2001).

The Baltimore metropolitan area had an AIDS incidence rate of 32.8 per 100,000 population for 2002, and a human immunodeficiency virus (HIV) incidence rate of 55.4 per 100,000. Baltimore City accounted for 51 percent of Maryland's incident HIV infections in 2002 and 49 percent of its incident AIDS cases in 2002; the suburban counties accounted for 13 percent and 15 percent of 2002 incident HIV and AIDS cases, respectively. As of December 31,

2002, 62 percent of the 26,286 persons in Maryland living with HIV or AIDS were in the Baltimore metropolitan area.

In 2002, Baltimore City's prevalent HIV/AIDS cases were about 62 percent male and 82 percent African-American. Forty-three percent were age 40–49 years, and another 27 percent were age 30–39 years. Fifty-seven percent of prevalent HIV/AIDS cases in Baltimore City in which the risk category was determined were among injection drug users (IDUs), 15 percent were among non-IDU men who had sex with men, and 25 percent involved heterosexual transmission. In the suburban counties, prevalent HIV/AIDS cases were 65 percent male and 55 percent African-American. Forty percent were age 40–49, and another 32 percent were age 30–39. For cases in which the risk category was determined, 36 percent of prevalent HIV/AIDS cases in the suburban counties were among IDUs, 29 percent were among non-IDU men who had sex with men, and 31 percent involved heterosexual transmission. In Maryland as a whole, IDUs represented 48 percent of prevalent HIV/AIDS cases in 2002.

A 2002 survey found that hepatitis C (HCV) antibodies were present in 30 percent of entrants to the Baltimore detention facilities and Maryland prisons (Maryland Department of Health and Mental Hygiene 2003). Nine percent tested positive for hepatitis B.

In 2001, Maryland ranked 5th among reporting States for syphilis (5 per 100,000 population), 11th for gonorrhea (178 per 100,000 population), and 18th for chlamydia (295 per 100,000 population) (CDC 2002). The Sexually Transmitted Disease (STD) Division of the Maryland Department of Health reported a decline in the rate of syphilis cases in Maryland from 17 per 100,000 population in 1997 to 4 per 100,000 in 2002. In 1999, Baltimore City ranked highest among the 20 cities most burdened by STDs for gonorrhea (949 per 100,000 population), fifth for chlamydia (819 per 100,000 population), and third for syphilis (38 per 100,000 population) (CDC 2000). By 2002, STD rates for Baltimore City had decreased for syphilis (to 19 per 100,000) and gonorrhea (to 749 per 100,000), but had increased for chlamydia (to 963 per 100,000).

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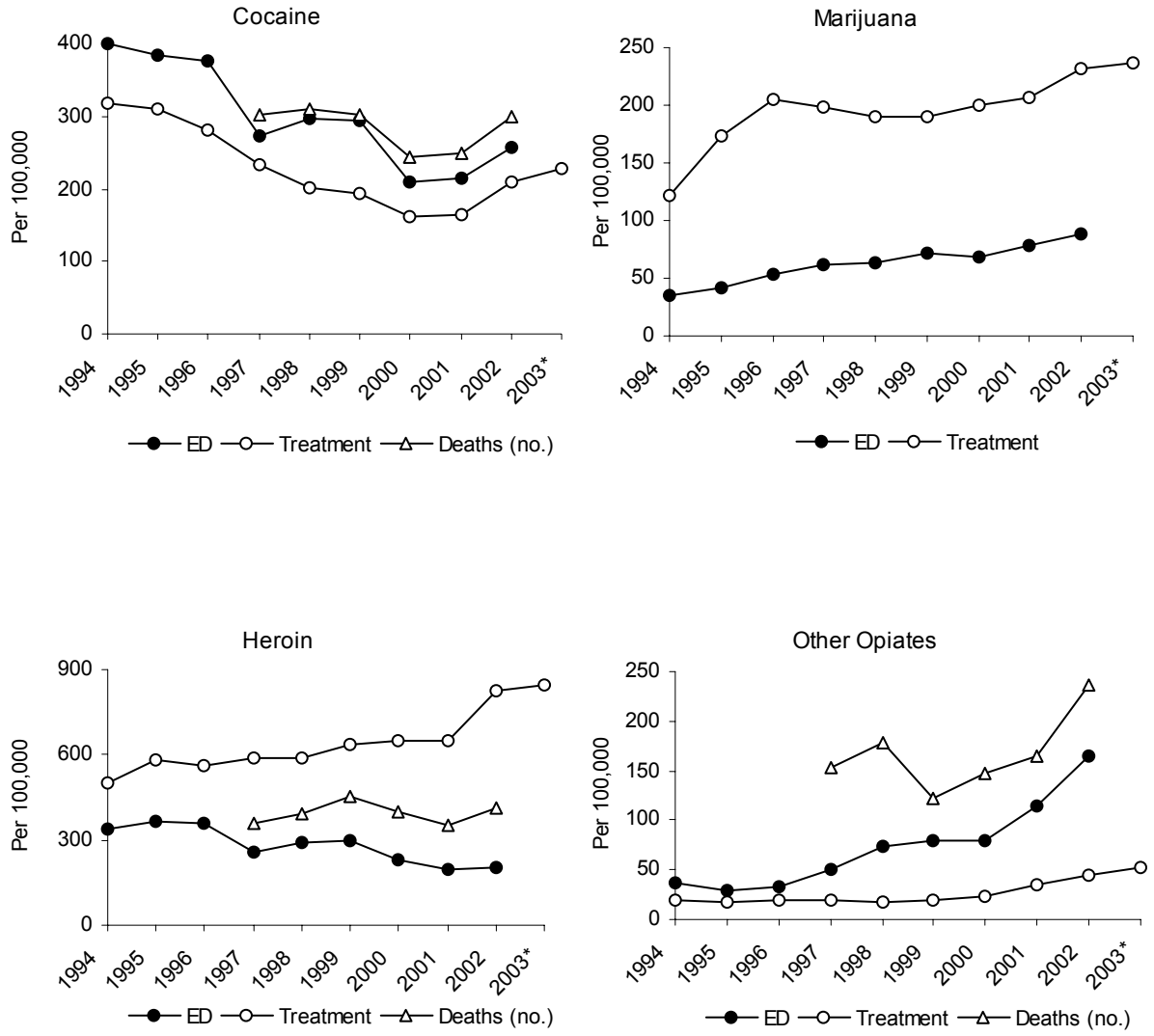
Exhibit 1. Annual Rates of Drug-Related Treatment Admissions and ED Mentions Per 100,000 Population, and Numbers of Drug-Related Deaths in Baltimore: 1994–2003[1]



[1]Treatment admission rates for 2003 are projected based on data for January–June 2003.
SOURCES: DAWN, OAS, SAMHSA, and Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

Exhibit 2. Characteristics of Drug-Related Treatment Admissions in Baltimore: 1999–First Half of 2003

	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	1999	2000	2001	2002	1H 2003	1999	2000	2001	2002	1H 2003	1999	2000	2001	2002	1H 2003
(Number of Admissions)	(26,894)	(27,145)	(26,043)	(33,513)	(15,785)	(13,213)	(13,366)	(12,874)	(16,951)	(7,766)	(13,681)	(13,759)	(15,169)	(16,562)	(8,019)
Primary Substance (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Alcohol with Secondary Drug	19.2	17.9	17.5	14.6	13.9	10.0	8.9	8.5	8.1	7.1	28.0	26.6	25.1	21.2	20.6
Cocaine	14.9	12.7	12.5	13.4	13.3	14.7	12.5	13.1	14.5	13.3	15.1	12.9	11.9	12.3	13.2
Smoked	10.8	9.5	9.3	10.3	9.8	10.7	9.6	10.2	11.9	11.1	10.9	9.4	8.6	8.6	8.6
Injected	1.3	1.0	0.9	1.1	1.0	1.6	1.1	1.0	1.2	1.1	1.0	0.8	0.8	1.0	0.9
Other	2.8	2.2	2.3	2.0	2.4	2.3	1.8	1.9	1.4	1.1	3.1	2.7	2.6	2.7	3.7
Marijuana/Hashish	14.7	15.6	15.8	15.0	15.6	10.3	11.6	12.3	12.4	13.5	18.8	19.6	18.7	17.5	17.7
Heroin	48.8	51.0	49.8	53.0	53.0	63.9	65.9	64.3	63.2	64.7	34.2	36.5	37.4	42.5	41.7
Injected	23.5	23.7	22.3	24.6	25.2	28.3	27.7	25.7	26.0	28.1	18.8	19.8	19.3	23.1	22.4
Snorted	21.6	24.6	24.6	25.5	23.2	30.5	35.0	35.6	33.4	31.2	13.1	14.5	15.6	17.4	15.6
Other	3.7	2.7	2.7	2.9	4.5	5.1	3.1	3.0	3.8	5.4	2.3	2.2	2.4	2.0	3.7
Other Opiates	1.5	1.8	2.6	2.8	3.1	0.6	0.7	1.1	1.3	1.1	2.4	2.8	3.9	4.4	5.0
Stimulants	0.1	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.3	0.2
All Other	0.9	0.9	1.7	1.1	1.0	0.5	0.4	0.5	0.5	0.4	1.4	1.4	2.7	1.8	1.5
Primary Substance (Annual admissions per 100,000 population age 12+)[1]															
Alcohol with Secondary Drug	249	228	229	226	101	255	221	204	259	105	247	231	237	216	100
Cocaine	193	162	164	208	96	373	311	316	464	197	133	112	113	125	64
Smoked	140	122	122	159	72	271	239	246	382	165	96	82	81	87	42
Injected	17	12	12	17	7	42	28	25	38	16	9	7	8	10	4
Other	36	28	30	32	18	60	44	45	44	18	28	23	24	27	18
Marijuana/Hashish	190	200	207	232	113	263	266	296	399	200	166	170	177	178	86
Heroin	633	652	652	823	365	1,622	1,636	1,547	2,027	963	302	317	353	432	203
Injected	305	303	292	381	163	719	690	618	833	416	166	172	183	235	109
Snorted	281	315	325	396	169	773	871	857	1,071	464	115	126	148	177	76
Other	46	34	35	46	33	130	76	72	123	60	20	19	23	21	18
Stimulants	19	23	34	44	23	14	17	27	42	16	21	24	37	45	24
All Other	1	2	2	3	1	1	1	2	2	1	1	2	2	3	1
Secondary Substance (%)[2]															
None	23.7	25.6	24.9	24.6	26.1	25.3	28.6	28.4	25.6	26.8	22.2	22.6	21.9	23.4	25.5
Alcohol	28.1	28.7	30.1	29.5	28.9	27.6	28.3	31.0	30.1	30.0	28.5	29.1	29.4	28.9	27.9
Cocaine	37.6	36.0	35.5	36.4	37.3	45.5	42.9	42.2	44.5	45.8	30.5	29.3	28.8	32.1	29.1
Marijuana/Hashish	23.7	23.2	21.8	20.5	18.5	15.9	15.1	14.6	14.3	11.5	31.3	31.1	27.9	26.9	25.2
Heroin/Other Opiates	8.9	8.4	8.6	9.7	9.0	9.1	8.3	7.7	9.0	7.2	8.7	8.4	9.4	10.3	10.7
All Other	5.5	5.6	6.2	5.9	6.0	3.0	2.4	2.9	3.0	2.9	7.9	9.2	12.7	8.9	8.9

[1] Rates for 2003 are not annual; they are for January—June only.
[2] "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.
SOURCE: Alcohol and Drug Administration, Maryland Department of Health and Mental Hygiene

Exhibit 3. Cocaine, Heroin, and Marijuana ED Mentions in Baltimore, by Demographic Characteristics: 1998–2002

	Cocaine					Heroin					Marijuana				
	1998	1998	1999	2000	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
(Number of Mentions)	(6,871)	(6,921)	(4,943)	(4,930)	(5,969)	(6,711)	(6,999)	(5,405)	(4,481)	(4,715)	(1,495)	(1,679)	(1,620)	(1,786)	(2,044)
Percent of All Episodes	50.0	48.8	43.0	42.4	46.3	48.9	49.4	47.0	38.5	36.5	10.9	11.8	14.1	15.4	15.8
Percent of All Mentions	29.2	27.9	24.9	23.7	25.2	28.5	28.3	27.2	21.6	19.9	6.4	6.8	8.2	8.6	8.6
Annual Rate of Mentions Per 100,000 Population															
Total	296	295	208	214	257	289	299	227	195	203	64	72	68	78	88
12-17	40	26	20	21	32	42	35	24	16	17	146	159	169	174	212
18-25	300	285	216	240	274	378	379	330	303	275	174	206	185	231	251
26-34	667	651	442	528	600	579	628	469	450	460	107	115	109	122	133
35 and older	278	290	206	211	262	274	282	210	182	200	29	32	30	35	40
Percentage Distributions[1]															
Multiple-Drug Episode	79.9	80.6	81.3	84.0	84.3	57.8	60.0	53.1	58.1	54.8	67.6	66.8	63.3	63.0	65.6
Sex															
Male	62.5	60.8	61.1	62.2	63.7	61.5	59.8	61.4	62.8	61.7	65.4	65.6	63.6	65.5	65.0
Female	36.7	38.6	38.1	36.8	35.6	37.8	39.5	37.5	35.9	37.2	34.0	33.5	35.6	33.4	34.4
Unknown	0.8	0.5	0.8	1.0	0.7	0.7	0.6	1.1	1.2	1.0	0.5	0.9	0.8	1.2	0.6
Race/Ethnicity															
White	26.1	28.1	32.3	35.5	37.6	26.4	27.1	37.0	39.7	40.6	50.1	52.2	56.9	58.4	64.4
Black	70.7	68.9	64.2	56.2	56.6	70.9	70.3	61.0	49.3	51.2	42.9	38.5	30.7	31.9	31.6
Hispanic	0.4	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.6	0.5	0.3	0.5	0.4	0.5	0.4
Race/ethnicity NTA	0.2	0.3	0.1	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.5	0.6	0.4	0.7	0.3
Unknown	2.6	2.5	3.1	7.4	5.0	2.1	2.1	1.4	10.1	7.5	6.2	8.2	11.7	8.3	3.2
Age at Admission															
12-17	1.1	0.8	0.8	0.9	1.2	1.2	1.0	0.9	0.8	0.8	19.1	18.6	20.8	21.0	22.6
18-25	11.2	10.7	11.7	12.9	12.3	14.4	14.1	16.3	17.9	15.6	29.8	31.9	30.4	34.2	32.8
26-34	34.7	33.0	31.0	29.7	28.1	30.9	31.5	30.0	27.8	27.3	25.6	24.1	23.3	18.9	18.2
35 and older	52.6	55.3	56.3	56.2	58.3	53.1	53.2	52.5	53.3	56.3	25.5	25.3	25.4	25.7	26.3
Unknown	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1	0.1	–[2]	0.1	–
Reason for ED Contact															
Unexpected reaction	10.9	10.9	8.1	7.6	8.0	7.4	10.5	4.4	5.0	6.6	18.7	18.9	18.8	20.2	14.8
Overdose	9.9	9.7	11.2	10.0	8.6	11.7	10.2	12.8	13.7	12.6	11.4	11.0	11.6	9.0	8.8
Chronic effects	30.6	27.6	22.8	23.5	23.1	34.4	29.1	25.4	25.2	29.3	12.6	10.1	5.4	7.8	9.8
Withdrawal	5.9	4.4	5.1	5.4	5.6	13.2	10.7	12.9	14.2	15.2	2.2	1.6	3.0	3.5	2.6
Seeking detox	11.2	13.6	16.3	18.8	17.7	9.4	10.9	17.4	20.7	20.6	11.6	14.5	15.5	16.2	13.5
Accident/injury	3.3	3.6	2.8	2.3	2.3	4.6	4.4	2.4	1.5	2.4	7.6	7.4	3.9	5.3	4.6
Other	11.9	24.0	29.3	27.3	28.9	7.4	18.3	22.8	17.7	10.9	19.9	30.2	31.5	24.2	32.9
Unknown	16.3	6.2	4.3	5.1	5.8	11.8	5.9	1.9	1.9	2.4	16.0	6.3	10.3	13.9	13.1

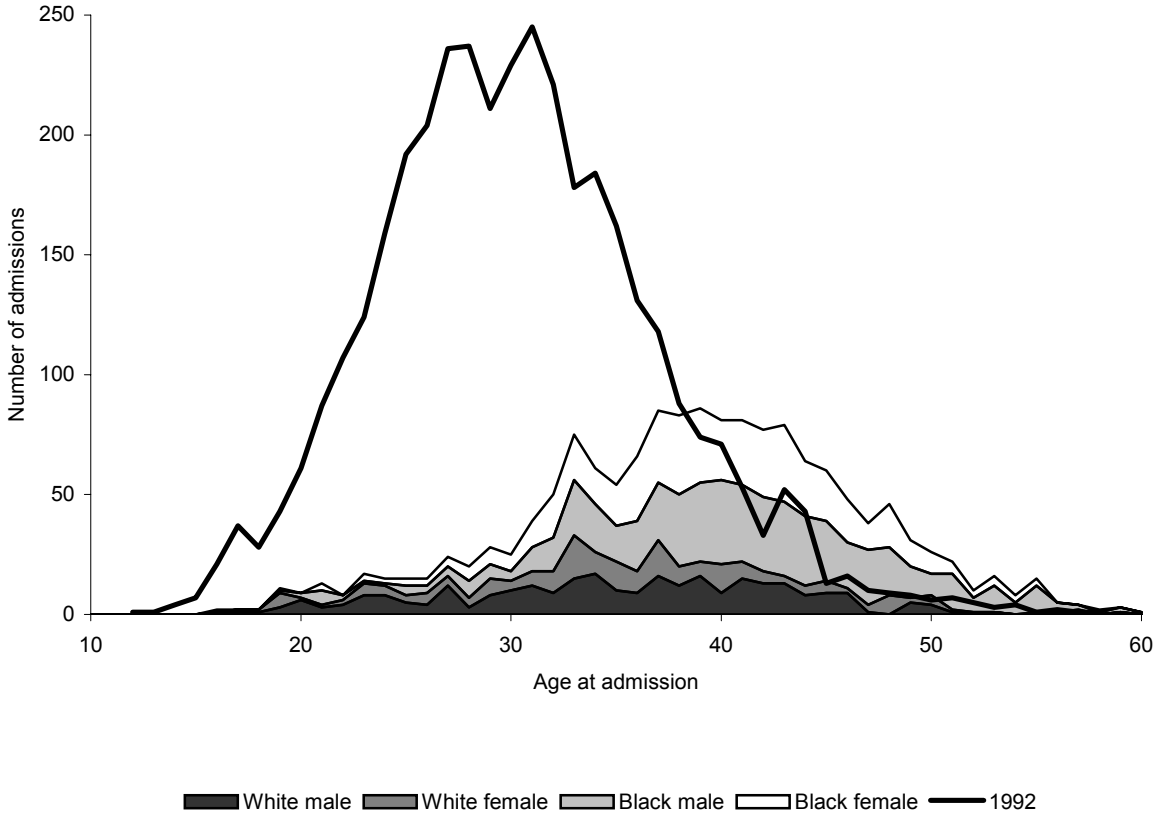
[1]Percentages may not sum to 100.0 because of rounding DAWN estimates.
[2]– Quantity is zero.
SOURCE: DAWN, Office of Applied Studies, SAMHSA

Exhibit 4. Characteristics of Primary Smoked Cocaine (Crack) Treatment Admissions in Baltimore, by Percent: 1999–First Half of 2003

	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	1999	2000	2001	2002	1H 2003	1999	2000	2001	2002	1H 2003	1999	2000	2001	2002	1H 2003
(Number of Admissions)	(2,905)	(2,585)	(2,616)	(3,437)	(1,554)	(1,412)	(1,289)	(1,318)	(2,019)	(863)	(1,493)	(1,296)	(1,298)	(1,418)	(691)
Primary Use of Substance	10.8	9.5	9.3	10.3	9.8	10.7	9.6	10.2	11.9	11.1	10.9	9.4	8.6	8.6	8.6
Sex															
Male	55.4	55.4	52.7	53.1	55.2	46.7	48.0	46.6	47.9	50.1	63.6	62.7	58.9	60.5	61.6
Female	44.6	44.6	47.3	46.9	44.8	53.3	52.0	53.4	52.1	49.9	36.4	37.3	41.1	39.5	38.4
Race/Ethnicity															
White	37.0	31.6	32.5	29.5	31.1	15.9	12.6	11.6	11.4	11.0	56.9	50.5	53.7	55.2	56.3
African-American	61.5	67.0	66.2	68.9	67.2	82.9	86.7	87.3	87.7	88.6	41.3	47.5	44.8	42.2	40.4
Hispanic	0.8	0.7	0.5	1.0	1.2	0.4	0.3	0.3	0.6	0.3	1.1	1.2	0.8	1.4	2.2
Other	0.7	0.7	0.8	0.7	0.5	0.7	0.5	0.8	0.3	-[3]	0.7	0.8	0.8	1.2	1.2
Age at Admission															
Younger than 18	0.6	0.5	0.8	0.6	0.3	0.4	0.3	0.9	0.5	0.2	0.7	0.7	0.7	0.8	0.3
18-25	8.3	6.6	7.2	5.1	5.9	4.6	4.3	4.3	2.4	3.8	11.7	8.8	10.3	8.8	8.5
26-34	36.8	33.9	25.6	24.3	22.2	34.8	31.4	22.3	20.5	17.7	38.7	36.4	29.0	29.8	27.8
35 and older	54.4	59.0	66.3	70.0	71.6	60.2	63.9	72.5	76.5	78.2	48.9	54.2	60.0	60.6	63.4
(Median Age at Admission)	(35 yrs)	(36 yrs)	(37 yrs)	(38 yrs)	(39 yrs)	(36 yrs)	(37 yrs)	(38 yrs)	(39 yrs)	(40 yrs)	(34 yrs)	(35 yrs)	(36 yrs)	(37 yrs)	(37 yrs)
Daily Use	35.4	35.1	36.5	40.4	42.3	43.2	44.3	43.0	49.9	54.5	28.0	26.0	30.0	28.9	27.2
First Treatment Episode	42.9	42.4	40.0	41.9	40.3	42.7	39.1	39.6	40.4	39.9	43.0	45.6	40.3	44.1	40.8
(Median Duration of Use)[1]	(10 yrs)	(10 yrs)	(11 yrs)	(12 yrs)	(12 yrs)	(10 yrs)	(10 yrs)	(10 yrs)	(12 yrs)	(12 yrs)	(10 yrs)	(10 yrs)	(11 yrs)	(12 yrs)	(12 yrs)
Criminal Justice Referral	37.3	40.5	36.5	31.9	32.1	30.1	31.3	29.4	25.3	24.7	44.1	49.7	43.8	41.2	41.4
Secondary Substance[2]															
None	30.0	31.0	31.0	30.1	34.6	32.3	34.6	35.7	31.0	38.6	27.9	27.4	26.2	29.0	29.7
Alcohol	47.8	47.8	48.5	48.2	46.5	43.1	41.7	43.2	45.6	41.8	52.2	53.9	53.9	52.0	52.2
Cocaine	0.1	0.1	0.0	0.3	0.1	0.1	0.1	–	0.3	–	0.1	0.1	0.1	0.2	0.1
Smoked cocaine (crack)	-[3]	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other cocaine	0.1	0.1	0.0	0.3	0.1	0.1	0.1	–	0.3	–	0.1	0.1	0.1	0.2	0.1
Marijuana/hashish/THC	29.7	28.5	26.2	23.7	19.9	25.1	23.5	20.6	20.3	15.9	34.0	33.6	31.9	28.5	25.0
Heroin/other opiates	18.5	18.5	19.6	23.5	21.1	24.1	24.0	24.6	28.3	23.3	13.3	13.0	14.6	16.6	18.4
Injected	2.5	2.0	2.9	2.9	5.4	2.6	2.0	2.6	2.8	6.0	2.5	2.0	3.2	3.0	4.6
Snorted	13.3	13.2	13.6	17.5	13.6	19.0	19.6	20.0	22.9	17.6	8.0	6.9	7.2	9.7	8.5
Other	2.7	3.3	3.3	3.3	4.4	2.5	2.5	2.2	2.8	3.4	2.9	4.2	4.4	3.9	5.8
All other	2.5	3.1	3.9	2.6	2.7	1.2	1.0	0.9	0.9	1.0	3.7	5.1	6.9	4.9	4.8

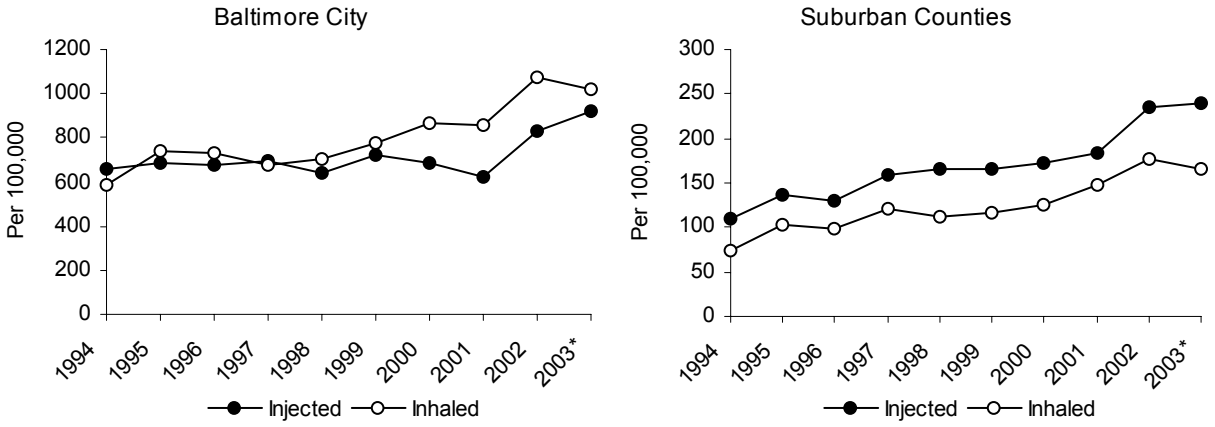
[1] For first-time treatment admissions.
[2] "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.
[3] – Quantity is zero.
SOURCE: Alcohol and Drug Administration, Maryland Department of Health and Mental Hygiene

Exhibit 5. Numbers of Smoked Cocaine Treatment Admissions in Baltimore: By Age, 1992, and by Age and Race, First Half of 2003



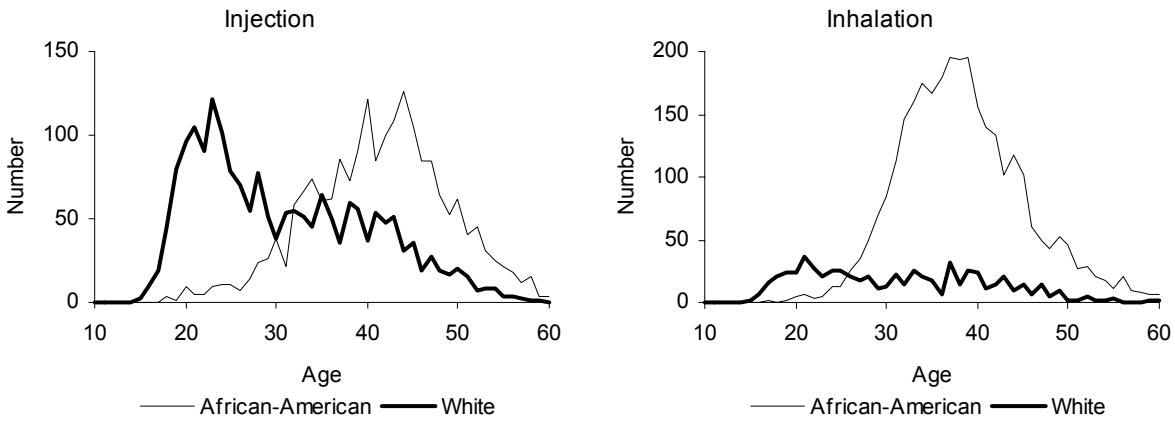
SOURCE: Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

Exhibit 6. Annual Rates of Heroin Treatment Admissions Per 100,000 Population in Baltimore, by Urbanicity and Route of Administration: 1994–2003[1]



[1]Treatment admission rates for 2003 are projected based on data for January–June 2003.
SOURCE: Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene

Exhibit 7. Numbers of Heroin Treatment Admissions in Baltimore, by Route of Administration, Age, and Race: First Half of 2003



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

Patterns and Trends in Drug Abuse: Greater Boston

Daniel P. Dooley[1]

ABSTRACT

Heroin, cocaine, and marijuana indicators at high and stable levels reveal their continued dominating presence as major drugs of abuse in Boston. Fueled primarily by increasing oxycodone misuse, narcotic analgesics abuse is on the rise. Though indicators show high and rising levels of abuse in Boston, budget cutbacks have resulted in a 22-percent reduction in treatment admissions during the first half of fiscal year 2004. After years of continued growth, some heroin indicators show signs of stabilization at very high levels. The 2002 Boston rate of heroin ED mention estimates (111 per 100,000 population) was stable at three times the national rate of 36. In 2002, heroin/morphine was mentioned in 46 percent of the 419 drug abuse deaths. Although heroin ED mentions and death mentions were stable, heroin treatment admissions steadily increased during the past 8 years, accounting for close to one-half of all primary drug admissions in FY 2003. 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 2002, cocaine was mentioned in 29 percent of the drug abuse deaths (second only to heroin/morphine). Cocaine treatment percentages remained stable, with 24 percent of those seeking treatment reporting current (past-month) cocaine use in the first half of FY 2004. Marijuana ED mention estimates were relatively stable at a rate that is 2½ times the national rate. Marijuana treatment numbers were stable, with 11 percent of those seeking treatment reporting current (past-month) marijuana use in FY 2003. Boston's drug abuse indicators show evidence of a growing level of narcotic analgesic abuse. Among the 21 DAWN cities reporting, Boston experienced the fourth highest rate of estimated ED mentions for narcotic analgesics and the highest rate of estimated oxycodone/combinations (a subset of narcotic analgesics) ED mentions. Narcotic analgesics accounted for nearly one in four (24 percent) single-drug deaths in 2002, up 100 percent from 2000. The number of other opiate primary admissions increased tenfold from 1997 to 2003. Oxycodone lab samples and Helpline mentions continued to show dramatic increases as well. Increases in opiate Helpline mentions further illuminate Boston's growing narcotic analgesic abuse problem. Boston experienced the highest rate among all 21 DAWN cities of estimated ED mentions of benzodiazepines. Though Boston experienced low numbers and stable rates of methamphetamine ED mention estimates in 2002, a small but increasing number of methamphetamine treatment admissions warrant attention and continued close drug monitoring. In 2002, there were 179 new HIV cases in Boston. 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

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- Proximity to Interstate 95, which connects Boston to all major cities on the east coast, particularly New York
- A well-developed public transportation system that provides easy access to communities in eastern Massachusetts
- A large population of college students in both the greater Boston area and western Massachusetts
- Several seaport cities with major fishing industries (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:

- **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 for a Boston metropolitan area consisting of five Massachusetts counties: Essex, Middlesex, Norfolk, Plymouth, and Suffolk.
- **Drug-related death data** were provided by DAWN, OAS, SAMHSA, for 2002 for a Boston metropolitan area consisting of five Massachusetts counties: Essex, Middlesex, Norfolk, Plymouth, and Suffolk.
- **State-funded substance abuse treatment admissions data** for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (Community Health Network Area [CHNA] 19), for fiscal year (FY) 1996 through FY 2003 (July 1, 1995, through June 30, 2003) were provided by the Massachusetts Department of Public Health (DPH), Bureau of Substance Abuse Services.
- **Analysis of seized drug samples** for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19), for January 1, 1997, through June 30, 2003, were provided by the DPH Drug Analysis Laboratory.
- **Information on drug mentions in Helpline calls** for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19) for FY 2000 through FY 2003 were provided by the Massachusetts Substance Abuse Information and Education Helpline.
- **Drug arrests data** for the city of Boston for 1997–2002 were provided by the Boston Police Department, Drug Control Unit and Office of Research and Evaluation.
- **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.
- **Youth Risk Behavior Survey data** were provided by the Boston Public School Department and included self-reported drug use prevalence among Boston public high school students in 2003.
- **Data on Massachusetts pharmacy OxyContin thefts** for 1998 through September 2003 were provided by the Massachusetts Pharmacy Board of Registration.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** by year between 1993 and 2002, and cumulative data through November 1, 2003, were provided by the DPH AIDS Surveillance Program.

Cocaine/Crack

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

In 2002, cocaine was indicated in 121 of the 419 drug abuse deaths in Boston (28.9 percent)—second only to heroin/morphine. Thirty-three of those were single-drug deaths.

In 2002, there were 5,611 cocaine/crack ED mentions in Boston; cocaine/crack was a factor in 31 percent of all drug episodes (exhibit 1). The cocaine/crack ED mentions rate of 156 per 100,000 population was similar to that of the 2 previous years.

The 2002 ED rates by gender show that the cocaine/crack rate for males is almost 1.8 times the rate for females (200 vs. 113 per 100,000 population). The highest rate by an age group (358 per 100,000 population) occurred among those age 26–34. Within that group, those age 26–29 experienced a rate of 403 per 100,000 population. A 2-year rate increase of 76 percent was reported among those age 18–25. Similarly, a 2-year rate increase of 70 percent occurred among those age 45–54.

In the first half of FY 2004, 738 treatment clients (8 percent of all admissions) reported cocaine/crack as their primary drug (exhibit 2a), and there were 2,177 mentions (23 percent of all admissions) of current cocaine/crack use among those admitted to State-funded treatment programs (exhibit 3).

A comparison of the last full year of data (FY 2003) to previous years shows 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.

Exhibit 2a shows demographic characteristics of cocaine/crack treatment admissions in Boston. For further demographic comparisons of annual treatment admissions, see "Patterns and Trends in Drug Abuse: Greater Boston" in *Epidemiologic Trends in Drug Abuse Volume II*, December 2003.

There were 1,736 Class B (mainly cocaine and crack) drug arrests in 2003 (exhibit 4). Class B arrests accounted for the largest proportion of drug arrests (42 percent) in the city of Boston in 2003, similar to 2002. However, the proportion of Class B arrests decreased 12 percent from 1997 to 2003.

The proportion of Hispanic Class B arrests (17 percent) decreased 26 percent from 2001 to 2003. The proportion of Black Class B arrests (67 percent) increased 10 percent, while the proportion of White Class B arrests (32 percent) decreased 16 percent from 1997. The proportion of Class B arrests of those age 40 and older (26 percent) increased 60 percent from 1997, while arrests for those age 25–39 (44 percent) decreased 16 percent and arrests for those younger than 20 decreased 24 percent during the same period.

In 2003, 2,739 seized samples of cocaine/crack were analyzed. The proportion of cocaine/crack samples among all drug samples analyzed (30 percent) did not change from 2002, but it decreased 14 percent from 1997.

Cocaine/crack was self-identified as a substance of abuse in 1,042 calls to the Helpline in 2003. The proportion of Helpline call mentions attributable to cocaine/crack (13 percent of all mentions) did not change from 2002 to 2003.

The DEA reports that street cocaine costs $50–$90 per gram in Boston (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. A few of the most recent indicators show heroin abuse possibly stabilizing at very 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 nearly one-half of all clients in treatment reporting heroin as their primary drug.

In 2002, heroin/morphine was indicated in 192 drug abuse deaths—more than any other drug among the 419 total drug abuse deaths (45.8 percent). Sixty of those mentions were single-drug (heroin/morphine only) deaths.

In 2002, there were 3,999 heroin ED mentions; heroin was a factor in 22.3 percent of all drug episodes (exhibit 1). The heroin ED mentions rate of 111 per 100,000 population was similar to that of the 2 previous years.

The 2002 ED rates by gender show that the heroin rate for males is more than two times the rate for females (152 vs. 72 per 100,000 population). The highest rate by an age group (311 per 100,000 population) occurred among those age 26–29. A 2-year rate increase of 215 percent was seen among those age 18–19.

In the first half of FY 2004, there were 4,990 treatment admissions (48 percent of all admissions) for clients reporting heroin or other opiates as their primary drug (exhibit 2a), and 4,377 mentions (46 percent of all admissions) of current (past-month) heroin use among those admitted to State-funded treatment programs (exhibit 3).

Comparison of the last full year of data (FY 2003) to previous years show 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

(past-month) heroin use increased 7 percent from FY 2002, 15 percent from FY 2001, and 55 percent from FY 1996.

Exhibit 2a shows demographic characteristics of heroin treatment admissions. For further demographic comparisons of annual treatment data, see "Patterns and Trends in Drug Abuse: Greater Boston" in *Epidemiologic Trends in Drug Abuse Volume II,* December 2003.

There were 939 Class A (mainly heroin and other opiates) drug arrests in 2003 (exhibit 4). The proportion of Class A drug arrests among all drug arrests in the city of Boston in 2003 (23 percent) was stable from 2002 but a decrease of 15 percent from 2001. The proportion of Class A male arrests in 2003 (87 percent) reflected a 4-percent increase from 2002 and an 8-percent increase from 1997. The proportion of Class A arrests among those age 20–24 in 2003 (15 percent) reflected a 63-percent increase from 1997.

In 2003, 1,419 seized samples of heroin (15 percent of all drug samples) were analyzed. The proportion of heroin samples among all drug samples analyzed did not change from 2002 to 2003, but it decreased 19 percent from 2001 to 2003.

Heroin was self-identified as a substance of abuse in 2,121 calls to the Helpline in 2003 (27 percent of all mentions). The proportion of heroin Helpline call mentions increased 17 percent from 2002 to 2003.

The DEA reports that in Boston, street heroin costs $6–$20 per bag, with an average purity of 40 percent and is "readily available" throughout the New England area (exhibit 5).

Narcotic Analgesics

Narcotic analgesics including oxycodone and other opiates are continuing to show alarming increases among the various indicators.

Narcotic analgesics were mentioned 176 times among 419 drug abuse deaths in 2002. Forty-two of those mentions were single-drug deaths, representing 24 percent of all single-drug deaths.

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

In 2002, Boston had the highest oxycodone/combinations ED rate (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 and an increase of 118 percent from 2000.

In the first half of FY 2004, there were 352 admissions (4 percent of all admissions) to treatment who identified other opiates/synthetics as the primary drug, and there were 745 mentions (8 percent of all admissions) of current other opiate use among those admitted to State-funded treatment programs (exhibit 3).

A comparison of the last full year of data (FY 2003) to previous years shows the number reporting other opiates as their primary drug (*n*=780) increased 242 percent from FY 2000 and 622 percent from FY 1996. The number of mentions of current other opiate use (*n*=1,452) increased 87 percent from FY 2000 and 196 percent from FY 1996.

Drug lab submissions show a 30-percent increase in the number of oxycodone samples from 2002 (*n*=212) to 2003 (275) and a 99-percent increase from 2001 (138) to 2003.

In 2003, there were 642 calls to the Helpline during which oxycodone or a derivative was self-identified as a substance of abuse (8 percent of all mentions). The proportion of Helpline call mentions attributable to oxycodone and derivatives increased 45 percent from 2002 and 77 percent from 2001. There were 84 other opiates Helpline calls in 2003, an increase of 200 percent from 2000.

Statewide OxyContin thefts continued to decrease in number. There were 62 statewide OxyContin thefts from pharmacies during 2003, compared with 93 in 2002 and the peak of 139 thefts in 2001. OxyContin thefts were down as well in the first quarter of 2004, when they totaled seven. Possible reasons for such a drop in the number of thefts include a real drop in demand or possibly an effect of changes in pharmacy supply procedures. 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 marijuana ED mentions; marijuana was a factor in 24 percent of all drug episodes (exhibit 1). The marijuana ED mentions rate of

119 per 100,000 population was similar to that of the 2 previous years.

The 2002 marijuana ED rates by gender show that the rate for males is 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) occurred among those age 18–25. Within that group, those age 18–19 experienced a rate of 630 per 100,000 population.

In the first half of FY 2004, there were 436 treatment admissions (5 percent of all admissions) with clients reporting marijuana as their primary drug (exhibit 2b), and 1,067 mentions (11 percent of all admissions) of current marijuana use among those admitted to State-funded treatment programs (exhibit 3).

A comparison of the last full year of data (FY 2003) to previous years shows the proportion reporting marijuana as their primary drug was similar to FYs 2002, 2001, and 1996. The proportion of mentions of current marijuana use decreased 15 percent from FY 2001 and 31 percent from FY 1996.

Exhibit 2b shows demographic data for marijuana treatment admissions in Boston. For further demographic comparisons of annual treatment data, see "Patterns and Trends in Drug Abuse: Greater Boston" in *Epidemiologic Trends in Drug Abuse Volume II*, December 2003.

There were 1,366 Class D (mainly marijuana) drug arrests in 2003 (exhibit 4). The proportion of Class D arrests among all drug arrests (32.7 percent) in the city of Boston in 2003 was stable from 2002, but it reflected a 14-percent increase from 2001.

The proportion of White Class D arrests (32 percent) in 2003 reflected a 12-percent decrease from 2002, a 15-percent decrease from 2001, and a 25-percent decrease from 1997. The proportion of Black Class D arrests (66 percent) increased 7, 9, and 19 percent, respectively, during the same periods.

There were 3,348 seized samples of marijuana, more than any other drug analyzed by the drug lab in 2003. The proportion of marijuana samples analyzed in 2003 (36 percent of all drug samples) was similar to 2002.

Marijuana was self-identified as a substance of abuse in 246 calls to the Helpline in 2003, representing 3 percent of all mentions.

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

Benzodiazepines

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

Benzodiazepines were mentioned 52 times among the 419 drug abuse deaths in 2002. This number is down considerably from the 136 mentions among 374 drug abuse deaths in 2001.

There were an estimated 3,665 benzodiazepines ED mentions in 2002. Boston's 2002 rate of 102 benzodiazepines ED mentions per 100,000 population was highest among all 21 DAWN sites and nearly 2½ times the national rate of 42.

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

In 2003, there were 185 calls to the Helpline during which benzodiazepines (including Ativan, Valium, Xanax, Klonopin, Rohypnol, Halcion, and others) were self-identified as substances of abuse (2.3 percent of all mentions). The number and proportion of Helpline call mentions attributable to benzodiazepines has remained fairly stable from 2000 to 2003.

Methylenedioxymethamphetamine (MDMA)

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

There were an estimated 116 MDMA ED mentions in 2002 (down slightly from 140 in 2001) (exhibit 1). Of these, 59 percent were among males, and 79 percent were among those younger than 26.

Drug lab submissions show the number of MDMA samples peaked at 106 in 2000 then dropped to 56 (fewer than 1 percent of the 9,219 total samples) in 2003.

In 2003, there were 30 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 four FYs 2000 to 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 widely available "in spite of law enforcement seizures."

Other Drugs

Amphetamines

There were an estimated 541 amphetamine ED mentions in 2002. The 2002 rate of 15 mentions per 100,000 population was the highest amphetamines ED mentions rate that Boston has experienced in 8 years of DAWN reporting.

Though small, numbers of amphetamine lab samples increased from 2000 to 2002 (4, 25, and 42, respectively), but they remained stable at 47 in 2003.

Methamphetamine

Though still relatively small in number, methamphetamine treatment admissions increased from 5 in FY 2001, to 19 in FY 2002, to 66 in FY 2003.

There were only 13 estimated ED mentions of methamphetamine in 2002 (exhibit 1). This number is similar to each of the 2 previous years. In 2003, there were 15 methamphetamine-related calls to the Helpline.

The DEA reports that methamphetamine costs $250 per gram and is available "in limited (user-level) quantities" in New England (exhibit 5). The purity level is unknown.

Ketamine

There were an estimated 13 ketamine ED mentions in 2002. This number is similar to each of the 2 previous years. In past years, lab samples for ketamine had shown small but increasing numbers (20, 18, and 43 samples for 2000–2002, respectively), but they dropped off during 2003 (11 samples). The DEA reports that a vial of ketamine costs $50 to $70.

Barbiturates

There were an estimated 637 barbiturates ED mentions in 2002. Boston's ED rate of 18 barbiturates mentions per 100,000 population was the highest barbiturates rate among the 8 years of DAWN reporting and 4½ times the national rate of 4.

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

There were few estimated LSD, PCP, or GHB ED mentions in Boston during 2002 (19, 20, and 27, respectively) (exhibit 1). The DEA reports that LSD costs $5 per dose. Similarly, a capful of GHB costs $5.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

In 2002, there were 302 HIV and AIDS cases diagnosed in Boston (exhibit 6). The primary risk factor for these cases included 12 percent who were injection drug users (IDUs), 8 percent who had sex with IDUs, and 27 percent with an unknown/undetermined transmission status. As of May 1, 2004, cumulative AIDS cases numbered 5,952. By primary risk factor, this included 26 percent who were IDUs, 7 percent who had sex with IDUs, and 13 percent for whom the risk behavior was unknown/undetermined.

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Exhibit 1. Estimated ED Mentions for Selected Drugs and Their Percentages Among Total Drug Episodes[1] in Boston: 1995–2002

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/Crack	5,267	(33)	4,106	(30)	3,332	(27)	4,526	(33)	3,560	(31)	4,099	(28)	4,933	(29)	5,611	(31)
Marijuana/ Hashish	2,401	(15)	2,127	(16)	1,768	(15)	2,907	(21)	1,960	(17)	2,945	(20)	3,423	(20)	4,273	(24)
Heroin	2,956	(18)	2,729	(20)	2,500	(21)	2,738	(20)	2,861	(25)	3,867	(26)	4,358	(26)	3,999	(22)
Oxycodone/ Combinations	276	(2)	241	(2)	231	(2)	247	(2)	294	(3)	598	(4)	948	(6)	1,239	(7)
Hydrocodone/ Combinations	85	(<1)	74	(<1)	93	(<1)	97	(<1)	106	(<1)	201	(1)	208	(1)	288	(2)
PCP	81	(<1)	18	(<1)	22	(<1)	21	(<1)	7	(<1)	11	(<1)	23	(<1)	20	(<1)
LSD	184	(1)	82	(<1)	37	(<1)	53	(<1)	44	(<1)	41	(<1)	33	(<1)	19	(<1)
Methamphetamine	7	(<1)	…[2]	…	….	…	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)
Total Drug Episodes	**16,065**		**13,530**		**12,224**		**13,656**		**11,668**		**14,901**		**16,853**		**17,965**	
Total Drug Mentions	**30,026**		**24,904**		**22,383**		**24,875**		**21,217**		**25,854**		**29,795**		**32,488**	

[1]Percentage of episodes for which each drug was mentioned (mentions/total drug episodes) rounded to the nearest whole number, except when <1 percent.
[2]Dots (…) indicate that an estimate was suppressed due to a relative standard error greater than 50 percent.
Source: DAWN,OAS,SAMHSA

Exhibit 2a. Client Characteristics in Greater Boston State-Funded Substance Abuse Treatment Programs, by Primary Drug[1] and by Percentage: July 1, 1996–December 31, 2003[2]

Demographic Characteristic	Cocaine/Crack								Heroin or Other Opiates/Tranquilizers							
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	1H FY 2004[3]	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	1H FY 2004[3]
Gender																
Male	60	61	59	59	62	63	56	54	69	72	72	75	76	77	74	72
Female	40	39	41	41	38	37	44	46	31	28	28	25	24	23	26	28
Race/Ethnicity																
White	25	24	23	23	26	25	27	27	49	48	49	51	50	53	56	59
Black	63	64	63	65	60	61	58	60	26	24	24	22	21	19	18	16
Latino	10	10	11	10	12	11	11	10	21	22	22	23	25	25	22	22
Other	2	3	3	3	3	3	4	3	4	6	5	5	5	4	5	3
Age at Admission																
(Average age)	(32.6)	(33.6)	(35.2)	(35.5)	(36.0)	(36.7)	(37.1)	(37.5)	(34.5)	(34.6)	(35.2)	(35.3)	(35.1)	(34.6)	(35.2)	(35.7)
18 and younger	1	1	1	<1	1	<1	1	1	1	1	1	1	1	1	1	1
19–29	31	28	19	18	15	15	15	14	28	29	27	27	29	32	31	30
30–39	53	53	56	55	55	51	49	46	45	42	42	40	39	37	35	31
40–49	13	16	21	23	26	29	31	34	24	24	25	27	26	24	26	29
50 and older	2	2	4	4	4	5	5	6	3	4	6	5	6	6	7	9
Marital Status																
Married	9	10	11	10	11	12	12	10	11	11	10	11	10	10	9	8
Separated/divorced	17	19	19	16	17	19	19	20	22	21	20	19	17	15	16	17
Never married	75	71	71	74	72	69	70	70	68	68	70	71	73	75	75	76
Annual Income																
$999 and lower	59	57	56	59	58	60	56	55	67	69	67	72	73	78	78	74
$1,000–$9,999	28	27	29	24	22	23	26	29	23	21	23	16	15	11	12	16
$10,000 and higher	13	17	16	17	21	18	18	16	10	10	10	12	12	11	10	10
Homeless	28	26	23	21	23	29	24	24	29	25	26	22	29	35	40	41
Criminal Justice Involvement	20	25	30	29	30	33	31	30	16	18	20	19	19	19	16	17
Mental Health Problem	21	22	27	28	29	31	36	36	17	17	18	16	16	16	16	20
Needle Use in Past Year	5	6	6	5	7	7	9	7	64	63	63	63	58	62	68	69
Total (*N*)	***(4,920)***	***(3,266)***	***(3,165)***	***(2,837)***	***(2,291)***	***(2,230)***	***(1,985)***	***(738)***	***(7,372)***	***(8,145)***	***(8,932)***	***(9,151)***	***(10,613)***	***(11,850)***	***(12,210)***	***(4,990)***

[1]Excludes prisoners and out-of-State admissions.
[2]Fiscal Years (FY) run July 1–June 30, with the year named for the January–June portion of the year.
[3]1H FY 2004=7/1/2003–12/31/2003.
SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services

Exhibit 2b. Client Characteristics in Greater Boston State-Funded Substance Abuse Treatment Programs, by Primary Drug[1] and by Percentage: July 1, 1996–December 31, 2003[2]

Demographic Characteristic	Marijuana								Alcohol							
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	1H FY 2004[3]	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	1H FY 2004[3]
Gender																
Male	76	78	76	73	78	77	77	72	80	82	81	82	82	82	79	78
Female	24	22	24	27	22	23	23	28	20	18	19	18	18	18	21	22
Race/Ethnicity																
White	37	32	28	28	29	27	26	31	55	57	55	55	51	51	48	50
Black	39	42	44	47	47	48	49	44	30	29	30	31	32	32	34	33
Latino	20	22	23	21	22	20	22	21	12	11	12	12	14	13	14	14
Other	4	4	4	4	3	5	4	3	3	3	3	3	3	4	4	3
Age at Admission																
(Average age)	(24.0)	(24.2)	(25.1)	(25.4)	(24.3)	(24.8)	(25.2)	(25.7)	(37.6)	(38.1)	(39.1)	(39.4)	(39.3)	(39.8)	(40.1)	(40.8)
18 and younger	33	29	24	19	27	24	22	22	2	2	1	1	1	1	2	1
19–29	43	48	50	56	51	50	52	50	19	17	15	14	14	13	14	13
30–39	18	18	17	18	16	19	18	19	40	42	39	38	37	36	31	29
40–49	5	5	6	5	6	6	7	7	26	27	32	34	35	36	37	38
50 and older	1	1	2	2	1	1	2	2	13	13	14	14	14	15	17	18
Marital Status																
Married	6	6	4	5	5	6	6	6	10	10	10	10	10	11	11	11
Separated/divorced	5	6	6	7	6	7	6	6	25	25	24	22	21	22	21	21
Never married	89	89	90	88	90	88	89	89	65	65	66	69	69	67	68	68
Annual Income																
$999 and lower	58	50	59	55	57	60	64	56	54	54	51	55	57	66	63	55
$1,000–$9,999	28	31	27	27	22	21	21	25	27	25	28	24	22	14	14	20
$10,000 and higher	15	19	14	18	21	19	16	19	19	21	21	20	21	21	23	25
Homeless	8	8	9	10	11	12	9	11	38	40	40	41	43	44	40	39
Criminal Justice Involvement	38	47	53	48	48	50	43	40	24	27	26	24	22	25	23	29
Mental Health Problem	25	31	23	27	25	29	31	34	17	20	21	20	19	21	21	26
Needle Use in Past Year	1	2	2	2	2	2	2	2	4	4	4	5	4	6	5	5
Total (*N*)	***1,119***	***928***	***1,125***	***1,109***	***1,100***	***1,054***	***1,046***	***436***	***11,833***	***10,441***	***11,154***	***11,099***	***11,047***	***10,196***	***8,868***	***3,330***

[1]Excludes prisoners and out-of-State admissions.
[2]Fiscal Years (FY) run July 1–June 30, with the year named for the January–June portion of the year.
[3]1H FY 2004=7/1/2003–12/31/2003.
SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services

Exhibit 3. Percentages of Admissions to State-Funded Substance Abuse Treatment Programs in Greater Boston and the Remainder of Massachusetts,[1] by Drug Used in the Past Month: FY 1997–1H FY 2004[2]

Drug Used Past Month	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	1H FY 2004[3]
Greater Boston								
Alcohol	60	59	59	58	56	53	50	47
Heroin and/or Other Opiates	29	34	35	37	42	45	48	49
Heroin	28	33	34	35	39	42	45	46
Other opiates/synthetics	2	3	3	4	5	6	7	8
Cocaine and/or Crack	34	30	30	28	25	24	24	23
Cocaine (powder)	22	21	21	20	18	17	18	16
Crack	19	16	15	13	12	11	11	11
Marijuana	16	14	14	13	13	11	11	11
Other[4]	8	9	9	10	10	10	11	12
Total (*N*)	***25,470***	***23,008***	***24,653***	***24,478***	***25,334***	***25,586***	***24,440***	***9,609***
Remainder of Massachusetts								
Alcohol	59	57	56	54	51	50	47	46
Heroin and/or Other Opiates	26	32	32	35	37	38	39	39
Heroin	25	30	31	33	34	34	35	34
Other opiates/synthetics	3	4	5	5	6	8	9	11
Cocaine and/or Crack	22	21	21	20	19	19	20	20
Cocaine (powder)	16	16	16	16	15	14	15	15
Crack	12	10	10	10	9	8	9	9
Marijuana	17	18	18	17	16	15	15	15
Other[4]	10	10	10	11	11	11	11	14
Total (N)	***77,673***	***76,891***	***87,205***	***90,919***	***92,638***	***95,249***	***88,349***	***37,945***

[1]Excluding prisoners and out-of-State admissions.
[2]Fiscal Years (FY) run July 1–June 30 with the year named for the January–June portion of the year.
[3]1H FY 2004=7/1/2003–12/31/2003.
[4]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:[1] 1997–2003

Drug Class	1997		1998		1999		2000		2001		2002		2003	
	No.	(%)	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	939	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	1,736	41.6
D	1,617	26.3	1,211	25.6	1,133	27.7	1,093	29.0	982	28.7	1,375	32.7	1,366	32.7
Other	216	3.5	226	4.8	133	3.3	123	3.3	111	3.2	125	3.0	133	3.2
Total Drug Arrests	**6,143**		**4,723**		**4,097**		**3,770**		**3,426**		**4,209**		**4,174**	
Total Arrests	**27,843**		**25,481**		**23,592**		**22,216**		**20,470**		**21,025**		**20,686**	
Drug Percentage of Total Arrests		**23.7**		**18.5**		**17.4**		**17.0**		**16.7**		**20.0**		**20.2**

[1]Includes all arrests made by the Boston Police Department (i.e., arrests for possession, distribution, manufacturing, and trafficking) and includes possession of hypodermic needles, conspiracy to violate false substance acts, and forging prescriptions.
SOURCE: Boston Police Department, Office of Planning and Research

Exhibit 5. Drug Street Prices, Purity, and Availability in Boston: November 2003

Drug	Price	Purity	Availability
Powder cocaine	$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	$250 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–$70 per vial		
GHB	$5 per capful		

SOURCES: New England Field Division, DEA, as of December 2003; *Narcotics Digest Weekly, Vol. 2, 28*, and Vol. 2, 50. National Drug Intelligence Center, Department of Justice, July 15, 2003

Exhibit 6. Trends in HIV and AIDS Cases in Boston[1], by Risk Factor and Year of Diagnosis: [2] Cumulative Cases Reported as of 5/01/2004

HIV and AIDS

Mode of Exposure	1999		2000		2001		2002	
	No.	%	No.	%	No.	%	No.	%
Male Sex with Male (MSM)	123	36.7	123	38.4	120	43.5	125	41.4
Injection Drug User (IDU)	69	20.6	48	15.0	35	12.7	36	11.9
MSM & IDU	9	2.7	4	1.3	4	1.4	11	3.6
Recipient of Blood Product	4	1.2	1	0.3	1	0.4	1	0.3
Heterosexual	47	14.0	42	13.1	27	9.8	46	15.2
Sex with IDU	9	2.7	16	5.0	8	2.9	13	4.3
Sex with bisexual male	2	0.6	1	0.3	1	0.4	1	0.3
Sex with blood product recipient	0	0.0	0	0.0	0	0.0	1	0.3
Sex with partner with HIV/AIDS	36	10.7	25	7.8	18	6.5	31	10.3
Undetermined/Other	83	24.8	102	31.9	89	32.2	83	27.5
Presumed heterosexual, unknown risk of partner[3]	69	20.6	81	25.3	66	23.9	63	20.9
Undetermined/Other[4]	14	4.2	21	6.6	23	8.3	20	6.6
Pediatric	N/A[5]	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	**335**	**–**	**320**	**–**	**276**	**–**	**302**	**–**

[1]Boston cases do not include prisoners.
[2]HIV and AIDS data reflect year of HIV diagnosis.
[3] Risk of partner unknown and primary risks denied; definition revised 7/1/99.
[4]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.
[5]N/A=Not available.
[6]Row totals include cases diagnosed in 2003.
SOURCE: Department of Public Health, AIDS Surveillance Program

Exhibit 6. Trends in HIV and AIDS Cases in Boston[1], by Risk Factor and Year of Diagnosis: [2] Cumulative Cases Reported as of 5/01/2004 (Continued)

AIDS

Mode of Exposure	1994 and Prior		1995		1996		1997		1998	
	No.	%	No.	%	No.	%	No.	%	No.	%
Male Sex with Male (MSM)	2,019	53.1	166	41.4	123	38.7	87	36.0	101	34.5
Injection Drug User (IDU)	964	25.4	115	28.7	90	28.3	66	27.3	76	25.9
MSM & IDU	159	4.2	26	6.5	7	2.2	4	1.7	6	2.0
Recipient of Blood Product	59	1.6	4	1.0	5	1.6	3	1.2	5	1.7
Heterosexual	234	6.2	46	11.5	49	15.4	45	18.6	36	12.3
Sex with IDU	118	3.1	16	4.0	14	4.4	12	5.0	11	3.8
Sex with bisexual male	4	0.1	0	0.0	0	0.0	1	0.4	0	0.0
Sex with blood product recipient	2	0.1	0	0.0	1	0.3	0	0.0	0	0.0
Sex with partner with HIV/AIDS	110	2.9	30	7.5	34	10.7	32	13.2	25	8.5
Undetermined/Other	315	8.3	41	10.2	38	12.3	37	15.3	68	23.2
Presumed heterosexual, unknown risk of partner[3]	214	5.6	25	6.2	23	7.2	23	9.5	55	18.8
Undetermined/Other[4]	101	2.7	16	4.0	15	5.0	14	5.8	13	4.4
Pediatric	51	1.3	3	0.7	5	1.6	0	0.0	1	0.3
Total	**3,801**	**63.9**	**401**	**6.7**	**317**	**5.3**	**242**	**4.1**	**293**	**4.9**

Mode of Exposure	1999		2000		2001		2002		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Male Sex with Male (MSM)	73	34.8	61	30.0	49	30.4	56	31.5	2,769	46.5
Injection Drug User (IDU)	57	27.1	47	23.2	39	24.2	39	21.9	1,529	25.7
MSM & IDU	5	2.4	3	1.5	8	5.0	4	2.2	228	3.8
Recipient of Blood Product	2	1.0	0	0.0	1	0.6	1	0.6	80	1.3
Heterosexual	24	11.4	32	15.8	17	10.6	30	16.9	530	8.9
Sex with IDU	6	2.9	12	5.9	2	1.2	10	5.6	205	3.4
Sex with bisexual male	0	0.0	1	0.5	0	0.0	1	0.6	7	0.1
Sex with blood product recipient	0	0.0	0	0.0	0	0.0	1	0.6	4	0.1
Sex with partner with HIV/AIDS	18	8.6	19	9.4	15	9.3	18	10.1	314	5.3
Undetermined/Other	49	23.3	59	29.1	47	29.2	47	26.4	754	12.7
Presumed heterosexual, unknown risk of partner[3]	44	21.0	47	23.2	37	23.0	36	20.2	538	9.0
Undetermined/Other[4]	5	2.4	12	5.6	10	6.2	11	6.2	216	3.6
Pediatric	0	0.0	1	0.5	0	0.0	1	0.6	62	1.0
Total	**210**	**3.5**	**203**	**3.4**	**161**	**2.7**	**178**	**3.0**	**5,952**	**100.0**

[1]Boston cases do not include prisoners.
[2]HIV and AIDS data reflect year of HIV diagnosis.
[3] Risk of partner unknown and primary risks denied; definition revised 7/1/99.
[4]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.
[5]N/A=Not available.
[6]Row totals include cases diagnosed in 2003.
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 episodes increased, indicating continued high levels of heroin use in Chicago during 2002 and 2003. The rate for heroin ED mentions and the number of heroin-related deaths in 2002 were the highest among the 21 DAWN metropolitan areas. The purity of street-level heroin decreased between 2001 and 2003 from about 24 percent to 16 percent. Many cocaine indicators remain the highest for all substances except alcohol. Cocaine-related treatment episodes 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 and 2003. 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, the number of treatment episodes for marijuana use increased between FYs 2002 and 2003. Between 1998 and 2003, 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 mostly by White youth. LSD and PCP indicators suggest a downward trend in use. Methamphetamine indicators continued to show low levels of use in Chicago, with some exceptions, though use is 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 1998–2002. 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 2002. Data on deaths related to accidental drug poisonings were provided by the Chicago Department of Public Health (1980–2002).

- **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** for the State of Illinois for fiscal years (FYs) 1999–2003 (July 1–June 30) were provided by the Illinois Division of Alcoholism and Substance Abuse (DASA) and include updated data for patients served in FY 2003. National and State-specific treatment admissions data for 1992–2001 were provided by

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the Treatment Episode Data Set (TEDS) maintained by SAMHSA.

- **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 the first three quarters of 2003. Data for adult female arrestees were available for the same time periods.

- **Price and purity data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), for heroin for 1991–2003; the data are preliminary and subject to updating. The National Drug Intelligence Center's (NDIC) publication *Narcotics Digest Weekly* provided wholesale, midlevel, and retail illicit drug prices in Illinois for July–December 2003 (National Drug Intelligence Center 2003). Price and purity data on drug samples analyzed through March 2004 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) analysis of methamphetamine lab seizures in Illinois between 2001 and 2002 is described in the December 2003 Chicago CEWG report. National and Illinois data on drug availability, demand, production, cultivation, and distribution were available from the National Drug Threat Assessment and the Illinois Drug Threat Assessment reports, National Drug Intelligence Center, U.S. Department of Justice, and are described in the December 2003 Chicago CEWG report. Data on drug seizures and arrests were taken from the Drugs and Drug Abuse State Factsheet for Illinois provided by the DEA. The Office of National Drug Control Policy (ONDCP) report on Profile of Drug Indicators, Chicago, Illinois, published in April 2004, as well as the National Drug Intelligence Center 2003 Illicit Drug Prices: July 2003–December 2003 report were reviewed. Data from the National Forensic Laboratory Information System (NFLIS) were used to report differences between different drugs in the relative amounts submitted for testing in Illinois and Chicago. The 2003 data are preliminary. Ethnographic data on drug availability, prices, and purity are from observations and interviews conducted by the Community Outreach Intervention Projects (COIP), School of Public Health, University of Illinois at Chicago (UIC).

- **Survey data on student and household populations** were derived from several sources. The national Monitoring the Future (MTF) Study conducted by the Institute for Social Research, University of Michigan, through support from the National Institute on Drug Abuse (NIDA), provided data on drug use among 8th, 10th, and 12th grade students (1991–2003). National and local data on drugs used by 9th–12th grade students (1991–2003) were derived from the Youth Risk Behavior Surveillance System (YRBSS) survey, conducted by the Centers for Disease Control and Prevention (CDC) and other State and local health education agencies. The Illinois Youth Survey is described in the December 2003 Chicago CEWG report. National data on substance use and abuse were provided by SAMHSA's 2002 National Survey on Drug Use and Health.

- **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. The Family Process and Risk Reduction Study (Family Process), funded by NIDA, assesses a human immunodeficiency virus (HIV) prevention intervention that targets young injection drug users and their parents. Participants are aged 18–25 and have injected in the last 6 months (n=293 as of April 2004). All data from the Family Process Study are preliminary. Current non-injecting heroin users (NIHUs) age 16–30 were recruited for the NIDA-funded NIHU Study to evaluate the rate of transition to injecting and drug and sexual practices associated with HIV, hepatitis B (HBV), and hepatitis C (HCV) infections (n=605 as of April 2004).

- **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. The CDPH Office of HIV/AIDS Surveillance provided data through 2003 (2003 data are preliminary). 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). Most 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.

According to DAWN ED data, Chicago has been reporting the highest ED drug mentions among the 21 DAWN sites since 2000. Drug-related deaths reported in DAWN totaled 711 in Chicago in 2002, a decline from 854 in 2001, and the majority involved more than 1 drug. The CDPH reported 363 total deaths from accidental drug poisoning in 2002, a slight increase from the previous year. While DAWN mortality cases and CDPH death certificates differ in the information they provide, both indicators suggest that total drug-related deaths have remained stable at high numbers between 2000 and 2002. According to APORS, 718 children in Chicago were exposed to some drug at birth in 2002, which corresponds to an annual rate of 150 exposures per 10,000 live births.

Cocaine/Crack

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

Of the 711 drug-induced or drug-related deaths reported by the DAWN ME for Cook County in 2002, 62 percent (443) had a mention of cocaine. Similarly, the 2002 CDPH death certificate data indicated that 51 percent of deaths ascribed to accidental poisoning cited exposure to cocaine. The 2002 total reported in the DAWN ME data is only slightly lower than the 451 cocaine-related deaths reported in 2001. Thus, cocaine remains a factor in more deaths in the Chicago area than any other illicit drug. However, multiple-drug use was involved in 65 percent of these cases.

In 2002, ED mentions for cocaine remained at high levels, and they represented a 52-percent increase over 10,702 mentions in 1995. The rate of mentions per 100,000 population in 2002 (275) remained level from the previous year (277) (exhibit 1). The December 2003 Chicago CEWG report provides a more complete description of DAWN ED data.

The FY 2003 Illinois drug treatment report indicates that cocaine abuse remained one of the most frequent reasons for entering treatment (excluding primary alcohol-only abuse) (exhibit 2). A total of 33,882 persons were treated for cocaine-related problems in Illinois during FY 2003, which reflected a 20-percent increase from 28,131 in 2002. Cocaine was the most commonly mentioned secondary drug among persons treated for primary heroin-related problems. Between 2002 and 2003, the proportion of cocaine-related episodes remained relatively stable for all demographic groups. In FY 2003, African-Americans remained the largest proportion of total persons treated (62 percent) for cocaine abuse. Males accounted for more services rendered (58 percent) than females. Smoking continued to be the most common route of cocaine administration (85 percent) in FY 2003.

According to the 2003 ADAM report, 51 percent of adult male arrestees tested cocaine-positive (exhibit 3), a level slightly higher than in 2002 (48 percent). The 2003 level is a 38-percent increase from 2000 (37 percent) and the highest proportion since 1997. In 2003, 33 percent of adult female arrestees tested cocaine-positive, which is a 44-percent decrease from the last reporting period in 2000 (59 percent).

Cocaine use appears common among heroin users in Chicago. In an ongoing study of non-injecting heroin users (NIHU Study), 70 percent of participants reported ever using powder cocaine, and 33 percent used it in the past 6 months. Crack cocaine use was reported by 70 percent of the study participants, and 56 percent reported using crack in the past 6 months. Among injecting drug users (Family Process study), 85 percent reported ever using powder cocaine, and 50 percent used it in the past 12 months. Somewhat fewer participants had ever used crack cocaine (78

percent), but 59 percent reported using it in the past 12 months.

According to IDPH's Adverse Pregnancy Outcome Reporting System, cocaine exposure among children at birth in Chicago has been decreasing since 1999, when 500 exposures were reported. In 2002, 354 children were exposed to cocaine at birth, which corresponds to a rate of 73.8 per 10,000 live births in Chicago, a 29-percent decrease from 1999. Although steadily decreasing, cocaine continues to be the most often cited drug exposure among children in Chicago. The highest proportion of such births occurred among African-American mothers (approximately 78 percent) and to mothers between 25 and 34 years of age.

State (ISP) and Federal (NFLIS) labs reported that cocaine was the drug most often received for testing after cannabis. Cocaine purity for samples weighting 2–25 grams tested by the ISP was 71 percent in 2002 and 81 percent in 2003, but analyses were conducted on only a few samples, and reasonable comparison with earlier data is not possible. The June 2003 CEWG report includes information on drug seizures and ISP crime lab data for 1991–2001.

Cocaine prices have not changed since the June 2003 report. Ounce prices for powder cocaine were reported by street sources to be between $400 and $800, depending on the drug's quality and the buyer's relationship to the seller. Gram prices for powder and rock cocaine ranged from $50 to $150, with most reports around $75. Ounces of crack cocaine ("rock") sold for about the same price as ounces of powder cocaine, with reports ranging from $900 to $1,600. The NDIC reported the wholesale price of kilograms of cocaine in Chicago was $18,000–$20,000 for powdered cocaine and $22,000–$24,000 for crack. The June 2003 report contains more detailed information about drug prices in Chicago.

According to the 2003 YRBSS study, the proportion of lifetime cocaine/crack use among Chicago-area 9th through 12th grade students remained level at about 5 percent between 1995 and 2003. Male students reported cocaine/crack use nearly twice as often as their female counterparts during this period. The 2002 Illinois Youth Survey of Chicago-area 8th through 12th grade students reported a similar level of use (about 5 percent) between 1998 and 2002. However, 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 December 2003 Chicago CEWG report provides a more complete discussion of the 2002 Illinois Youth Survey.

Heroin

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

Of the 711 total drug-induced or drug-related deaths reported by the DAWN ME for Cook County in 2002, 48 percent (339) had a mention of heroin/morphine. Deaths related to heroin/morphine increased 10 percent in 2002, following a 30-percent decrease between 2000 (438) and 2001 (307). Multiple drug use was involved in 77 percent of these cases. After reporting 1 death per year in 2000 and 2001 caused by accidental heroin exposure, CDPH reported 18 deaths in 2002.

The rate of heroin 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. The December 2003 Chicago CEWG report provides a more complete description of DAWN ED data.

The number of persons treated for heroin use in State-supported programs in FY 2003 was 34,615, an increase of 58 percent from FY 2002 (exhibit 2). The proportion of persons treated for heroin use 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. Pronounced differences exist between African-Americans, Hispanics, and Whites treated for heroin use in 2003 in the primary route of heroin administration. In FY 2003, injection was the primary means for administering heroin for 10 percent of African-Americans, 29 percent of Hispanics, and 50 percent of Whites. Sniffing was the primary means for 83 percent of African-Americans, 62 percent of Hispanics, and 43 percent of Whites.

Between FYs 2002 and 2003, the number of persons treated for heroin use was stable across all demographic groups. African-Americans accounted for most of the episodes (68 percent), followed by Whites (22 percent) and Hispanics (7 percent). Heroin-related episodes were slightly more prevalent among males (55 percent) than females. A recent report (Kane-Willis and Schmitz-Bechteler 2004)

examined age and race trends among persons treated for heroin use in Illinois and found that Whites were far more likely to be age 18–24 (41 percent) than were African-Americans (2 percent) and Hispanics (20 percent).

According to the 2003 ADAM report, 25 percent of adult male arrestees tested opiate positive (exhibit 3), nearly unchanged from 24 percent in 2002, 22 percent in 2001, and 27 percent in 2000 (exhibit 3). The proportion of adult female arrestees testing opiate positive decreased significantly between 2000 and 2003, from 40 to 22 percent, respectively.

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

According to the 2003 DMP report, availability of heroin in Chicago, especially South Asian heroin, continued (exhibit 4). Heroin from other geographic source areas, including South America and Mexico, was also available. The purity of street-level heroin peaked in 1997 at about 31 percent and has since declined. In 2003, South American heroin exhibits purchased by DMP in Chicago averaged 15.8 percent pure, a 23-percent decrease from 2002. However, the average price per milligram pure remained low for South American heroin in 2003 at $0.46. Southwest Asian exhibits averaged 19.8 percent pure in 2002 and 18.4 percent pure in 2003. Although its purity level did not change significantly, the price per milligram pure for Southwest Asian heroin exhibits increased from $0.39 in 2002 to $0.52 in 2003.

According to ISP, the amount of heroin analyzed in Cook County remained level between 2000 and 2002 at around 12 kilograms, but it increased to 21 kilograms in 2003.

Participants in a study of young non-injecting heroin users reported high availability of heroin on the streets of Chicago. Sixty-three percent reported "a lot" (the highest rating) of heroin on the street in the past 30 days. Use of brand name heroin was reported by 30 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"); 31 percent thought the quality was "good" and 50 percent perceived the heroin quality as "fair."

Heroin prices have not changed since the June 2003 report. On the street, heroin is commonly sold in $10 and $20 units (bags), though bags for as little as $5 were 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 11–13 $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 heroin use. In Chicago, as expected, heroin use among 9th through 12th grade students is higher. In 2003, 3.7 percent of students reported lifetime use of heroin, compared with 2.5 percent in 2001 and 3.1 percent in 1999. The gender gap among students who have tried heroin appears to be closing. In both 1999 and 2001, male students were on average five times as likely to have used heroin in their lifetime as females. In 2003, the gap between males and females was nearly threefold.

APORS data indicated that opioid toxicity was decreasing between 2000 and 2002 among infants tested for controlled substances. In 2000, 114 children tested positive for opiates, which corresponds to a rate of 22.4 per 10,000 live births. The rate decreased in 2001 to 18.8, and it decreased again in 2002 to 16.1. In 2002, and similarly in 2000 and 2001, most infants who tested positive to heroin exposure at birth were born to African-American mothers (69 percent) and to mothers age 25–34.

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 $0.75–$1.00 per milligram.

Codeine ED mentions steadily increased after 1995 and peaked in 2000, with 83 total mentions reported. In 2001, total mentions decreased slightly to 79, and they continued to decrease in 2002 to 51 mentions; these changes were not statistically significant. After a 51-percent decrease in codeine-related deaths reported from sentinel DAWN ME sites in the 6-county Chicago area between 2000 and 2001, codeine-related deaths remained level in 2003 with 41 cases reported. 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 (nonsignificant change) from the previous year, from 355 to 335. According to the CDPH, methadone was mentioned on 25 death certificates as the cause of death in 2002.

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. Seventy percent of NIHU Study participants reported ever trying codeine, Tylenol 3 and 4, Dilaudid, Demerol, morphine, or methadone without a legal prescription.

Because of a change in the reporting of other opioids in FY 2003, treatment data cannot be compared to the previous years. Treatment services rendered related to the use of other opioids, tranquilizers, or sedatives accounted for 2 percent of total treatment episodes (excluding alcohol). Use of other opioids and tranquilizers was slightly more common among females (55 percent), and Whites accounted for the majority of more episodes (68 percent) in this drug category. The majority of persons treated for other opioids, tranquilizers, or sedatives used the drugs orally (56 percent). Twenty-five percent reported inhaling these drugs, and 13 percent injected.

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 one drug-related death reported in 2002.

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 nearly 12 percent from 2001. Marijuana mentions remained higher for males (66 percent) and for African-Americans (35 percent) in 2002, although the gap between African-American and White patients decreased since 1999.

Marijuana users represented 19 percent of all treatment episodes in Illinois in FY 2003 and 27 percent of episodes when those for primary alcohol abuse were excluded; these proportions are the same as in FY 2002. The number of treatment episodes for marijuana increased from 20,773 in FY 2000, to 25,626 in FY 2001, to 26,371 in FY 2002, and to 32,077 in FY 2003 (exhibit 2). Marijuana was the most commonly reported secondary drug among persons receiving treatment for alcohol. During FY 2003, treatment episodes for marijuana were highest for males (77 percent) and for Whites (47 percent).

According to 2003 ADAM data, 53 percent of adult male arrestees tested positive for marijuana (exhibit 3), a level close to proportions in 2002 and 2001. The proportion of adult female arrestees who tested positive for marijuana increased from 25 percent in 2000 to 39 percent in 2003.

According to APORS, cannabis toxicity in children at birth increased sharply from 28 cases in 1999 to 112 in 2001. The number of children exposed to cannabis at birth decreased in 2002 to 78, which corresponds to a rate of 16 per 10,000 live births. The majority of these infants were born to African-American mothers (74 percent) and to mothers between the ages of 20 and 24.

Marijuana use was common among the young heroin users participating in NIHU studies. Sixty-five percent of non-injecting heroin users and 76 percent

of young injectors smoked marijuana in the 3–12 months prior to their interview.

According to the 2003 YRBSS data, the proportion of 9th through 12th grade students in Chicago who reported lifetime and past-30-day marijuana use decreased slightly between 2001 and 2003. In 2001, 45 percent of students reported lifetime use, and 23 percent reported use in the past 30 days. In 2001, these figures were 49 and 29 percent, respectively. Thirteen percent of students reported initiating marijuana use before age 13. The proportion of male and female students reporting past use was nearly equal, but male students more often reported first use before age 13. In 2003, 8 percent of high school students in Chicago reported using marijuana on school property during the prior 30 days. The 2002 Illinois Youth Survey also 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 remained level 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–$250. On the street, marijuana was most often sold in bags for $5–$20 or as blunts. The NDIC reported the following prices for marijuana in Chicago in 2003: $900–$1,200 per pound, $50–$75 per ounce, and $3–$5 per gram.

Street-level reports indicate that some marijuana users believe that hydroponic marijuana grown to contain other drugs, including heroin, cocaine, and phencyclidine (PCP), is available.

Both ISP and NFLIS laboratories analyzed more marijuana samples than any other drug. Forty-seven percent of drug samples analyzed by the NFLIS for Chicago were identified as cannabis.

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. 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 episodes (excluding primary abuse of alcohol only) in FYs 2001 and 2002, up from 2 percent in FY 2000. In FY 2003, DASA began reporting methamphetamine and amphetamine treatment episodes separately. Methamphetamine treatment episodes (3,582) outnumbered those for amphetamines (476). Most treatment episodes for methamphetamine involved Whites (97 percent) and males (58 percent); a similar trend was observed for amphetamine patients (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 an increase in use.

The 2003 YRBSS data indicated that 3.7 percent of high school students in Chicago used methamphetamine one or more times during their life. Male students were nearly six times more likely to have tried methamphetamine than female students. The YRBSS began to report methamphetamine use in 1999, when 4.2 percent of students admitted lifetime use. The percentage of methamphetamine use among students decreased in 2001 to 2.8 percent, before increasing slightly in 2003.

Data from the ISP indicated that more methamphetamine continued to be seized than cocaine or heroin in nearly 50 percent of Illinois counties in 2003. Between 2002 and 2003, the amount of methamphetamine received by ISP from Cook County decreased from 7.5 to 5.1 kilograms, respectively, while the total methamphetamine received from all Illinois counties remained at about 27 kilograms for both years. According to the NFLIS 2003 report, 0.21 percent of the items analyzed in Chicago were methamphetamine.

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 clubgoers 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, 20 percent of participants reported ever trying amphetamine or methamphetamine. Among injectors in the Family Process study, 17 percent of participants reported amphetamine use, and 6 percent used it in the previous 12 months.

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. The cost of Ritalin on the West Side of Chicago was reported to be $10 per pill. Some study participants report that Ritalin was readily available in their schools and that students knew which students had been prescribed Ritalin and often requested the drug from them.

Methamphetamine prices have not changed since June 2003, when it was reported that bags of methamphetamine sold for $20. Most drug users reported that the drug remained difficult to obtain. 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. There was one street report of methamphetamine being sold at a South Side drug market. According to the NDIC 2003 report, methamphetamine cost $1,000–$1,300 per ounce and $80–$100 per gram.

Depressants

Three patterns of depressant-in-combination use have been common in Chicago and throughout Illinois:

- 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 (*n*=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 data for other opioids, tranquilizers, and sedatives/hypnotics indicate that depressants are not the primary drugs of choice for most users. According to DASA, there were 2,399 treatment episodes in publicly funded programs in Illinois in FY 2003. Primary opioid, tranquilizer, and sedative/hypnotics users represented only about 2 percent of all treatment episodes, excluding alcohol.

Lifetime use of tranquilizers or barbiturates without a prescription (Valium, Elavil, Ativan, Xanax) was reported by 32 percent of young non-injecting heroin users. Fourteen percent reported using in the past 30 days. Young injectors reported moderate use of barbiturates. In the Family Process study, 41 percent reported ever using barbiturates, and 30 percent used them during the previous 12 months.

The 2002 APORS data indicate that the rate of infants testing positive for barbiturates has been decreasing since 2000. In 2002, the rate of children exposed to barbiturates at birth was 0.4 per 10,000 live births, compared with 0.8 per 10,000 in 2001 and 1.4 per 10,000 in 2000.

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 prior 7 years and reflected a 93-percent decline from the rate of 5 per 100,000 in 1995.

As observed with LSD, 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 have been uneven, but overall the number of episodes in publicly funded treatment programs in Illinois has been relatively high, compared with trends in the 1990s. After an increase in episodes from FY 2000 (517) to FY 2001 (544), they decreased 12 percent in FY 2002 (479) and were level in FY 2003 (472) (exhibit 2).

According to the 2003 ADAM report, the percentage of adult male arrestees testing positive for PCP decreased between 2002 and 2003, from 2.2 percent to 1.3 percent. PCP use appears to be more common among adult female arrestees; 5.6 percent of female arrestees tested positive for PCP in 2003.

In the study of young non-injecting heroin users, 36 percent of participants reported ever trying LSD, mescaline, mushrooms, or other hallucinogens, but only a few (5 percent) reported use in the 6 months prior to their interview. Among young injectors, 75 percent of participants reported ever trying hallucinogens, and 26 percent reported use in the 12 months prior to their interview. Whites were much more likely than African-Americans to report recent use of hallucinogens.

Recent reports from young heroin snorters indicate that PCP use may be more common in this population. Fifty-one percent of study participants reported ever trying PCP, and 14 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). Further discussion of the Illinois Youth Survey is provided in the December 2003 CEWG report.

The amount of PCP samples received by the ISP laboratory for analysis decreased significantly between 2002 and 2003, from 4.2 kilograms to 0.56 kilograms.

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 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 it ranked 10th in 2002.

Illinois DASA began reporting treatment data related to "club drugs" for the first time in FY 2002, when 50 such episodes were reported. In FY 2003, 79 episodes 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.

MDMA samples sent to ISP from Cook County have been decreasing since 2000, when 6.7 kilograms were analyzed in the State laboratory. In 2001, 4.8 kilograms of MDMA were received by ISP, which decreased to 1.5 kilograms in 2002 and 0.8 kilograms in 2003. The NFLIS reported that 0.16 percent of items analyzed for Chicago were MDMA.

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. These prices parallel the 2003 NDIC report: wholesale prices ranged between $10 and $12 per tablet and the retail price was $25–$35 per dosage unit. Along with other club drugs, ecstasy 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, 35 percent reported MDMA use.

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 they decreased to 1 in 2002.

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

Ketamine, an animal tranquilizer, is another depressant with hallucinogenic properties and is often referred to as "Special K." Ketamine ED mentions totaled 10 in 2002, compared with 14 in 2001. The rate of ketamine ED mentions per 100,000 population (0.1) also remained unchanged. DASA reported only two patients served for ketamine use in FY 2003 in publicly funded treatment programs in Illinois. As reported in the June 2003 Chicago CEWG report, street reports indicate that ketamine is usually sold in $5–$30 bags of powder or in liquid form. The drug is somewhat available at rave parties or in clubs frequented by younger adolescents.

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, 69 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 2003, 12,041 cases of HIV and AIDS were reported to the State. Of those, 74 percent were in Cook County, with an urban prevalence of 63 percent and a suburban prevalence of 11 percent. 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 HIV/AIDS cases in Chicago indicated that by December 2003, 7,051 HIV cases and 20,850 AIDS cases were reported. Gender and demographic data on these AIDS cases are available in the June 2003 Chicago CEWG report.

In Chicago, between 1990 and 2002, IDUs as a proportion of AIDS cases peaked at 33 percent in 1996 and then steadily decreased to 24 percent as of 2002. Only 19 percent of HIV cases reported in 2003 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 (43 percent in 2002). Heterosexual transmission of HIV/AIDS has increased by 1 percent each year since 1998, reaching 18 percent in 2002. Among African-American and Hispanic women, heterosexual contact remains the leading mode of HIV transmission, while among White women, injection drug use was the principal mode of transmission.

In 2002, the number of deaths from AIDS declined 5 percent in Illinois and 9 percent in Chicago compared to 2001, a level approximately equal to the number of deaths in 2000. Given the long latency between HIV infection and AIDS diagnosis, these figures do not reflect the full scope of the epidemic. Data from the authors' 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. Recent studies of young IDUs indicate high levels of HIV risk behaviors but very low levels of HIV infection, particularly among those who reside in the suburbs. It should be noted, however, that the studies are not directly comparable, because each had unique sampling and recruitment strategies. 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.

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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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	…[1]	6
2001	277	203	89	1	7
2002	275	220	78	1	7

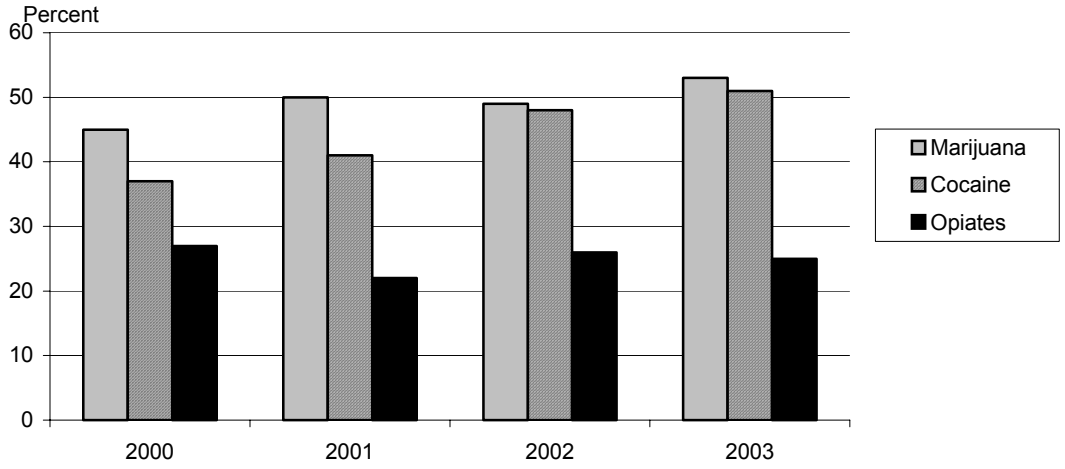
[1]Dots (…) indicate that an estimate with a relative standard of error greater than 50 percent has been suppressed.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 2. Illinois Patients Served in Publicly Funded Treatment Programs by Primary Drug of Abuse: FY 2000–FY 2003

Primary Drug	FY 2000			FY 2001			FY 2002			FY 2003[1]
	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	33,882
Heroin	11,733	8,121	19,854	13,745	10,718	24,463	10,747	11,162	21,909	34,615
Cannabinoids	12,484	8,289	20,773	14,253	11,373	25,626	11,811	14,560	26,371	32,077
Hallucinogens	290	227	517	323	221	544	237	242	479	472
Stimulants[2]	577	693	1,270	1,969	1,802	3,771	1,517	1,673	3,190	4,508

[1]Data by half-year not available in FY 2003.
[2]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[1]



[1]Data for 2000 are for the first through third quarters; data for 2001 are for the fourth quarter only; and data for 2003 are for the first three quarters.
SOURCE: ADAM, NIJ

Exhibit 4. Heroin Price and Purity Trends in Chicago, by Geographic Origin: 2000–2003

Trend	2000			2001			2002			2003[4]	
	SEA[1]	SWA[2]	SA[3]	SEA	SWA	SA	SEA	SWA	SA	SWA	SA
Purity (%)	16.9	20.2	23.8	20.7	20.8	19.5	20.8	19.8	20.4	18.4	15.8
Price Per Milligram Pure	$1.16	$0.32	$0.48	$0.45	$0.41	$0.71	$0.71	$0.39	$0.43	$0.52	$0.46

[1]Southeast Asia.
[2]Southwest Asia.
[3]South America.
[4]SEA data are not available for 2003.
SOURCE: DMP, DEA

Patterns and Trends in Drug Abuse: Denver and Colorado

Bruce Mendelson, M.P.A.[1]

ABSTRACT

Most amphetamine and methamphetamine indicators have increased in the past 2 years. Specifically, methamphetamine treatment admissions reached their highest level ever in 2003, and amphetamine-related deaths from 2000 through 2003 increased 85 percent 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 2003, even though this percentage decreased 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 1997–2003 period. Cocaine indicators were mixed in the past 2 years. Both treatment admissions and new users in treatment remained relatively stable. However, cocaine-related deaths increased in 2003, as did hospital discharges and the proportion of arrestees with positive cocaine urine screens. A mixed pattern is also the circumstance for heroin indicators, with hospital discharges and ED mentions increasing, ADAM data stable, and deaths, treatment admissions, and new users in treatment 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 that constitute the Denver primary metropolitan statistical area (PMSA): Arapahoe on the southeast, Adams on the northeast, Jefferson on the west, and Douglas on the south. In recent years, Denver and the surrounding counties have experienced rapid population growth. According to the 2000 census, the Denver PMSA population was 2,143,991. By the end of 2004, this is expected to increase by 6.5 percent to 2,282,264. In general, Colorado has been one of the top five fastest growing States in the country. Statewide, the population is expected to increase from the 2000 census figure of 4,335,540 to 4,626,199 by the end of 2004, or by 6.7 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.
- Its 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 4.9 percent as of March 2004, which is down slightly from 5.6 percent in September 2003. As for the Denver metropolitan area, the unemployment rate was 5.9 percent as of February 2004, about the same as a year earlier.

[1]The author is affiliated with the Alcohol and Drug Abuse Division of the Colorado Department of Human Services.

Data Sources

Data presented in this report were collected and analyzed in April and May 2004. Although these indicators reflect trends throughout Colorado, they are dominated by the Denver metropolitan area. Sources used to compile this report are described 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 metropolitan area 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 2002 were provided by DAWN, OAS, SAMHSA.

- **Statewide hospital discharge data** for 1997–2003 were available from the Colorado Hospital Association through the Colorado Department of Public Health and Environment, Health Statistics Section. Data included are 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/Alcohol Coordinated Data System (DACODS) reports** are completed on clients at admission and discharge from all Colorado alcohol and drug treatment agencies that receive public monies. Annual figures are given for 1997 through 2003. DACODS data are collected and analyzed by the Alcohol and Drug Abuse Division (ADAD), Colorado Department of Human Services.

- **Availability, price, and distribution data** are available from local Drug Enforcement Administration (DEA), Denver Field Division (DFD), officials in their second quarter fiscal year (FY) 2004 report.

- **Death statistics and communicable disease data** are available from the Colorado Department of Public Health and Environment (CDPHE). Data are presented for 1997 to 2003.

- **Rocky Mountain Poison and Drug Center (RMPDC) data** are presented for Colorado. The data represent the number of calls to the center regarding "street drugs" from 1996 through 2003.

- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program of the National Institute of Justice (NIJ) based on quarterly studies. ADAM data in Colorado are collected and analyzed by the Division of Criminal Justice. In 2002, NIJ changed ADAM data collection instruments and methods, including use of probability sampling of adult male arrestees. Thus, no ADAM data trend analysis is presented. Rather, 2001, 2002, and 2003 use percentages by drug type are indicated.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine indicators were mixed from 2001 to 2003, with some increasing, some stable, and some declining.

Denver metropolitan cocaine ED mentions per 100,000 population increased steadily from 53 in 1996 to 87 in 1999, but declined slightly to 69 in 2001. However, they increased again to 82 in 2002, although the increase was not statistically significant.

Also, statewide hospital discharge data (exhibit 1) showed that cocaine mentions per 100,000 population increased from 57.7 in 1997 to 62.8 in 1998, and remained relatively stable through 2001 (63.2 per 100,000). However, in 2002 and 2003, the cocaine rates increased sharply to 73.6 and 77.9 per 100,000 population, respectively.

In 1996, there were 47 calls to the RMPDC concerning cocaine. Calls remained at about this level (i.e., 50 calls) through 1999 and increased slightly to 59 calls in 2000. However, in 2001, cocaine calls more than doubled to 127, and they declined only slightly to 115 in 2002. Moreover, in 2003, RMPDC cocaine-related calls increased to about the 2001 level (126).

The proportion of cocaine treatment admissions declined from 1997 (27.1 percent) through 2000 (21.1 percent), but it was stable through 2003 (21.9 percent) (exhibit 2). As shown in exhibit 3, the proportion of new cocaine users increased slightly from 13.8 percent in 1997 to 17 percent in 2000, declined to 14.9 percent by the end of 2002, but increased to 16.5 percent during 2003.

Treatment admission data indicate that the proportion of cocaine admissions who reported injecting the drug remained relatively stable from 1997 (11.6 per-

cent) through 2002 (11.4 percent) but declined to 9.4 percent in 2003. Smoking percentages had declined steadily from 65.4 percent in 1997 to 57.5 percent in 2001 but rebounded to 62.9 percent in 2003. Conversely, inhalation had been steadily increasing from 19.4 percent in 1997 to 26.1 percent in 2001, but that proportion declined slightly to 23.5 percent in 2003.

In general, the race/ethnicity proportions for cocaine treatment admissions have been changing somewhat. Whites accounted for the largest percentage of cocaine admissions in 2003 (44.7 percent). However, this is a small decline from their proportion of total cocaine clients in 2000 (48.2 percent). The proportion of Hispanic cocaine admissions increased dramatically from only 19.3 percent in 1997 to 28.8 percent in 2000. While this proportion declined to 26 percent in 2001, it rose to 2000 levels in 2002 (28 percent) and stayed at that level in 2003 (28.9 percent). Conversely, the proportion of African-American cocaine admissions dropped sharply from 33.2 percent in 1997 to only 19.5 percent in 2001, but this proportion increased slightly in 2002 (23 percent) and in 2003 (23.6 percent).

Likewise, age categories have been changing since 1997. In 1997, 56.1 percent of cocaine admissions were younger than 35; this decreased to 49.9 percent in 2003. Conversely, cocaine admissions age 35 and older climbed relatively steadily during the same period, from 43.9 to 50.2 percent. Cocaine admissions remain predominantly male, with the proportion growing slightly from 1997 (56.9 percent) through 2003 (62.1 percent).

Cocaine death mentions (single and in combination with other drugs) in the Denver metropolitan area more than doubled from only 56 in 1997 to 126 in 2001. However, such deaths declined slightly to 108 in 2002. Statewide, cocaine deaths climbed from 92 in 1997 (23.6 per million) to 146 in 1999 (36.1 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). Provisional data from 2003 place cocaine deaths at 179 (39.2), the highest number and rate in the time period indicated.

As to recent ADAM data for a sample 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 positive. However, in 2003, 38.3 percent of males and 52.5 percent of females tested positive for cocaine.

The Denver Field Division of the DEA reports that Colorado "is an established distribution point for major cocaine organizations transporting large drug shipments from Mexico and distributing them throughout the United States."

Seizure data from the Federal-wide Drug Seizure System (FDSS) also show the widespread availability of cocaine in Colorado. According to the recent Colorado Drug Threat Assessment produced by the National Drug Intelligence Center (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: $14,000–$18,500 per kilogram and $600–$700 per ounce in the Denver metropolitan area, with purity in the 16 to 90 percent range (average 76 percent) and $14,000–18,000 per kilogram and $500–900 per ounce, with purity in 20 to 82 percent range (average 64 percent), in western Colorado.

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 furthered reports about increased use among Hispanics. For example, treatment programs in southeastern Colorado report increased 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 and now they are using it."

Programs around the State report some new users, but they mostly describe older clients (i.e., 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, most heroin indicators were mixed.

DAWN data show that the rate of heroin ED mentions per 100,000 population nearly doubled from 1996 (22) to 2000 (41). This rate remained stable in 2001 at 40 per 100,000 population. However, in 2002, the 43 heroin mentions per 100,000 represented a significant 9.8-percent increase over the 40 per 100,000 reported in 2001.

Similarly, hospital discharge data (exhibit 1) indicate that narcotic analgesic mentions per 100,000 population climbed steadily from 37.5 in 1997 to 68.7 in 2003 (an 83.2-percent increase).

Heroin-related calls to the RMPDC were relatively steady between 1996 (20 calls) and 1998 (22 calls), but they 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. However, in 2003, heroin RMPDC calls increased to 28.

Among Colorado treatment admissions (exhibit 2), the proportion and number for heroin remained fairly stable from 1997 (13.7 percent) through 2001 (14.0 percent), with a slight decline to 12.3 percent during 2002. Data for 2003 show heroin admissions remained at about the prior year's level (13 percent). The proportion and number of new heroin users entering treatment, after increasing from 16.5 percent in 1997 to 20.3 percent in 2000, began a steady decline to 15.5 percent in 2003 (exhibit 3). This is the lowest such proportion in the time period shown.

Like cocaine, there have also been some changes in the demographics of users entering treatment for heroin. The proportion of female heroin admissions remained relatively stable from 1997 (33 percent) through 2003 (32 percent). However, race/ethnicity proportions have changed slightly during this same period. Whites have increased as a percentage of total admissions from 61.5 percent in 1997 to 64.7 percent in 2003. Conversely, from 1997 through 2002, the proportion of Hispanics decreased from 27.2 to 22.8 percent. However, in 2003, the proportion of Hispanic clients rose somewhat to 24.2 percent. Also, the 25-and-younger age group has increased as a percentage of heroin admissions from only 15.1 percent in 1997 to 19.6 percent in 2002. Interestingly, during 2003, the proportion of heroin admissions who were 25 and younger declined to only 14.5 percent.

Accompanying the heroin client demographic realignments were small changes in route of administration, with heroin smoking and inhalation becoming more common. In 1997, only 7.3 percent of treatment admissions reportedly smoked or inhaled heroin, compared with 8.9 percent in 1998, 8.6 percent in 1999, 8.5 percent in 1999, 10.1 percent in 2000, 9.6 percent in 2001, and 11.9 percent in 2002. However, in 2003, the combined percentage of smokers and inhalers declined slightly to 11.3 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. However, in 2002 such deaths decreased to 64. Statewide, opiate-related deaths increased from 141 (36.2 per million population) in 1997 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. Provisional data for 2003 show that opiate-related deaths decreased slightly to 152, or 33.3 per million population.

According to recent ADAM data for a sample of Denver arrestees, in 2001, 5.2 percent of males and 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 2003, male arrestees again showed a slightly higher percentage of heroin-positive urines (6.8 percent) than female arrestees (6.1 percent).

The DEA reports that heroin availability is increasing in Colorado. As stated in the DEA's most recent quarterly report, "there were significant heroin seizures in western Colorado in early 2004. In some instances, multi-pound quantities of heroin were discovered in vehicles traveling eastbound to Denver. Intelligence and investigative information gleaned from the seizures indicated that the heroin originated with sources of supply based in Mexico." Heroin can be obtained for about $1,050–$1,200 per ounce in the Denver area, with purity placed at 25 percent (street level).

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, they 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" rose from 22 in 1995 to 34 in 2002. Although the 2002 rate was down from 2000 (38) and 2001 (41) rates, it still constituted a significant 50.1-percent increase from 1995. Regarding specific narcotic analgesics, the numbers of hydrocodone/combination ED mentions climbed from 65 in 1995 to 150 in 2002, a significant increase of 130.8 percent. Likewise, oxycodone/combination (which includes OxyContin) ED mentions increased from 57 in 1995 to 116 in 2002 (a significant increase of 103.5 percent). Also, as discussed above in the heroin section , statewide opiate-related hospital discharges increased 83 percent from 1997 to 2003.

Other opiates treatment admissions more than doubled from 254 in 1997 (2.2 percent of total) to 573 in 2003 (4.2 percent) (exhibit 2). However, the percentage of new users during this time has remained relatively stable (19.3 percent in 1997, 21 percent in 2000, and 21.5 percent in 2003).

Opiate-related death mentions in the Denver metropolitan area decreased from 71 in 1999 to 64 in 2000, but they increased again to 106 in 2001. Data from 2002 show 94 opiate-related deaths.

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

Marijuana indicators are currently mixed.

From 1996 to 2000, the rate per 100,000 population of marijuana ED mentions increased more than 2½ fold from 19 to 51. The 2001 rate remained stable at 50 per 100,000 population. However, in 2002, the 38 marijuana mentions per 100,000 represented a substantial, but not statistically significant, decrease from the prior year. Marijuana hospital discharge occurrences per 100,000 population (exhibit 1) rose dramatically from 54.4 in 1997 to 71.1 in 2003.

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, but they climbed to 95 in 2003.

The proportion of marijuana treatment admissions increased from 37.9 percent in 1997 to 43.7 percent in 1999 (exhibit 2). However, since that time, they declined to 40.6 percent in 2001, 36.4 percent in 2002, and to only 31.7 percent in 2003. During the period described above, marijuana users have accounted for the largest proportion of all Colorado drug treatment clients.

The proportion of new users entering treatment for marijuana declined steadily from 1997 (37.4 percent) through 1999 (27.8 percent) (exhibit 3). However, this proportion climbed somewhat to 33.2 percent in 2000, remained at about that level (32.9 percent) in 2001, dropped slightly to 29.6 percent in 2002, but rose back to 32.9 percent in 2003.

Data indicate only slight changes in the demographics of marijuana treatment clients. Race proportions remained relatively stable from 1997 through 2003. Hispanics increased as a percentage of marijuana admissions from 29.6 percent in 1997 to 36.7 percent in 1999, but they declined to only 27.5 percent through 2003. The proportion of Whites has fluctuated up and down only slightly from 1997 (57.5 percent) through 2003 (56.8 percent). African-Americans had constituted between 6.5 and 9.4 percent of marijuana admissions between 1997 and 2001, but that proportion rose

to 11.3 percent in 2003, their highest proportion during the 7-year period. Male-to-female marijuana admission ratios remained at approximately 3:1 from 1997 through 2003.

There have also been small changes in the marijuana age group proportions from 1997 through 2003. The proportion of those age 12 to 17 has shown peaks and valleys during this time period, declining from 45.3 percent in 1997 to 36.3 percent in 1999, increasing to 44.6 percent in 2001, dropping again to 39.5 percent in 2002, but climbing to 43.3 percent in 2003. The proportion of 18–25-year-olds showed smaller fluctuations during this period, but overall this age group increased slightly from 26 percent of admissions in 1997 to 28.2 percent in 2003. However, the 26–34 age group proportion remained relatively stable from 1997 (15.4 percent) through 2003 (15 percent). On the other hand, the 35-and-older age group proportion, which had increased from 12.9 percent in 1997 to 22.7 percent in 1999, dropped to 13.2 percent in 2003.

ADAM data indicated that 40 percent of the male arrestee sample and 33 percent of the female arrestee sample had positive marijuana urine screens in 2001. These percentages remained stable in 2002, with 40.3 percent of males and 32.6 percent of females testing positive, but they increased slightly in 2003, with 42.3 percent of males and 34.3 percent of females testing positive for marijuana.

The Denver DEA reports widespread availability of marijuana and says that the "most abundant supply is Mexican grown and is trafficked into and through the area from California, Texas, New Mexico, and Arizona by Mexican poly-drug trafficking organizations." 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.

Additionally, 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 methamphetamine and other stimulant use in Denver and across Colorado fluctuated from 1997 through 2003, most indicators have increased during the last few years.

The rate of methamphetamine ED mentions per 100,000 population in Denver increased from 7 in 1996 to 19 in 1997, but it then declined to only 5 in 2001 and remained at that level in 2002. Conversely, amphetamine ED mentions per 100,000 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 (exhibit 1) had shown a downward trend from 1997 (24.6) to 1999 (16.9). However, since 1999, the rate has more than doubled to 42.4 in 2003.

Amphetamine-related calls (street drug category) to the RMPDC had decreased from 1994 (36 calls) to 1996 (16 calls), but they 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. Also, in 2002 and 2003, amphetamine calls remained at a high level (247 and 239, respectively).

The proportion of methamphetamine treatment admissions had declined from 14.9 percent of drug admissions in 1997 to 10.7 percent in 1999 (exhibit 2). However, from that point, they rose to their highest level in 2003 (23.2 percent), and methamphetamine is now second only to marijuana as the primary drug reported by clients admitted to treatment. Other stimulant admissions typically represent only a fraction of those for methamphetamine. However, from 1997 to 2002, they nearly tripled from 100 (0.9 percent of admissions) to 276 (2.0 percent of admissions), and they declined only slightly to 224 admissions (1.6 percent) in 2003.

In 1997, 30.7 percent of primary methamphetamine users entering treatment were new users (exhibit 3). This percentage declined steadily to only 20.8 in

2002. However, in 2003, the proportion of new methamphetamine users climbed to 23.1 percent, or about the same as in 1999 (23.0 percent).

A comparison of 2002 "new" methamphetamine users (i.e., those 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 likely to be female (53.3 percent) than old users (44.6 percent) and less likely to be White/non-Hispanic (77 percent) than old users (83.2 percent). Also, somewhat expectedly, new users are more likely to be age 25 and younger (58.2 percent) than 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 for new users. Also, about the same proportion of old and new users (23 and 20 percent, respectively) reside in the Denver metropolitan area. Similarly, a like proportion of old and new users live on the "Western Slope" of Colorado (16 percent and 15 percent, respectively).

Injecting had been the most common route of administration for methamphetamine. However, the injection drug user (IDU) proportion declined from 1997 (32.6 percent) to 2003 (23.5 percent), while smoking has become increasingly common in the last 7 years. In 2003, nearly 61 percent of methamphetamine treatment admissions smoked the drug, compared with only 29.1 percent in 1997.

Methamphetamine treatment admissions for 2003 remained predominately White (82.4 percent), although the proportion of Hispanics increased among treatment admissions from 6.5 percent in 1997 to 12.7 percent in 2003. Females accounted for slightly less than one-half of methamphetamine admissions from 1997 (47.2 percent) to 2003 (49.5 percent). From 1997 to 2003, those age 25 and younger declined from about 41 percent of admissions to 37.8 percent, while those 26–34 remained at about one-third of admissions during the entire period. The 35-and-older group proportion has increased slightly from 25.3 to 28.7 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, and they stayed at about that level in 2002 (*N*=17). However, amphetamine death mentions increased only slightly from five in 1997 to eight in 2001. Though amphetamine-related deaths in Colorado are far fewer than those for opiates or cocaine, the number has increased sharply from only 20 between 1996 and 1999 to 37 between 2000 and 2003 (an 85-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. These figures increased slightly for males in 2002 (3.8 percent) and slightly more for females (6.6 percent). Again, only small changes were noted in 2003, with 4.7 percent of males and 5 percent of females testing positive.

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 464 in 2002. 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). The purity for methamphetamine ranges all the way from 1 to 82 percent and averages 26.2 percent in the Denver area. However, in western Colorado, methamphetamine purity ranges from 51 to 96 percent and averages 62.3 percent.

Methamphetamine street prices are $700 per ounce, $3,800 per one-quarter pound, and $5,000 per one-half pound in the Denver area and $1,200 to $1,250 per ounce and $18,000 per pound in western Colorado.

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,

program staff report 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" in comparison to 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 RMPDC). 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, or ecstasy, 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 in 1994–1999. RMPDC data on MDMA were not available in 2000 and 2001, but in 2002 and 2003, there were 42 and 27 MDMA calls, respectively. MDMA ED mentions, however, jumped from 6 in 1998 to 15 in 1999 to 57 in 2000, but they declined to 42 in 2001. Also, the 33 MDMA mentions in 2002 represent a statistically significant 21.4-percent decline from the prior year.

In 2003, 38 clients were admitted to treatment with MDMA as their primary drug of abuse. Twenty-eight of the MDMA admissions were male and 10 were female. Twenty-four of these clients were White (non-Hispanic), while seven were Hispanic. Nine of the clients were age 12–17, 15 were 18–25, 4 were 26–34, and 10 were 35 and older. Interestingly, 24 of the MDMA users took it orally, while 11 were smokers, 1 inhaled, and 1 injected. Of the 25 MDMA users who used a secondary drug, 9 used marijuana, 5 used alcohol, 4 used cocaine, 4 used methamphetamine, and 3 used other drugs.

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

GHB is a central nervous system depressant that can sedate the body, and at higher doses it can slow breathing and heart rate dangerously. It can be produced in clear liquid, white powder, tablet, and capsule forms, and it is often used in combination with alcohol, making it even more dangerous. During the 1994 to 1998 period, the RMPDC reported only one to six calls about GHB. However, in 1999 the number of GHB calls jumped to 92. RMPDC data for GHB were not available in 2000, but in 2001, 2002, and 2003, there were 21, 22, and 6 GHB calls, respectively. GHB ED mentions 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).

In 2003, five clients were admitted to treatment who claimed GHB as their primary drug of abuse. Four were female, two were White, and one each was Black, Native American, and Asian. Curiously, three of the five were 35 and older. Four had taken the drug orally, while one reported smoking the drug.

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 bottlecap 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, and 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. However, such calls declined to only seven in 1999, and there were no Rohypnol calls in 2000–2003. Also, there were only two ED mentions from 1994 through 2002.

In 2003, 15 clients were admitted to treatment claiming Rohypnol as their primary drug of abuse. Thirteen were male and only two were female. Ten were White and five were Hispanic. Also, 10 were age 35 and older. Eleven had taken the drug orally, while two reported smoking, and two said they had injected

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. However, 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 2003. There were only 3 ketamine ED mentions from 1994 to 1999, but there were 12 and 11 such mentions in 2000 and 2001, respectively. However, there were no ketamine mentions in 2002.

In 2003, seven clients were admitted to treatment who reported ketamine as their primary drug of abuse. Six were White, one was Hispanic, six were male, and five were younger than 35.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Of the 7,998 acquired immunodeficiency syndrome (AIDS) cases reported in Colorado through December 31, 2003, 9.3 percent were classified as IDUs, and 11.0 percent were classified as homosexual or bisexual males and IDUs (exhibit 4).

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Exhibit 1. Numbers and Rates Per 100,000 Population of Hospital Discharge Mentions in Colorado for Selected Drugs: 1997–2003

Drug	1997	1998	1999	2000	2001	2002	2003
Cocaine							
Number	2,245	2,492	2,517	2,732	2,787	3,305	3,588
Rate	57.7	62.8	62.3	63.2	63.2	73.6	77.9
Narcotic Analgesics							
Number	1,458	1,566	1,639	2,053	2,237	2,605	3,137
Rate	37.5	39.5	40.6	47.5	50.8	58.0	68.7
Marijuana							
Number	2,118	2,227	2,204	2,455	2,755	3,016	3,246
Rate	54.4	56.1	54.6	56.8	62.5	67.2	71.1
Amphetamines							
Number	959	815	682	942	1,161	1,463	1,936
Rate	24.6	20.5	16.9	21.8	26.3	32.6	42.4
Population	3,892,996	3,996,198	4,039,402	4,324,920	4,407,305	4,487,727	4,567,642

SOURCE: CHA and CDPHE

Exhibit 2. Treatment Admissions in Colorado by Drug: 1997–2003

Drug	1997	1998	1999	2000	2001	2002	2003
Cocaine							
Number	3,182	3,798	3,432	2,768	2,722	3,013	3,012
Percent	27.1	26.6	23.7	21.1	20.7	21.8	21.9
Heroin							
Number	1,613	1,894	2,086	1,896	1,841	1,701	1,786
Percent	13.7	13.2	14.4	14.5	14.0	12.3	13.0
Non-Prescription Methadone							
Number	16	30	31	25	28	34	23
Percent	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Other Opiates							
Number	254	331	392	421	500	496	573
Percent	2.2	2.3	2.7	3.2	3.8	3.6	4.2
Marijuana							
Number	4459	5686	6339	5571	5357	5022	4362
Percent	37.9	39.8	43.7	42.5	40.6	36.4	31.7
Methamphetamine							
Number	1748	1931	1554	1710	2058	2555	3189
Percent	14.9	13.5	10.7	13.0	15.6	18.5	23.2
Other Stimulants							
Number	100	97	153	202	158	276	224
Percent	0.9	0.7	1.1	1.5	1.2	2.0	1.6
Barbiturates							
Number	17	23	21	9	9	46	63
Percent	0.1	0.2	0.1	0.1	0.1	0.3	0.5
Sedatives							
Number	24	29	26	38	22	270	156
Percent	0.2	0.2	0.2	0.3	0.2	1.9	1.1
Tranquilizers							
Number	88	97	130	79	78	89	103
Percent	0.8	0.7	0.9	0.6	0.6	0.7	0.7
Hallucinogens							
Number	75	99	108	108	97	51	26
Percent	0.7	0.7	0.7	0.8	0.7	0.4	0.2
PCP							
Number	2	2	8	9	6	6	12
Percent	0.0	0.0	0.1	0.1	0.1	0.0	0.1
Club Drugs							
Number	N/A	N/A	N/A	N/A	N/A	32[1]	62[2]
Percent						0.3	0.5
Inhalants							
Number	100	117	71	67	72	44	58
Percent	0.9	0.8	0.5	0.5	0.6	0.3	0.4
Other							
Number	79	167	160	206	235	168	106
Percent	0.7	1.2	1.1	1.6	1.8	1.2	0.8
Total (*N*)	**11,757**	**14,301**	**14,511**	**13,109**	**13,183**	**13,803**	**13,755**

[1]Includes MDMA (11), GHB (9), ketamine (3), and Rohypnol (9). Collection of treatment data for club drugs began in July 2002.
[2]Includes MDMA (15), GHB (1), ketamine (2), and Rohypnol (7).

SOURCE: DACODS

Exhibit 3. Annual Percentages of Cocaine, Heroin, Marijuana, and Methamphetamine Users Entering Treatment Within 3 Years of Initial Use: 1997–2003

Drug	1997	1998	1999	2000	2001	2002	2003
Cocaine							
Number	409	519	448	448	411	433	472
Percent	13.8	14.6	14.2	17.0	15.7	14.9	16.5
Heroin							
Number	250	327	359	374	322	292	271
Percent	16.5	18.6	18.3	20.3	18.0	17.6	15.5
Marijuana							
Number	1,549	1,685	1,612	1,752	1,715	1,434	1,386
Percent	37.4	32.5	27.8	33.2	32.9	29.6	32.9
Methamphetamine							
Number	487	529	343	368	425	511	701
Percent	30.7	29.0	23.0	22.3	21.1	20.8	23.1

SOURCE: DACODS

Exhibit 4. Colorado Cumulative AIDS Cases by Exposure Category Through December 31, 2003

Item	Number	Percent
Number of Confirmed Cases	7,998	100
Gender		
Male	7,382	92.3
Female	616	7.7
Exposure Category		
Men who have sex with men (MSM)	5,393	67.4
Injection drug user (IDU)	740	9.3
MSM and IDU	882	11.0
Heterosexual contact	468	5.9
Other	186	2.3
Risk not identified	329	4.1

SOURCE: Colorado Department of Public Health and Environment

Drug Abuse Trends in Detroit/Wayne County and Michigan

Philip Chvojka and Richard Calkins[1]

ABSTRACT

Cocaine indicators continued to stabilize, with small declines in deaths and ED mentions. Heroin treatment admissions, especially as the primary substance of abuse, increased as reported total treatment admissions increased, while heroin-involved deaths began to decline after reaching a peak in 2002. Data on other opiates showed increases in hydrocodone use. Marijuana continued to be the top illicit drug, with indicators remaining stable or increasing slightly. Indicators for methamphetamine, especially outside the metropolitan Detroit area in more rural settings, showed continuing increases. Indicators for abuse of LSD, GHB, ecstasy, ketamine, and Coricidin HBP showed recent 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 that opened 2002; 10 other large airports that also have international flights; and 235 public and private small airports. Long-term projections for the Detroit 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 and 2004 to date.

Data Sources

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

[1]The authors are affiliated with the Office of Drug Control Policy, Michigan Department of Community Health, Lansing, Michigan.

- **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) through 2002. Although there are no new ED data available, this report will reflect those findings noted in the most recent prior report (December 2003), especially when DAWN is the only indicator source for a particular drug or group of drugs.

- **Treatment admissions data** were provided by the Bureau of Substance Abuse and Addiction Services, Division of Substance Abuse and Gambling Services, Michigan Department of Community Health (MDCH), for the State and Detroit/Wayne County, as reported by State and federally funded programs. FY 2004 data are not yet available. MDCH, following revised Treatment Episode Data Set (TEDS) Federal guidelines, is converting to an episode-based reporting system in which changes in levels of care that are part of the treatment plan (moving from residential treatment to outpatient, for example) are not reported as new separate admissions but rather as transfers within an episode. This transition has not been fully implemented by all publicly funded programs. As this change is fully implemented, it is expected that total admissions will decline, and comparisons of admissions trends before and after this change are not recommended. In contrast to including previously reported ED data in this report, discussions included regarding to treatment data in this report will be limited to instances where treatment is the only indicator source for a particular drug or group of drugs.

- **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 February 2004. 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). Data on heroin purity from 2003 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 southeast Michigan) now cooperate in HIDTA-SEM.

- **Poison control case data** that represent contact data on cases of intentional abuse of substances from January through mid-May 2004 were provided by the Children's Hospital of Michigan Poison Control Center in Detroit. This center is one of two in Michigan; its catchment area is primarily southeastern Michigan, although contacts can originate anywhere. Some statewide poison control data (from both regional centers) have recently become available.

- **Drug-related infectious disease data** were provided by the MDCH on the acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) prevalence estimates as of April 1, 2004.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/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 persons 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 made by those in younger age groups, but the decreases were not significant.

The numbers of decedents with a positive drug toxicology for cocaine in Detroit/Wayne County were basically stable between 1995 and 1999, with plus or minus 1–12-percent 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 379 cocaine-present deaths

in 2003, a 9-percent decrease from 2002, may suggest a slightly decreasing pattern is developing.

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 over the past decade. There are some reports of decreases in prices at the kilogram quantity level and above. The cost of crack rocks now ranges from $5 to $25, with $10 being 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 ($850–$1,200) since 2001 in Detroit. Small plastic bags (heat-sealed or zip-lock), aluminum foil, and no packaging at all remain the most common conveyances.

An emerged population of crack users is reported to involve Native Americans living around northern Michigan casinos. These users are reported to be supplied primarily from Detroit-area distribution channels and typically pay as much as $100 per rock, a 900-percent price increase over what it would sell for inside Detroit. The drug has already been converted into rocks when it is transported to northern Michigan casino regions.

Heroin

ED mentions for heroin have trended gradually upward since 1994; they stabilized 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 between the ages of 18 and 25 (+108.8 percent), and those admitted to the hospital (+76.1 percent).

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. In 2003, the Wayne County ME identified 446 heroin deaths, a level slightly below the 2001 findings. In first 2 months of 2004, the ME identified 64 heroin-involved deaths. This may indicate that, similar to cocaine, a decreasing pattern is developing

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 2003, this same 6-AM/morphine ratio returned to the earlier pattern at 52 percent.

Nearly all heroin continues 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–$20. 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 primarily lottery papers. 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.

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 47.3 percent in the most recent sample of 33 controlled heroin buys in 2003. This is another decrease from the prior year, while price (when adjusted for purity) remained stable.

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 evi-

dent 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 use of hydrocodone combinations (typically Vicodin, Lortab, or Lorcet) 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.

Toxicology findings from the Wayne County ME lab showed 241 cases of codeine positivity in 2002 and a relatively equal number of cases (232) in 2003.

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 (*n*=129) and 2002 (654) and between 2000 (371) and 2002. Hydrocodone was identified by the Wayne County ME lab in 60 decedents in 2000, 80 in 2001, 120 in 2002, and in 108 cases in 2003. Information from the Children's Hospital of Michigan Poison Control Center (covering primarily southeast lower Michigan) on intentional hydrocodone abuse cases for 2001 identified about 40 cases; about one-half were female. In 2003, 186 cases of intentional exposure to hydrocodone were reported to the Detroit-area poison control center, which is more than three times as many cases as in 2002. For the first 4 months of 2004, 54 intentional exposures to hydrocodone were reported to the statewide poison control network.

The most recent southeast Michigan ED drug mentions data from DAWN reflected 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 common for persons in emergency departments to ask specifically for this drug for various ailments. There are continued reports of household breakins (especially of cancer patients), and armed robberies specifically related to this drug continued to be reported. However, some of these incidents may be declining. Some pharmacies have posted signs they no longer carry OxyContin. Oxycodone was found in 10 decedents in Wayne County in 2000, 13 in 2001, 12 in 2002, and 19 in 2003. It was involved in 15 cases reported to the 2 statewide poison control centers through the first 4 months of 2004. OxyContin pills still sell for $0.50–$1.50 per milligram. Reports continue of oxycodone being smuggled from Canada.

Marijuana

Marijuana indicators remain mostly stable but at highly 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 multidrug 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.

The majority of marijuana seized in Michigan originates in Mexico and is transported in both large and small quantities by a variety of methods. Shipments of marijuana have been discovered in furniture and auto parts semi-trucks. Law enforcement agencies continue to report seizures of 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 is often sold in the United States as "BC bud." There are unsubstantiated 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. Improved training of personnel at the border has allowed better detection of the hockey goalie duffel bags full of Ontario Hydro hidden among the trash that is transported daily into Michigan as part of an international waste management contract. Enforcement sources reported both more and larger seizures in 2003, 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 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, when 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.

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 6 cases in 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, Michigan State Police seized 91 labs, 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. During 2003, Michigan State Police seized 186 methamphetamine labs, and they note that an additional number were seized by other law enforcement agencies. The State Police also reported that there were 202 methamphetamine-related complaints in 2002, compared to 373 such complaints in 2003 (these include dumpsites and component cases). Through mid-May, 2004, there have been 51 labs seized. 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, with the methamphetamine produced typically used for self-consumption or for friends. Some larger production capacity labs were seized in 2003, however.

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 Detroit-area poison control center during the first 9 months of 2002, 24 cases in the first 10 months of 2003, and 18 cases statewide in the first 4 months of 2004.

The two Michigan Poison Control Centers reported 75 intentional benzodiazepine exposures statewide in the first 4 months of 2004, with 2 deaths resulting. Of these 75 exposures, 17 were for youths age 6 to 19.

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 low and relatively steady (exhibit 1).

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. In the first 4 months of 2004, two cases were reported that involved 2C-B (4-bromo-2,5-dimethoxyphenethylamine).

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.

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.

The Children's Hospital of Michigan Poison Control Center (Detroit area) 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. There were 26 cases statewide involving intentional abuse of ecstasy reported by both Michigan poison control centers in the first 4 months of 2004.

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. Three MDMA/MDA ME cases were reported in 2003.

Since 1998, there have been several indicators of increasing ketamine use, although more recently some stability is reflected in available indicators. Breakins to veterinary clinics have continued (but these have been declining steadily as building security has been enhanced) in efforts to obtain this drug. The Children's Hospital of Michigan Poison Control Center (Detroit area) 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 Detroit-area 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 and two cases were reported statewide in the first 4 months of 2004. 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 continue 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.

The two Michigan Poison Control Centers reported five cases statewide of intentional exposure to nitrous

oxide in the first 4 months of 2004, four of these were for persons younger than 20.

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 Detroit-area poison control center. In the first 10 months of 2003, 63 cases of intentional Coricidin abuse were reported. Persons younger than 20 reported nearly all exposures, and cases were split evenly between males and females. In the first 4 months of 2004, the two Michigan Poison Control Centers reported a statewide total of 46 intentional use cases involving Coricidin.

Abuse of cough syrup (also containing dextromethorphan) continued to be noted, with shoplifting being a common way of obtaining the substance. The two poison control centers reported a statewide total of 96 instances of intentional abuse of dextromethorphan, with 64 of these exposures involving persons younger than 20.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

HIV/AIDS

Michigan continues to rank 17th among all States, with an AIDS case rate of 133.3 per 100,000 population. As of April 1, 2004, a cumulative total of 13,415 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 8,727 male cases currently living with AIDS or HIV, 12 percent are IDUs and 7 percent are in the dual risk group.

Among the 2,564 females living with AIDS or HIV, 26 percent are IDUs, 43 percent were infected through heterosexual contact, and 27 percent have undetermined risk factors.

Statewide, HIV prevalence was most recently estimated at a maximum of 2,420 IDUs (a 16-percent decrease) and 830 IDUs who also engage in male-to-male sex (a 15-percent decrease). The total HIV prevalence estimate for Michigan increased by just under 5 percent to 16,200 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.

For inquiries concerning this report, please contact Phil Chvojka, Michigan Department of Community Health, Office of Drug Control Policy, Lewis Cass Building, 5th Floor, 320 South Walnut Street, Lansing, Michigan 48913-2014, Phone: (517) 335-0173, Fax: (517) 373-2963, E-mail: <chvojkap@michigan.gov>.

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	2,160	2,390	3,188	3,028	2,879	2,653	3,328	3,870[1]	3,881[1]
PCP/PCP Combinations	26	56	21	19	20	24	21	38	30
LSD	99	143	57	74	27	63	…	15	---[2]
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	...[3]	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

[1]Heroin excludes a small, but unknown, number of morphine/combinations mentions, which have been moved to the narcotic analgesics category during this time period.
[2]Dashes indicate that an estimate has been suppressed due to incomplete data.
[3]Dots (…) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.

SOURCE: Adapted from DAWN, OAS, SAMHSA

Exhibit 2. Detroit/Wayne County Positive Drug Toxicology Cases Involving Heroin or Cocaine Independent of Cause of Death: 1995–February 2004

Month		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	Heroin	16	21	17	21	23	43	52	29	26	35
	Cocaine	31	36	29	32	21	39	50	25	25	22
February	Heroin	14	16	27	26	31	37	40	35	47	29
	Cocaine	23	29	33	27	20	27	36	28	38	24
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	43	
	Cocaine	16	25	22	37	21	24	24	38	27	
October	Heroin	16	29	27	27	37	39	47	42	30	
	Cocaine	29	34	32	33	35	26	42	44	23	
November	Heroin	21	20	27	32	41	40	23	35	29	
	Cocaine	29	28	28	32	32	35	22	26	26	
December	Heroin	19	33	24	35	23	38	27	38	35	
	Cocaine	28	37	36	35	25	33	26	43	37	
Total	**Heroin**	**203**	**240**	**287**	**309**	**383**	**473**	**465**	**496**	**446**	
	Cocaine	**317**	**349**	**344**	**385**	**342**	**396**	**406**	**417**	**379**	

SOURCE: Wayne County Office of the Medical Examiner Laboratory

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

D. William Wood, M.P.H., Ph.D.[1]

ABSTRACT

This period (fall 2003) saw a continued increase in methamphetamine admissions to treatment, with more than 3,000 admissions in 2003 listing 'ice' as their primary substance of abuse. These data were amplified by the medical examiner's report that this drug was the single most common toxicological finding in decedents in 2003, with 54 deaths related to it (the rate was 65.4 such deaths per 1,000,000 population). Police data show a large increase in cases (n=967) after somewhat of a lull, with numbers approaching the highest level of 984 cases in 1995. Forty-six percent of arrestees tested positive for methamphetamine in the ADAM project data. Minimal but increasing use of cocaine was found in the medical examiner and police data, but slight declines in treatment admissions were also found. Heroin data are also mixed, with a slight increase in deaths (from 14 in 2002 to 18 in 2003), declining numbers of treatment admissions, and a slight drop in police cases in 2003. Limited data for 'other opiates,' however, more than compensated for the mixed data for heroin, with 22 deaths, down from 37 the previous year (mostly with oxycodone in the toxicological screen); clear declines in opiate admissions to treatment; and few arrests with opiates other than heroin in the toxicological screen. Marijuana use remains high on all indicators for the State and the city and county of Honolulu and is a 'drug of choice' for many residents. A 'Lt. Governor's Drug Summit' was convened in the late fall, and a legislative package and appropriation request are expected to be presented by the administration in the January 2004 session of the State legislature.

INTRODUCTION

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

Area Description

Hawai'i, the Aloha State, has an estimated 1.3 million residents. In the final 6 months of 2003, a sense of optimism abounded throughout the State. Visitor arrivals were returning to rates near those before the September 11, 2001, terrorist attacks; the time visitors were spending on the islands and the amount of money they spent daily had increased. There was the visible presence of new construction throughout the State and a lower unemployment rate than most other States. Yet, there was a sense that all was not well. The increased revenue was unable to generate increased tax revenue for the State, making discussion about supplementary allocations for the State's biennium budget more difficult. The Iraq war continued, with rotations of even more Hawaiian troops, including the National Guard and reserves.

The beneficiaries of the mini-economic boom did not appear to be the residents of the State. Large construction contracts for military housing were let to mainland firms, the cost of living increases outpaced wages of local residents, and the strong union presence in the State seemed unable to secure wage increases necessary for residents to feel they were benefiting from the increase in economic activity.

Military deployment in the State is devastating. With it goes the discretionary spending the military exerts in the community. With deployment, dependents often opt for a return to the more familiar mainland. Experience from the first Gulf War did not show any association with drug abuse but did show that the localized economy, especially small businesses, suffered. About 10 percent of the State's population is military or military dependents. Businesses depend heavily on the 125,000 military and their dependents for survival. Civilian employees of the military also suffer because their numbers are reduced when the military (a total of nearly 10 percent of the population) is deployed.

Added to the impact on the economy are transportation fuel surcharges. Gasoline prices are at $2.47 per gallon for regular grade; airlines are adding $60 per leg to and from the State; and shipping lines are adding a similar temporary surcharge. Such temporary charges in the past have never returned to pre-surcharge levels. Housing prices have escalated dramatically, with a single 1,200 square foot dwelling on an 8,000 square foot lot selling for a median price of more than $450,000. All these factors add to the already high cost of living in Hawai'i. It is now

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estimated that present prices are nearly one-third higher than on the mainland.

Data Sources

Much of the data presented in this report are from the Honolulu CEWG, which met on April 30, 2004. The meeting was hosted by the Hawai'i High Intensity Drug Trafficking Area program office, whose staff facilitated the attendance of the Drug Enforcement Administration representatives, as well as persons knowledgeable about drug data from Honolulu and neighbor islands. The State of Hawai'i Narcotics Enforcement Division, although invited, did not participate in the CEWG meeting. Neighbor island police, as well as the Honolulu Police Department, submitted data, but they were not able to attend the CEWG meeting because of prior training commitments at the State level. Neighbor island data, however, are only for Kona, since problems with the Maui and Kauai narcotics-vice information systems have not been resolved. For these reasons, this report is focused primarily on drug activities in O'ahu from July 1 to December 31, 2003, but covers all of 2003. Other specific data sources are listed below:

- **Treatment admissions and demographic data** were provided by the Hawai'i 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 the 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 was covered by State health insurance agencies or by private insurance. The rate of uninsurance for the State is about 10 percent.

- **Drug-related death data** were provided by the Honolulu City and County Medical Examiner (ME) Office. These data are based on toxicology screens performed by the ME Office on bodies brought to them for examination. The sorts of circumstances that would lead to the body being examined by the ME include unattended deaths, deaths by suspicious cause, and clear drug-related deaths. In short, while the ME data are consistent, they are not comprehensive and account for only about one-third of all deaths on O'ahu. To allow a direct comparison between ME data and treatment data, the ME data on the exhibits have been multiplied by 10.

- **Law enforcement case data** were received from the Honolulu and Kona Police Departments.

- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program of the National Institute of Justice (NIJ). The ADAM program has reported its data regularly to the CEWG, but NIJ closed the ADAM program effective December 2003. Thus, the current data are all that will exist for this sentinel data source. The ADAM project collected its data at the Central Receiving Unit of the Honolulu Police Department. Data on the urine testing component, as well as the questionnaire findings, were presented.

- **Drug price data** were provided by the Honolulu Police Department (HPD), Narcotics/Vice Division, for 2003.

Emergency department (ED) drug mentions data have not been available in Hawai'i since 1994. Discussions with the Healthcare Association of Hawai'i regarding inclusion in the Drug Abuse Warning Network (DAWN) program have resulted in a briefing of all hospital CEOs and the sharing of DAWN information. 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 months.

DRUG ABUSE PATTERNS AND TRENDS

Hawaiians and Whites remain the majority user groups within the 17 identified ethnic groups (plus 2 other categories: "other" and "unknown / blank") who access ADAD facilities for substance abuse treatment. During July through December 2003, 42.4 percent and 21.0 percent of the admissions were Hawaiians/Part Hawaiians or Whites, respectively. All other groups represented significantly lower proportions of admissions.

Methamphetamine remains the leading primary substance of abuse for those admitted to treatment, accounting for 44 percent of admissions. Marijuana usually was ranked as the third most frequently reported primary substance for treatment admissions, but it has now moved to second (22.0 percent) on the list of 21 drug categories. Alcohol as the primary substance of abuse now ranks as the third (21.9 percent) most common treatment admission group. It is important to point out, however, that almost all polydrug treatment admissions list alcohol as a

substance of abuse. The 25–44 age group had the highest representation among treatment admissions, with 26.0 percent of admissions being age 25–34 and 35–44-year-olds accounting for 24.3 percent. While marijuana abuse accounts for the majority of treatment admissions among those younger than 18, the abuse of ice or crystal methamphetamine still looms as a major treatment category for this group.

During this reporting period, drug prices have been stable, except for some minor upward price adjustments for crystal methamphetamine in smaller amounts (exhibit 1). 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.

Ice continues to dominate the Hawaiian drug market. Prices have 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 is that of clandestine labs, almost exclusively reprocessing labs that continue to be closed at a regular pace.

Marijuana remains a drug for which arrest results from circumstance, bad luck, or stupidity. The Big Island Police Department continues "Operation Green Harvest" in collaboration with Federal agencies. More than 100,000 plants are seized per half-year by the Hilo (east) side of the island and about an additional 30,000 plants are seized on the Kona (west) side of the island. Officials in Maui seize approximately 14,000 plants per half-year. Efforts in O'ahu during the 2003 reporting period resulted in seizures of only 8,472 plants and 45,074 grams of dried marijuana, compared with 41,966 plants and 52,269 grams seized in 2002.

The Hawai'i DEA continues its efforts with the Honolulu Police Department to deal with crystal methamphetamine and, in particular, to break the supply route from California for the chemicals necessary to operate Hawai'i's ice labs. During this period, the HPD seized and closed 10 clandestine methamphetamine laboratories and seized 69,133 grams of ice but no powdered or liquid methamphetamine.

In this paper, the police data exhibits show all neighbor island data combined and titled "neighbor island." As noted earlier, these data could not be uniformly updated for this report, and therefore they are not considered reliable. The Honolulu data represent reports from the HPD.

Cocaine/Crack

Powder cocaine and crack treatment admissions declined somewhat during the current period. There were 355 primary cocaine treatment admissions in 2003, compared with 428 in 2002 and 433 in 2001 (exhibit 2). This shows that clients listing cocaine as the primary drug, after being quite stable for several years, began a decline in 1999 that continues into 2003. Powder cocaine/crack now ranks fourth among primary drugs of treatment admissions, after methamphetamine, alcohol, and marijuana.

While cocaine treatment admissions declined recently, the Honolulu ME reported 26 deaths with cocaine-positive toxicology screens in 2003, an increase from 22–24 such deaths in the previous 4 years (exhibit 2). The total of 26 deaths in 2003 is the highest since 1998. It should be remembered that data on the chart have been adjusted to allow for their presentation on the same axes by multiplying all death data by a constant of 10.

According to the HPD, cocaine prices have remained relatively stable over the past several years. A quarter gram of crack currently sells for $25–$30, and the same amount of cocaine powder costs $25–$35 (exhibit 1). Police cases have increased slightly during this period. Over the past 6 years, the number of HPD cocaine cases plummeted from more than 1,200 cases in 1996 to 202 in 2003 (exhibit 3).

Heroin and Other Opiates

In 2003, the HPD seized a total of 0.019 grams of powder heroin. Black tar heroin monopolizes the heroin market of Hawai'i, and it is readily available in all areas of the State. China white heroin has been uncommon in Hawai'i for several years, but it is occasionally available for a premium price. HPD data show 3,502 grams of China white were seized in 2003. For 2002, 992 grams of black tar and 494 grams of powder were seized. In 2001, 530 grams of powder were seized, along with 3,258 grams of black tar heroin. According to the HPD, heroin prices remain stable in Honolulu, costing $50 per one-quarter gram, $200–$300 per gram, and $2,500–$3,500 per ounce (exhibit 1).

Heroin treatment admissions continued the decline begun in 1998 (exhibit 4). In 1998, record levels of treatment admissions were recorded, with more than 500 individual admissions that year. Heroin ranked fifth among treatment admissions, at 2.8 percent of all admissions in 2003 (n=201).

The Honolulu ME reported that deaths in which opiates were detected had stabilized from the previous years, but for heroin specifically, they increased to 18 (exhibit 4). Decedents with a positive toxicological result for opiates were primarily comprised of those in whom oxycodone was detected. The exact medication (OxyContin® or another) used was not specified.

The HPD reported 25 heroin cases in 2001, 44 in 2002, and 30 in 2003 (exhibit 5). No specific explanation of either the "spike" or "trough" in the data was provided.

Marijuana

Statewide, marijuana treatment admissions increased in 2003 after a slight decline in 2002 (exhibit 6). In 2003, there were 1,593 marijuana admissions to treatment, mainly younger persons who were often referred by the courts. In examining these treatment data, it is important to remember that the number of persons in treatment for marijuana use is triple the number in treatment 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.

Between 1994 and 1999, the O'ahu ME reported 12–21 deaths per year in which marijuana was found in the specimens submitted for toxicology screening (exhibit 6). Those numbers increased to 25 in 2000, 36 in 2001, 30 in 2002, and 32 in 2003.

The HPD continues to monitor, but to not specifically report, case data for marijuana. As mentioned in previous CEWG 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 O'ahu for sale (exhibit 7).

As shown in exhibit 1, marijuana cost $5–$20 per joint, $25 per gram, and $6,000–$9,000 per pound in 2003.

Methamphetamine

It is with little pride that Honolulu and the State of Hawai'i retain the title as the crystal methamphetamine capital of the United States. Methamphetamine remains the drug of choice in the island chain. California-based Mexican sources use Hawai'i's cultural diversity to facilitate smuggling and distribution to and within the islands. Analysis of confiscated methamphetamine reveals that the product is still a high-quality *d*-methamphetamine hydrochloride in the 90–100-percent purity range.

Methamphetamine treatment admissions remained extremely high and rose yet again in 2003 to 3,182 (from 2,677 in 2002) (exhibit 8). This represents 44 percent of all admissions in 2003. An examination of exhibit 8 shows the trend over the past 13 years. The rate of increase in demand for treatment space for methamphetamine abusers has been nearly 2000 percent since 1991. 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 nonjudicial treatment are extremely tight.

Between 1994 and 2000, the O'ahu ME mentioned crystal methamphetamine in 24–38 cases per year (exhibit 8). In 2001, that number jumped to 54, and methamphetamine-positive decedents increased to 62 in 2002. In 2003, the number of decedents with ice found in their toxicologies was 56. For the 850,000 residents of the island of O'ahu, this represents 65.4 deaths per million population.

Crystal methamphetamine prices remained stable in 2003. The drug is sold in the islands as "clear" (a clear, white form) or "wash" (a brownish, less processed form). Prices for ice vary widely according to these two categories and availability, as illustrated by prices on O'ahu: $50 (wash) or $75 (clear) per 0.25 gram; $200–$300 (wash) or $600–$900 (clear) per gram; $450–$600 (wash) or $1,000–$2,000 (clear) per one-quarter ounce; $2,200–$3,000 (wash) per ounce.

HPD methamphetamine case data peaked at 984 in 1995 (exhibit 9). The annual number of cases subsequently declined annually, and they totaled 616 in 2002. During 2003, however, 967 cases were reported. Minimal data are available from the neighbor islands, but they also show an increase in cases.

The final piece of information on Hawai'i's leading drug is from the ADAM site. Weighted data on adult male arrestees for 2001, 2002, and 2003 show that the drug most frequently found in the urines of these arrestees was amphetamines, almost entirely methamphetamine (exhibit 10). The weighted 2003 data show that 46.3 percent tested positive for amphetamines/methamphetamine in the first quarter, 38.0 percent were positive in the second quarter, and 46.0 percent were positive for amphetamines in the third quarter.

Depressants

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

ADAD maintains three categories under this 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 total less than 10

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

The HPD have not reported depressant case data since 1991. Neighbor island police reported 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

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

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

No hallucinogen case data were generated for 2002.

HAWAI'I STATE SYRINGE EXCHANGE PROGRAM

The Hawai'i State Syringe Exchange Program was the first legal needle exchange program in the United States. It was started by the State Department of Health, with Federal Government funding, in 1989. After 2 years of operation and initial evaluation, the Hawai'i State legislature legally sanctioned the program with the passage of Act 280 in 1990. The coordinating agency for the program is the Community Health Outreach Work project (CHOW). The focus of this effort is the reduction of risk for the human immunodeficiency virus (HIV), hepatitis B (HBV), hepatitis C (HCV), and other blood-borne pathogens. The secondary goal of the project is to refer clients to other health and social service agencies for appropriate health, rehabilitation, and care needs. A continual evaluation of the program has existed since its inception, with annual reports being generated. Highlights from the 2003 Evaluation of the Hawai'i State Syringe Exchange Program are presented below.

The Clients

The average age of clients of this program increased from 38.5 in 1995 to 43.9 in 2003. The average length of time clients had been injecting drugs in 2003 was 21 years. Males accounted for more than two-thirds of the clients (72.7 percent). During 2003, unlike previous years, no clients listed their gender as "Transgendered."

The ethnicity of users of the program was distributed as follows:

- Caucasian—51.3 percent
- Part-Hawaiian—15.3 percent
- Asian—13.3 percent
- Hispanic—6.7 percent
- African-American—5.3 percent
- Filipino—4.7 percent
- Native American—3.3 percent

The ethnic group "Caucasian" accounted for more cases than all other ethnicities combined.

Clients were mostly in stable housing arrangements, with 54 percent owning or renting their residences. That proportion is up from 1999, when 42 percent of clients reported this status. However, the issue of housing remains a serious problem to all clients, since one-third are homeless.

The list below shows the employment status of the users in the program:

- Full-time—12.5 percent
- Part-time—18.7 percent
- Out-of-Work—36.0 percent
- Disabled—25.3 percent
- Homemaker—1.3 percent
- Student—0.0 percent
- Other—5.5 percent

The sources of income for users in the program are as follows:

- Food stamps—38.0 percent
- General assistance—19.3 percent
- Drug-related—36.7 percent
- Paid jobs/salary—42.0 percent
- Spouse, family—38.0 percent
- Sex for money/drugs—9.3 percent
- Disability (SSI, VA)—12.0 percent
- Boosting/stealing—14.7 percent
- Pawning/selling—39.3 percent

- Unemployment—3.0 percent
- Social Security—8.0 percent
- Other sources—4.7 percent
- Alimony/child support—0.0 percent

Multiple sources of income were allowed to be reported. State or Federal Government-based sources of income are by far the most common for this group. Few are employed, many are "Out-of-Work."

Drugs of Abuse

Injection drugs of choice for this group are as follows: heroin, 82.0 percent; other narcotics, 44.7 percent; uppers, 30.0 percent; speedballs, 16.0 percent; cocaine, 14.7 percent; other drugs, 6.7 percent; and downers, 0.0 percent. Clearly, multiple drugs are reported, but equally clear is that heroin and other narcotics represent the majority of drug choices for this group.

For those using drugs and injecting, on average they do so 5.6 times per week. On days that they use drugs, they inject an average of three times per day. Those who use injection drugs also use noninjection drugs. The following are the noninjection drugs of choice: marijuana, 43.3 percent; crack cocaine, 38.7 percent; alcohol, 34.7 percent; uppers, 33.3 percent; downers, 32.0 percent; other narcotics, 24.0 percent; heroin, 7.3 percent; powder cocaine, 3.3 percent; and hallucinogens, 2.7 percent.

Indicators

Injection drug use has many public health implications. Currently, 17 percent of AIDS cases are related to injection drug use. Of the 150 participants in the evaluation survey, 114 had been tested for HBV; of those tested, 69.3 percent were positive for the condition. For HCV, 113 of the 150 participants had been tested for the condition; 16 had not been tested, and 21 were uncertain as to whether they had been tested. Of those tested, 46 reported a negative result to the HCV testing. Almost all (146/150) evaluation participants had been tested for tuberculosis; of those tested, 136 tested negative.

The total number of visits and needles exchanged from 1995 through 2003 are shown in the table below.

Category	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total Visits	13,786	10,829	9,544	9,491	10,207	11,855	11,403	10,331	9,172
First Visits	348	89	97	132	61	81	103	171	179
Total Syringes	---	133,958	142,715	174,509	193,350	219,218	347,793	444,183	468,379
Program Syringes	---	126,267	136,281	165,013	185,501	211,571	N/A	N/A	N/A

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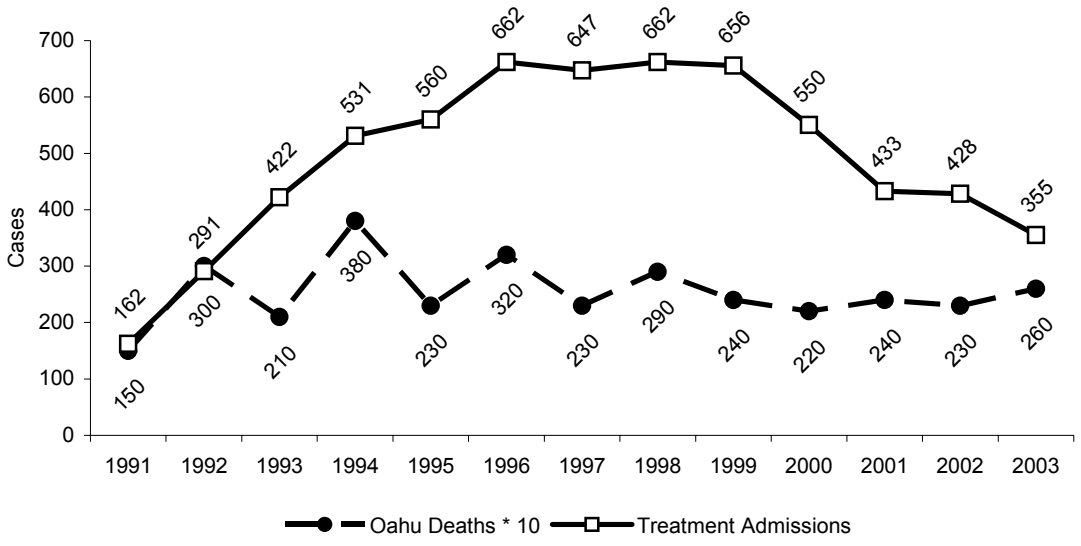
Exhibit 1. Drug Prices in Honolulu: 2003

Drug	Paper (1/4 Gram) Or Other Retail Unit	Gram	Quarter (1/4 Ounce)	"O" (1 Ounce)	"LBs" (1 Pound)	"Kilo" (1 Kilogram)
Heroin (White)	$50	$200–$300	$2,000–$3,000	$5,000	$50,000	$100,000
Heroin (Black Tar)	$50–$75	$150–$200	$750	$2,500–$3,000	N/A	N/A
Cocaine	$25–$35	$100–$120	$500–$600 $250–$350 (eightball)	$1,100–$1,500	$13,500–$25,000	$26,000–$52,000
Crack	$25–$30	$100–$250		$1,000–$1,500	$24,000	N/A
Crystal Methamphetamine	$50	$200–$300	$450–$600 (eightball)	$2,200–$3,000	$30,000	$50,000–$70,000
LSD	$4–6 per hit		$225–$275 per 100 hits			
Marijuana	$5–$20 per joint	$25	$100–$200 (eightball)	$400–$800	$6,000–$9,000	N/A
Hashish	N/A	$10	$40–$60	$150–$300		$1,400–$1,800
Dilaudids	$40–$80 per capsule					
MDMA	$20–$40 each					
Phencyclidine	$10–$20	$100	$350–$550	$900–$1,200	N/A	N/A

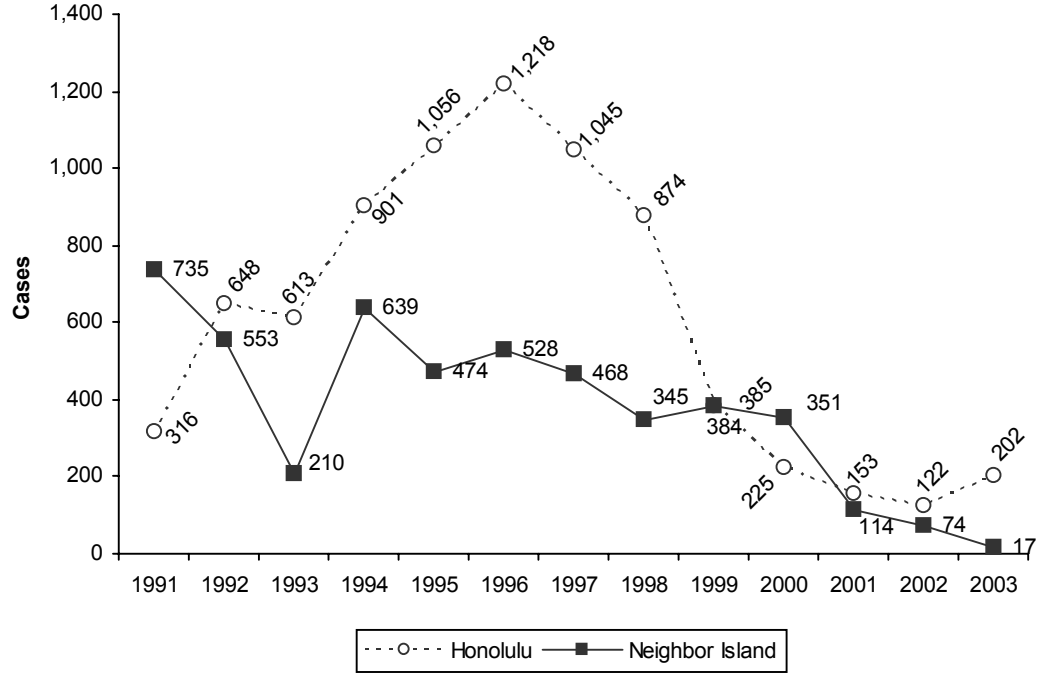
SOURCE: Honolulu Police Department

Exhibit 2. Cocaine Deaths[1] and Treatment Admissions: 1991–2003



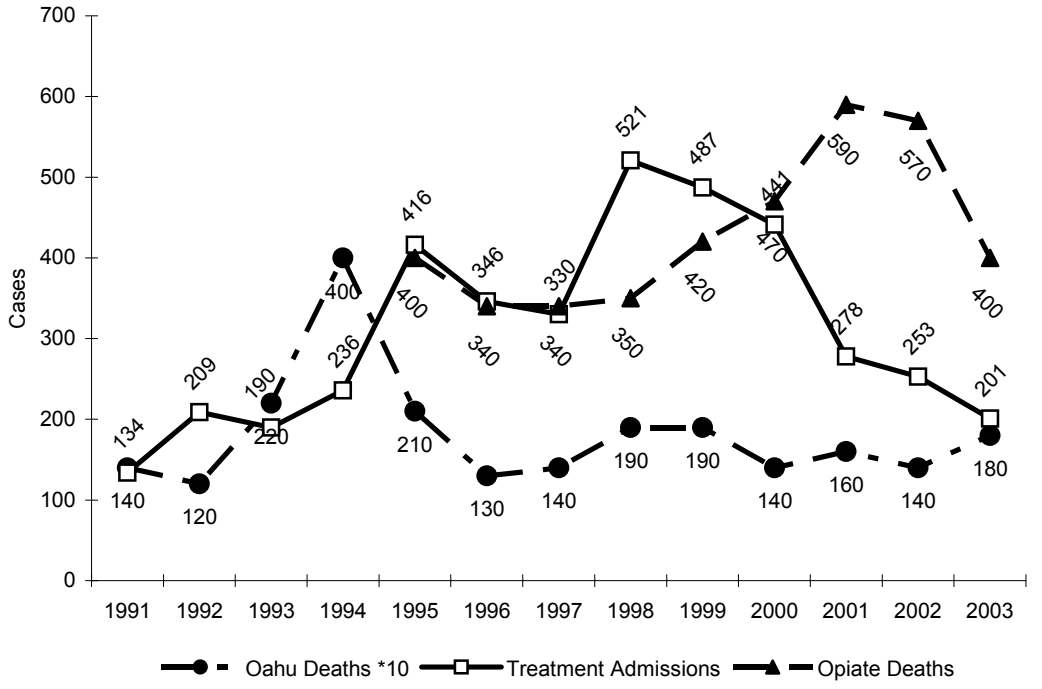
[1]To allow a direct comparison between ME data and treatment data, the ME data have been multiplied by 10.
SOURCES: Hawai'i State Department of Health, Alcohol and Drug Abuse Division; Honolulu City and County Medical Examiner Office

Exhibit 3. Cocaine Police Data in Hawai'i: 1991–2003



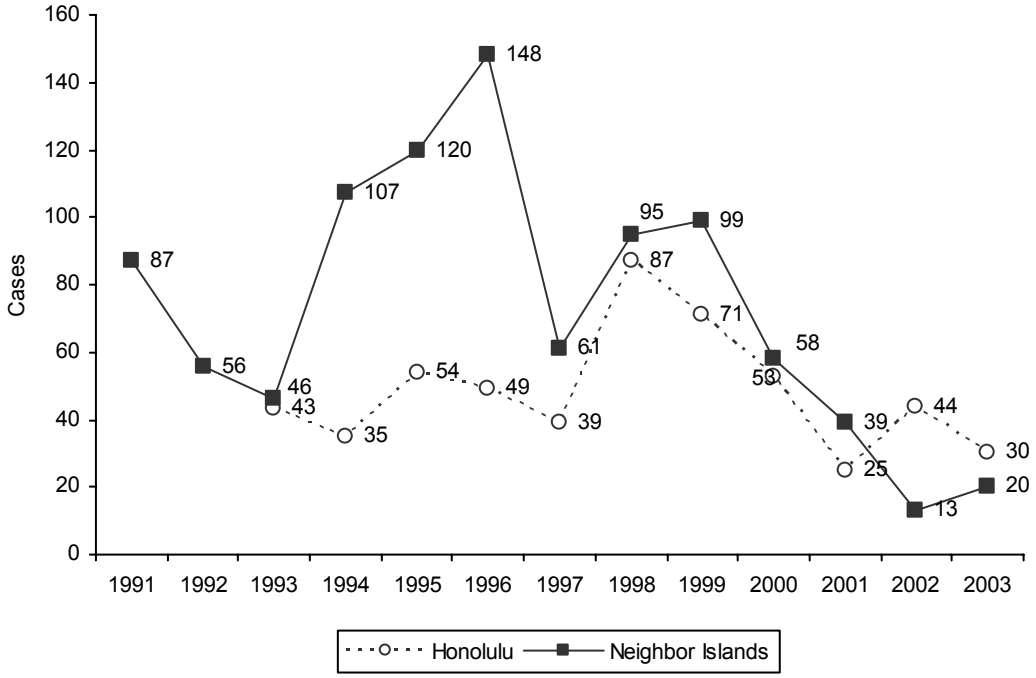
SOURCES: Honolulu and Kona Police Departments

Exhibit 4. Heroin Deaths[1] and Treatment Admissions: 1991–2003



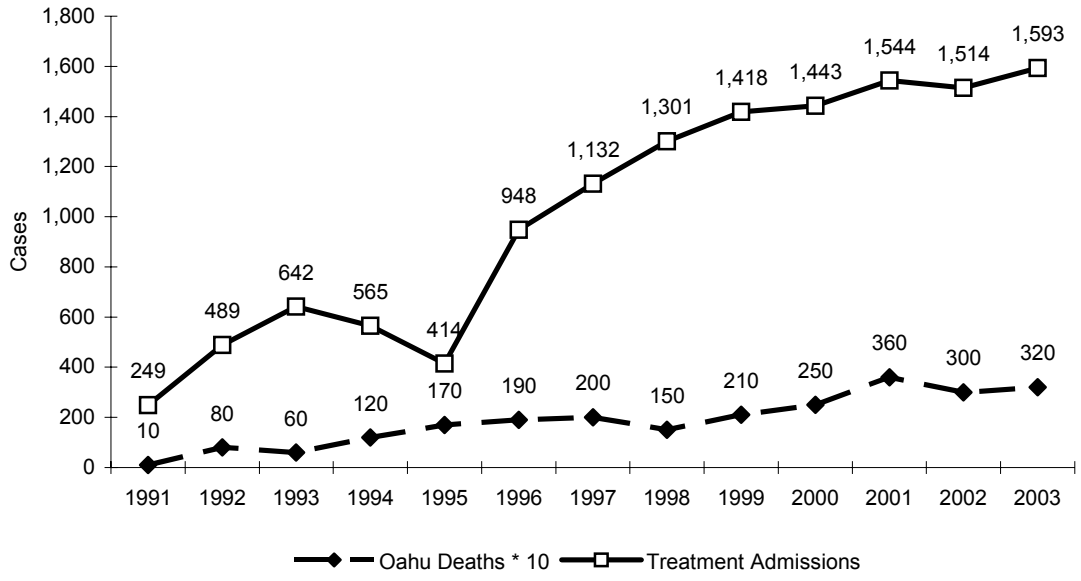
[1]To allow a direct comparison between ME data and treatment data, the ME data have been multiplied by 10.
SOURCES: Hawai'i State Department of Health, Alcohol and Drug Abuse Division; Honolulu City and County Medical Examiner Office

Exhibit 5. Heroin Police Data in Hawai'i: 1991–2003



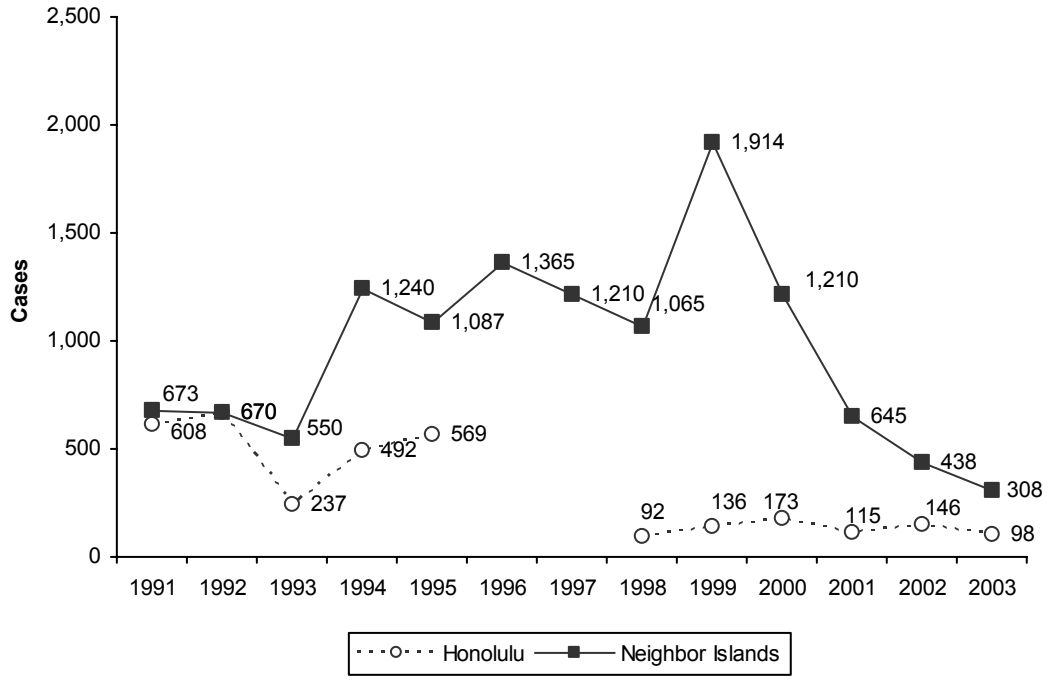
SOURCES: Honolulu and Kona Police Departments

Exhibit 6. Marijuana Deaths[1] and Treatment Admissions: 1991–2003



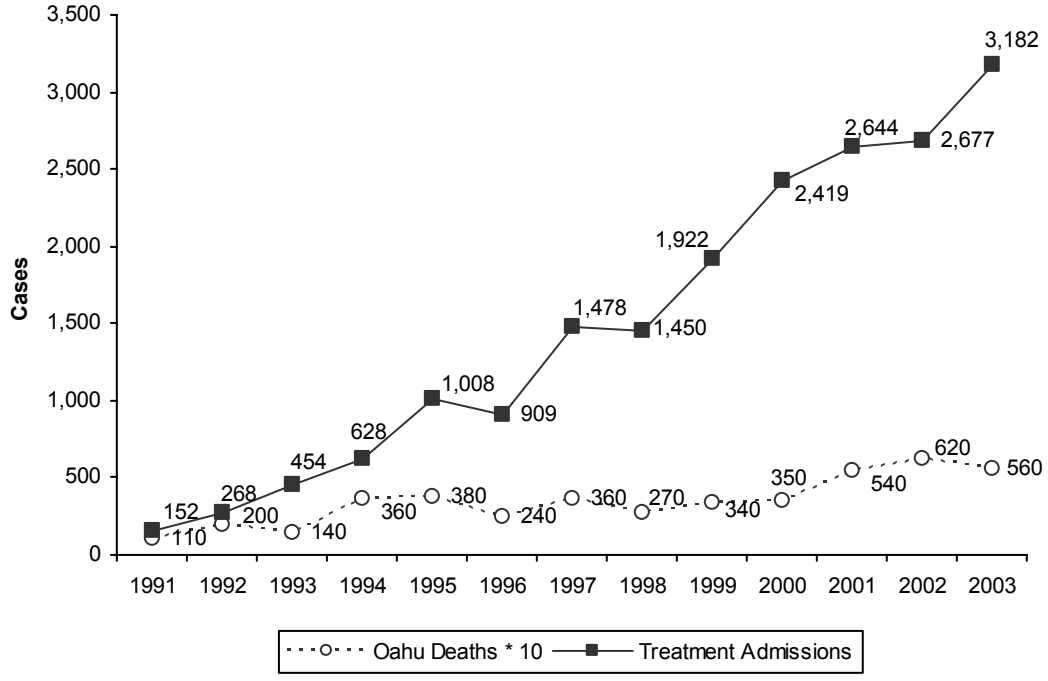
[1]To allow a direct comparison between ME data and treatment data, the ME data have been multiplied by 10.
SOURCES: Hawai'i State Department of Health, Alcohol and Drug Abuse Division; Honolulu City and County Medical Examiner Office

Exhibit 7. Marijuana Police Data in Hawai'i: 1991–2001



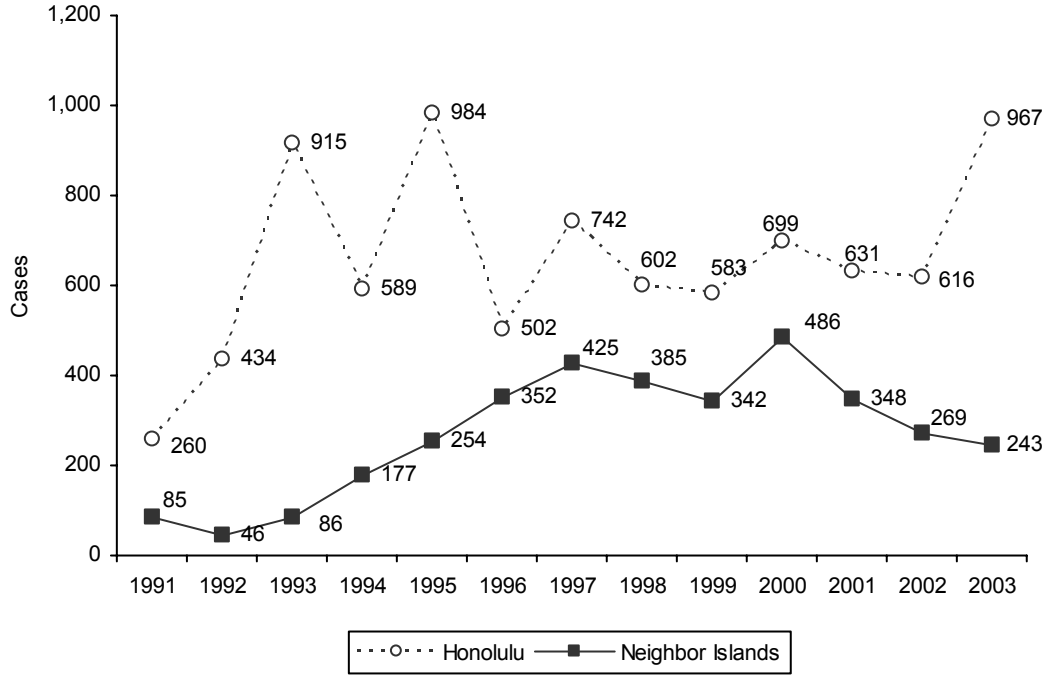
SOURCES: Honolulu and Kona Police Departments

Exhibit 8. Methamphetamine Death[1] and Treatment Data: 1991–2003



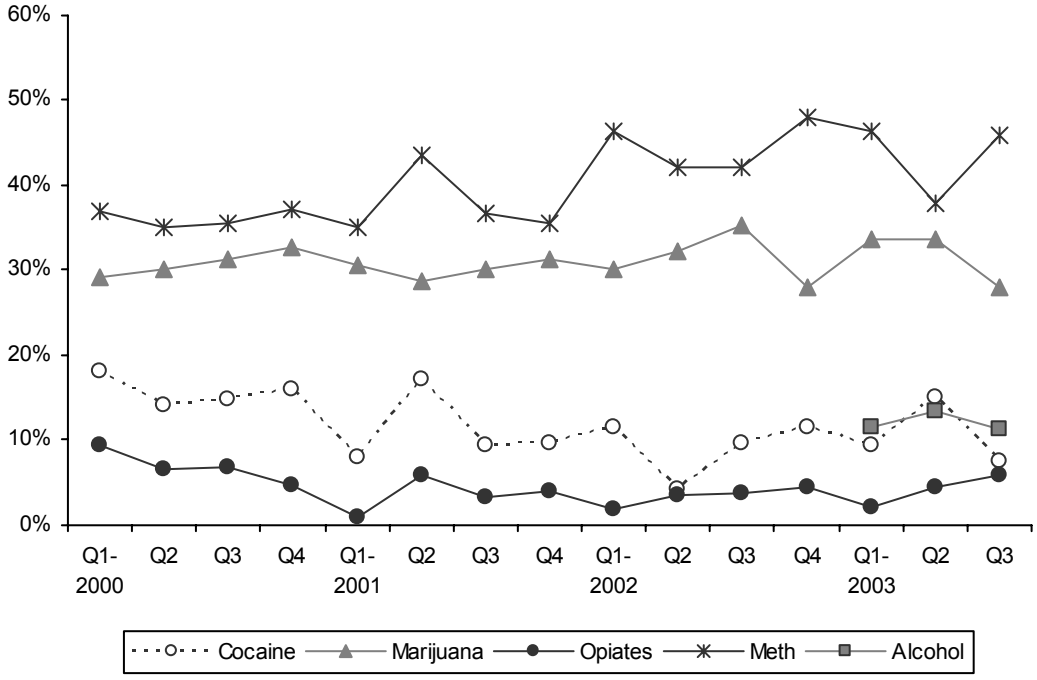
[1]To allow a direct comparison between ME data and treatment data, the ME data have been multiplied by 10.
SOURCES: Hawai'i State Department of Health, Alcohol and Drug Abuse Division; Honolulu City and County Medical Examiner Office

Exhibit 9. Methamphetamine Police Data in Hawai'i: 1991–2003



SOURCES: Honolulu and Kona Police Departments

Exhibit 10. ADAM Data in Honolulu



SOURCE: ADAM, NIJ

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

Beth Finnerty, M.P.H.[1]

ABSTRACT

Two main themes dominate Los Angeles County-level substance abuse indicator data in the current reporting period (through December 2003): (1) a relatively stable or mixed pattern for many drugs and (2) increasing patterns for a few drugs, specifically methamphetamine. Despite the fact that Los Angeles is a distribution hub, transshipment area, and final destination for most, if not all, major drugs of abuse and local residents have ready access to almost any illicit drug and many diverted pharmaceuticals, heroin, crack cocaine, methamphetamine, and marijuana continue to characterize substance use/abuse and its related consequences in Los Angeles. With regards to treatment admissions, one in four individuals entering a substance abuse treatment and recovery program in Los Angeles County self-report a primary heroin problem. Although primary heroin admissions constitute the largest percentage of all treatment and recovery admissions, their lead over the other major substances, such as alcohol, cocaine, methamphetamine, and marijuana, remains marginal. The proportion of cocaine/crack admissions decreased slightly to 18 percent, while admissions for primary methamphetamine problems climbed higher in late 2003 to 19 percent of all admissions. In 2003, approximately 41 percent of a sample of Los Angeles male arrestees who participated in the ADAM program tested positive for recent marijuana use, followed by methamphetamine (29 percent) and cocaine (24 percent). Once again, the Los Angeles HIDTA led all California HIDTAs in terms of clandestine methamphetamine laboratory seizures, accounting for more than one-half of the 831 seizures made in California in calendar year 2003. Despite a consistent decline in the number of methamphetamine laboratories in Los Angeles County specifically and the Los Angeles HIDTA in general, California is home of the domestic methamphetamine "superlab." Ninety percent of the 145 superlabs seized within the United States in 2003 were located in California; 40 percent of those were located in three Southern California counties: Los Angeles, San Bernardino, and Riverside Counties. Los Angeles City arrests for most drugs increased from 2002 to 2003. Drug prices and purities were relatively stable in the second half of 2003, with small changes occurring at the midlevel and retail level for certain drugs. One notable change in wholesale price occurred for PCP; the price of PCP nearly doubled as the result of a major law enforcement operation during the summer of 2003. Adolescent substance use data gathered as part of the CDC-supported Youth Risk Behavior Surveillance System survey showed relatively stable lifetime and past-month usage rates among Los Angeles Unified School District high school students. Aside from alcohol, students were most likely to report lifetime marijuana use (43 percent), followed by inhalants (14 percent), cocaine (10 percent), and methamphetamine (8 percent). The only substances for which female respondents were more likely to report lifetime and past-30-day use were inhalants. Indicator data for prescription drugs, PCP, LSD, MDMA (ecstasy), and GHB remained limited, but use and abuse are reported among some of the nontraditional indicators. In closing, recent law enforcement intelligence reports indicate that OxyContin is readily available in the Los Angeles HIDTA and has a street value of $1 per milligram.

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).

[1]The author is affiliated with UCLA Integrated Substance Abuse Programs, Los Angeles, California.

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 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).

The 2002–2003 Los Angeles County Health Survey (LACHS) was commissioned by the Los Angeles County Department of Health Services and conducted by Field Research Corporation between October 2002 and March 2003. The telephone survey is population-based and provides information concerning the health of Los Angeles County residents. The relatively large sample size allows users to obtain health indicator data for large demographic subgroups and across geographic regions of the county, including Service Planning Areas (SPAs) and Health Districts. Two questions from the 2002–2003 survey dealt specifically with substance use among Los Angeles County adults. The first corresponded to the percentage of adults who binge drank (five or more drinks on at least one occasion for men and four or more drinks for women) at least one time in the 30 days preceding the survey. Overall, 17.1 percent of Los Angeles County respondents reported binge alcohol use. SPA 3 (San Gabriel Valley) respondents reported a significantly lower rate (14.9 percent; $p<0.05$), whereas SPA 4 (Metro) respondents were more likely to report binge drinking (19.8 percent; $p<0.05$). The second question corresponded to the percentage of adults who currently smoke cigarettes. Overall, 15.6 percent of Los Angeles County adults reported smoking cigarettes. The only SPA that had a statistically different rate of smoking was SPA 1 (Antelope Valley; 20.6 percent). Please refer to exhibit 1 for additional statistics.

Data Sources

This report describes drug abuse trends in Los Angeles County from January 1997 to December 2003. Information was collected from the following sources:

- **Drug treatment data** were derived from the California Department of Alcohol and Drug Programs (ADP), California Alcohol and Drug Data System (CADDS), and correspond to Los Angeles County alcohol and other drug treatment and recovery program admissions for July 2000 to December 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.

- **Adult male and female arrestee drug use and urinalysis data** were accessed from the National Institute of Justice (NIJ), Arrestee Drug Abuse Monitoring (ADAM) program, for 2002 (data collected in Pasadena, California, in the third and fourth quarters for males and fourth quarter for females) and 2003 (data collected in Los

Angeles, California, in the first and fourth quarters for both males and 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 Clearinghouse (LA CLEAR), the National Drug 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 in calendar year 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. General health information (including Los Angeles County adult alcohol and cigarette use) was derived from the 2002–2003 Los Angeles County Health Survey.

- **Adolescent substance use statistics** were derived from the 2001 and 2003 Youth Risk Behavior Surveillance System survey, conducted by the Centers for Disease Control and Prevention. Lifetime and past-30-day usage statistics are included for a sample of high school students (grades 9–12) in the Los Angeles Unified School District. In addition, Los Angeles Unified School District data are compared to data from the San Diego and San Bernardino Unified School Districts.

- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** (cumulative through December 2003) were provided by the Los Angeles County Department of Health Services, HIV Epidemiology Program, Advanced HIV (AIDS) Quarterly Surveillance Summary, January 15, 2004.

Drug Abuse Warning Network (DAWN) emergency department (ED) data for Los Angeles for 2002 were reported in Patterns and Trends in Drug Abuse: Los Angeles County in *Proceedings of the Community Epidemiology Work Group, Volume II*, December 2003.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Approximately 18 percent of all Los Angeles County treatment and recovery program admissions in July–December 2003 reported a primary crack or powder cocaine problem (exhibit 2). The total number of primary cocaine/crack admissions decreased 8 percent from the first to the second half of 2003. As a percentage of the total, cocaine admissions have represented between 17 and 20 percent for several CEWG reporting periods. Alcohol was the most commonly reported secondary drug problem among primary cocaine admissions (40 percent), followed by marijuana (19 percent). Nearly 9 out of 10 cocaine admissions reported smoking crack, followed by inhalers (10 percent) (exhibit 3). When asked whether they had used any drug intravenously in the year prior to admission, approximately 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 4).

Sixty-seven percent of the primary cocaine admissions reported in the second half of 2003 were male, a slight increase over the first half of 2003. Black non-Hispanics continued to dominate cocaine admissions (at 56 percent), followed by Hispanics (21 percent) and White non-Hispanics (15 percent). In terms of age at admission, nearly 40 percent were concentrated in the 36–45 year age group; an additional 25 percent of all primary cocaine admissions were between the ages of 26 and 35 (exhibit 4).

Primary cocaine treatment admissions are more likely than treatment admissions for any other substance (alcohol, prescription medications, or illicit drugs) to report being homeless at admission (31 percent). The proportion of cocaine admissions referred to treatment through the criminal justice system in the second half of 2003 decreased slightly to 21 percent of all admissions. Primary cocaine users were more likely to self-refer to treatment (32 percent). Although 35 percent had never been admitted to treatment for a primary cocaine problem, approximately one-half (46 percent) had one or two prior treatment episodes. Forty-four percent earned a high school diploma or GED. At the time of admission, 14 percent were employed either full- or part-time.

According to Youth Risk Behavior Surveillance System (YRBSS) data for 2003, 9.9 percent of all

Los Angeles Unified School District (LAUSD) high school students (in grades 9 through 12) who responded to the survey had ever used cocaine (any form), and 4.1 percent used cocaine one or more times in the 30 days preceding the survey (past-30-day use) (exhibit 5). A breakdown of the data by gender illustrated that LAUSD males were more likely than females to report lifetime cocaine use (11.4 percent vs. 8.5 percent) and past-30-day cocaine use (4.5 percent vs. 3.7 percent) (exhibit 5). Two other Southern California USDs (San Diego and San Bernardino) participated in YRBSS as well. Among the three districts, the LAUSD had the highest proportion of both lifetime cocaine users and current cocaine users (exhibit 6).

When 2003 LAUSD-level YRBSS data for cocaine are compared with 2001 cocaine use data, a slight decline in both lifetime and past-30-day cocaine use is observed. The decline is more evident with regards to past-30-day use, which decreased from 5.9 percent of all survey respondents to 4.1 percent (exhibit 6).

According to recent ADAM data collected from a sample of Los Angeles adult male arrestees during 2003, nearly 1 in 4 (23.5 percent) tested positive for recent crack/cocaine use on urinalysis (exhibit 7). This is lower than the proportion seen in 2002 (32.1 percent). Past-7-day, past-30-day, and past-year crack cocaine use was 8.8 percent, 10.2 percent, and 15.8 percent, respectively. Of those men who self-reported past-year crack use, they reported using on an average of 5.4 days in the past 30 days. Self-reported powder cocaine use was higher for all three timeframes (10.1, 11.4, and 17.6 percent, respectively). Unweighted adult female program findings for 2003 showed that 25.9 percent of females tested positive for recent crack/cocaine use, which is marginally higher than the percent seen among their male counterparts (exhibit 7). In fact, cocaine is the only drug for which a greater percentage of female arrestees tested positive for recent use. Past-7-day, past-30-day, and past-year crack cocaine use among female arrestees was 15.6 percent, 18.8 percent, and 18.8 percent, respectively, consistently higher than the rates reported by male cocaine users. Of those women who self-reported past-year crack cocaine use, they reported using on an average of 13.5 days in the past 30 days. No female arrestees self-reported powder cocaine use.

A total of 3,541 cocaine arrests were made within the city of Los Angeles in calendar year 2003. This represented a 16-percent increase from the number of cocaine arrests made in 2002. Cocaine arrests accounted for 11.4 percent of all narcotics arrests made in 2003.

Citywide cocaine (including crack and powder) seizures increased 107 percent, from 887.01 pounds seized in 2002 to 1,834.97 pounds seized in 2003. The street value of the seized cocaine accounted for 33 percent of the total street value of all drugs seized in 2003.

Data from NFLIS for calendar year 2003 showed that out of 45,443 analyzed items reported by participating laboratories within Los Angeles County, 32.7 percent (14,874) of all items analyzed were found to be cocaine/crack. Cocaine/crack was the second most likely illicit drug to be found among items tested in the county, surpassed only by methamphetamine.

Los Angeles remains one of the primary markets for cocaine (in addition to Atlanta, Chicago, Houston, Miami, and New York; NDIC, 2004). All substance use/abuse indicators are higher for crack than for powder cocaine. Despite this, powder cocaine use is still reported in the area. Current midlevel prices of crack cocaine remained level at $500–$1,200 per ounce (exhibit 8), whereas the retail price range narrowed again to $10–$40 per rock, as compared to $10–$100 per rock reported in the December 2003 report. 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 December 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 8). The purity of powder cocaine is approximately 78 percent, similar to the purity cited in the last few CEWG reports.

Heroin

From July to December 2003, just over 6,700 Los Angeles County treatment and recovery program admissions were attributable to primary heroin abuse, compared with 6,891 admissions reported in the county in the first half of 2003. The proportion of primary heroin admissions among all Los Angeles County treatment and recovery programs appears to have leveled off at 25 percent of all admissions (exhibit 2). It is too early to make a definitive statement as to the apparent stabilization. Despite the consistent decline over recent years, heroin admissions continue to marginally account for the highest percentage of all treatment and recovery program admissions in the county. In the second half of 2003, primary heroin admissions were predominantly male (72 percent), more likely to be 45–50 years old (21 percent), and somewhat more likely to be Hispanic (42 percent) than White non-Hispanic (38 percent) or Black non-Hispanic (12 percent) (exhibit 3). Compared with other major

types of illicit drug admissions, primary heroin admissions from the second half of 2003 had the largest proportion of users age 36 and older. About one-third (36 percent) of all primary heroin admissions initiated their heroin use prior to age 18, which is quite low compared to other primary substances, such as alcohol, marijuana, and PCP. If primary heroin admissions abused another drug secondarily to heroin, it was most likely to be cocaine/crack (23 percent), followed by alcohol (12 percent). The proportion of primary heroin admissions reporting injection use continued to decrease slightly to 85 percent. This declining pattern in injection heroin use can be attributed to a slowly climbing increase in the percentage of heroin smokers (9 percent). Only 4 percent snorted (inhaled) heroin. When asked whether they had used any drug intravenously in the year prior to admission, 88 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 4).

Sixteen percent of all primary heroin admissions were homeless at time of admission, and only 4 percent were referred by the court or criminal justice system (exhibit 4). Primary heroin users were most likely to have self-referred themselves for the current treatment episode (71 percent of all heroin admissions). In a measure of current legal status, 75 percent were not involved at all with the criminal justice system. This corroborates with the very low proportion of criminal justice referrals among primary heroin users. Fourteen percent indicated that they had never received treatment for their heroin problem, whereas 51 percent reported three or more primary heroin treatment episodes. Forty-nine percent of all primary heroin admissions graduated from high school, and, at the time of admission, 20 percent were employed full- or part-time (exhibit 4).

According to YRBSS data for 2003, 2.2 percent of all LAUSD high school students in grades 9 through 12 who responded to the survey had ever used heroin; past-30-day use of heroin was not assessed (exhibit 5). A breakdown of the lifetime heroin use data by gender illustrated that LAUSD males were nearly twice as likely as their female classmates to report lifetime heroin use (2.9 percent vs. 1.5 percent) (exhibit 5). The San Bernardino USD had the highest percentage of high school students reporting lifetime use (3.9 percent). San Diego USD high school students were less likely to report lifetime heroin use (2.7 percent) (exhibit 6).

When 2003 LAUSD-level YRBSS data for heroin are compared with 2001 heroin use data, a slight increase in lifetime heroin use is observed. In 2001, 1.8 percent of the respondents reported lifetime heroin use, compared to 2.2 percent in 2003 (exhibit 6).

A very small percentage (2.0 percent) of a sample of adult male arrestees tested positive (on urinalysis) for recent opiate use, according to 2003 ADAM data (exhibit 7). This is a decrease from the percentage reported in 2002 (5.8 percent). The urinalysis results for recent opiate use substantiate the low levels of recent past-7-day, past-month, and past-year heroin use (0.7 percent, 1.1 percent, and 2.6 percent, respectively). Of the nearly 3 percent of adult male arrestees who admitted to past-year heroin use, they used on an average of only 4 days in the past 30. Whereas 14.3 percent of female arrestees tested positive for recent opiate use in 2002, unweighted adult female program findings for 2003 showed that no female arrestees tested positive for recent opiate use.

A total of 10,864 heroin arrests were made within the city of Los Angeles in calendar year 2003. This represented a 24-percent increase from the number of heroin arrests made in 2002. Heroin arrests accounted for approximately 35 percent of all narcotics arrests made from January 1, 2003, to December 31, 2003.

Twenty-one pounds of black tar heroin were seized within the city of Los Angeles in 2003, a decline of 45 percent from the amount seized in 2002. Similarly, seizures of other types of heroin decreased by 23 percent, from 21.6 pounds seized in 2002 to 16.5 pounds seized in 2003. The street value of all seized heroin accounted for 1.2 percent of the total street value of all drugs seized in 2003.

According to NFLIS data based on 45,443 analyzed items reported by participating laboratories within Los Angeles County between January and December 2003, only 3.4 percent (1,544) of all items analyzed were found to be heroin. This small proportion corresponds to the small proportion of heroin (black tar and other forms) reported among Los Angeles City seizures.

As in the past, Los Angeles is the primary market for Mexican black tar heroin, and to a lesser extent, brown powder heroin distributed to other Western States (NDIC, 2004). In addition, Mexican black tar heroin remains the type of heroin used by Los Angeles County users. Mexican criminal groups control the transportation and wholesale, midlevel, and retail activity (NDIC 2004). Preliminary data from the DEA Domestic Monitoring Program (DMP) show that, in calendar year 2003, the average purity level for 34 qualified samples was 29.7 percent (the source for all samples was identified as Mexico). The

samples cost $0.34 per milligram pure. Both figures represent slight increases from the statistics reported for calendar year 2002 (26.5 percent; $0.30 per milligram pure). According to LA CLEAR, the wholesale price per kilogram of Mexican black tar heroin is approximately $20,000 (the same price reported in December 2003). The current mid-level and retail prices are $500–$800 per "pedazo" (Mexican ounce) and $90–$100 per gram (exhibit 8), which are stable since the last report. A regular ounce is 28.5 grams, whereas a pedazo is 25.0 grams.

Mexican brown powder heroin sells for a wholesale price of $25,000 per kilogram, when available in the area. Retail distribution of Southeast Asian heroin remains limited, but it is associated with 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 $30,000 for a kilogram (up from $25,000 in December 2003) and $650–$800 for an 18-gram stick.

Other Opiates/Narcotics

Although other opiates/synthetics constitute a marginal proportion of all Los Angeles County treatment admissions, their representation as a primary drug of abuse has increased in the local treatment data, rising from 1.5 percent of all admissions in 1999 to 2.4 percent (645 admissions) in the second half of 2003. The number of other opiate/synthetic admissions reported in the second half of 2003 was 11 percent higher than the number of primary other opiates/synthetic admissions reported in the previous 6 months of 2003 and 58 percent higher than the number of other opiate/synthetic admissions reported in the second half of 2002 (*n*=408). Despite the small overall numbers of admissions, it will be important to carefully monitor future treatment admission data, given the increase in prescription drug abuse/misuse in other major CEWG areas. Other opiates/synthetics admissions were typically male (65 percent), White non-Hispanic (75 percent), and age 36–50 (51 percent). Only one-half of the primary other opiate/synthetic admissions were younger than 18. Interestingly, 70 percent administered other opiates/synthetics orally, but an additional 25 percent reported smoking. Sixty-four percent of primary other opiate/synthetic admissions reported no secondary or tertiary substance use. An additional 7 percent reported primary heroin use, and 9 percent reported primary alcohol use. Reports of primary non-prescription methadone admissions continued to be minimal among Los Angeles County treatment admissions (0.5 percent of all admissions).

Approximately 581 of the 45,443 items analyzed and reported to the NFLIS system in calendar year 2003 were pharmaceuticals/prescription medications (as opposed to illicit substances). Of those, more than one-half (303 items; 52 percent) were found to be analgesics. The most frequently cited analgesics were hydrocodone (143 items; 47 percent) and codeine (73 items; 24 percent). Other analgesics identified included oxycodone (14 items), methadone (14 items), and morphine (24 items). To put these numbers/percentages into perspective, analgesics accounted for 0.7 percent of all items analyzed by participating Los Angeles County laboratories.

In general, it is still hard to quantify the level of diverted pharmaceuticals available on the streets of Los Angeles. 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 (exhibit 8). OxyContin, the trade name for the powerful analgesic oxycodone hydrochloride, sells on the streets for $1 per milligram. LA CLEAR reports reveal that OxyContin is "readily available" in the LA HIDTA. Codeine sells for $5 per tablet.

An Oxnard pharmacist and Ventura-based physician were recently arrested and accused of prescribing and selling 160,000 Vicodin, OxyContin, and Dilaudid pills to 9 patients. According to authorities, the pills made their way into the hands of local drug dealers and gang members and may have been involved in several deaths. Law enforcement officials commented that "this case is just the tip of the iceberg and foreshadow increased incidents of medical practitioners diverting prescription drugs for personal use and/or profit" (LA CLEAR, 2003).

Marijuana

The number of primary marijuana treatment admissions in Los Angeles County decreased slightly (6 percent) from the first to the second half of 2003 (from 3,669 admissions to 3,452 admissions). As a per-

centage of the total, marijuana accounted for 13.1 percent of all admissions reported in July–December 2003 (exhibit 2). User demographics of primary marijuana admissions were relatively stable in the second half of 2003. Males (74 percent) and individuals younger than 18 (50 percent) constituted the majority of these admissions; 45 percent were Hispanic, 28 percent were Black non-Hispanic, and 17 percent were White non-Hispanic (exhibit 3). Alcohol was identified as a secondary drug problem for 45 percent of the primary marijuana admissions in the second 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 (74 percent) and users age 17 and younger (50 percent). When asked whether they had used any drug intravenously in the year prior to admission, less than 2 percent of all primary marijuana admissions answered affirmatively (exhibit 4).

Approximately 7 percent of the primary marijuana treatment admissions in the second half of 2003 were homeless at the time of admission, and 32 percent were referred to treatment by the court or criminal justice system. Sixty-four percent were entering treatment for the first time. Twenty-five percent had graduated from high school, and, at the time of admission, 14 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 YRBSS data for 2003, 43 percent of all LAUSD high school students (in grades 9 through 12) who responded to the survey had ever used marijuana and 22 percent used marijuana one or more times in the 30 days preceding the survey (past-30-day use) (exhibit 5). A breakdown of the data by gender illustrated that LAUSD males were more likely than females to report lifetime marijuana use (49 percent vs. 36 percent) and past 30-day use (28 percent vs. 17 percent) (exhibit 5). Among the three Southern California districts, LAUSD and SDUSD high school students were equally likely to report lifetime marijuana use (42.5 percent). San Diego USD students were most likely to report current marijuana use (22.4 percent) (exhibit 6).

When 2003 LAUSD-level YRBSS data for marijuana are compared with 2001 marijuana use data, a slight increase in lifetime use and a stable rate of past-30-day use is observed. Lifetime marijuana use increased from 41.2 percent in 2001 to 42.5 percent in 2003 (exhibit 6).

ADAM data collected during calendar year 2003 from a sample of Los Angeles adult male arrestees showed that an average of 41 percent had marijuana-positive urine screens (exhibit 7). This average was higher than that seen in 2002 (36 percent). In addition, the highest proportion of male arrestees tested positive for recent marijuana use, compared with the other drugs screened for on urinalysis. Past-7-day, past-30-day, and past-year marijuana use was 34.5 percent, 40.1 percent, and 45.6 percent, respectively. Of those men who self-reported past-year marijuana use, they reported using an average of 9 days in the past 30. Unweighted adult female program findings showed that in calendar year 2003, 30 percent tested positive for recent marijuana use. Past-7-day, past-30-day, and past-year marijuana use among female arrestees was 34.4 percent, 34.4 percent, and 40.6 percent, respectively. Of those women who self-reported past year marijuana use, they reported using an average of 10 days in the past 30.

According to NFLIS data based on 45,443 analyzed items reported by participating laboratories within Los Angeles County in calendar year 2003, 25 percent (11,311) of all items analyzed were found to be cannabis. Cannabis was the third most frequently identified substance in Los Angeles County.

A total of 5,367 marijuana arrests were made within the city of Los Angeles in 2003; this represents an 11-percent increase over the number of marijuana arrests made in 2002. Marijuana arrests accounted for approximately 17 percent of all narcotics arrests made in 2003.

Marijuana dominates among drug seizures in the city of Los Angeles. The amount of marijuana seized increased 34 percent, from 11,100.7 pounds in 2002 to 14,822.6 pounds in 2003. In 2003, the amount of marijuana seized accounted for more than 80 percent of the total weight of drugs (in pounds) seized. Cocaine was a very distant second, accounting for an additional 10 percent of the total weight. The street value of the seized marijuana accounted for approximately 48 percent of the total street value of all drugs seized in 2003.

Mexican traffickers are primarily responsible for distributing Mexican-grown marijuana in both Los Angeles and San Diego. In addition to this pattern, Los Angeles-based gangs sell marijuana at the wholesale level (NDIC, 2004). The wholesale price of Mexican-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 8). All prices remained stable since the beginning of 2003. The wholesale

price of domestic mid-grade 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 $300–$600 per ounce, and one-eighth ounce sells for $60–$80 (exhibit 8).

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 per pound value of $6,000 in Los Angeles. 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

Primary methamphetamine admissions to Los Angeles County treatment and recovery programs increased further from the first to second half of 2003. The 5,095 primary methamphetamine admissions reported in July–December 2003 accounted for 19.3 percent of all admissions (exhibit 2). Methamphetamine is the one illicit drug that has continually increased among treatment admissions over the past 3 years. Compared with other major illicit drug admissions, primary methamphetamine admissions had the largest proportion of females (40.2 percent), White Non-Hispanics (42.5 percent), Asian/Pacific Islanders (3.4 percent), 18–25-year-olds (28.7 percent), and 26–35-year-olds (34.9 percent).

The closing of the racial/ethnic gap between White non-Hispanic and Hispanic treatment admissions persisted in the second half of 2003. The proportion of White non-Hispanics decreased to 42.5 percent, whereas the proportion of Hispanics increased to 41.8 percent.

At one time, females accounted for 49 percent of both primary methamphetamine and other amphetamine admissions. This practically equal distribution of males and females was unique to methamphetamine and other amphetamines. The shifting gender distribution with methamphetamine treatment admissions has been discussed in recent reports. In the second half of 2003, however, the percentage of females among primary other amphetamine admissions plummeted to 36.8 percent. It is important to monitor this drug category to see if it is a true shift in demographics, or a one-time reporting issue.

In the first half of 2003, primary amphetamine admissions were most likely to fall within the 21–25 age group (21.7 percent). But in the second half of 2003, primary amphetamine admissions were most likely to fall within the 31–35 age group (23.6 percent), which was the modal age group in the second half of 2002. Primary amphetamine admissions were more likely to be Hispanic (41.5 percent) than White non-Hispanic (32.1 percent). Primary methamphetamine and other amphetamine admissions tended to most frequently report secondary abuse of alcohol or marijuana.

As shown in exhibit 3, smoking continued as the most frequently mentioned way for primary methamphetamine admissions to administer the drug. In 1999, one-half of all primary methamphetamine admissions smoked the drug. By the second half of 2003, 66.9 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 8.1 and 20.3 percent, respectively, in the second half of 2003. It appears that the route of administration pattern for methamphetamine may be leveling out, because in the first half of 2003, a nearly equal percentage of admissions reported smoking (66.7 percent) as in the second half of the year.

Like primary methamphetamine admissions, the mode of other amphetamine administration has shifted in recent years, as well. Almost two-thirds of all other amphetamine admissions in the first half of 2003 smoked amphetamines (63.2 percent), followed by 15.1 percent who inhaled, 11.3 percent who ingested orally, and 8.5 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 4). Approximately one-fifth of the primary methamphetamine treatment admissions were homeless (20.5 percent), and 20.0 percent were referred by the court or criminal justice system. Forty-six percent were entering treatment for the first time. Forty-three percent had graduated from high school, and, at the time of admission, 19 percent were employed full- or part-time.

According to YRBSS data for 2003, 8.0 percent of all LAUSD high school students (in grades 9 through 12) who responded to the survey had ever used methamphetamine; past-30-day use of the drug was

not assessed (exhibit 5). A breakdown of the lifetime methamphetamine use data by gender illustrated that LAUSD males were more likely than their female classmates to report lifetime methamphetamine use (9.4 percent vs. 6.7 percent) (exhibit 5). The San Bernardino USD had the highest percentage of high school students who reported lifetime use (8.5 percent). San Diego USD high school students were least likely to report lifetime methamphetamine use (7.6 percent) (exhibit 6).

When 2003 LAUSD-level YRBSS data for methamphetamine are compared with 2001 data, a very slight increase in lifetime methamphetamine use is observed. In 2001, 7.6 percent of the respondents reported lifetime use, compared with 8.0 percent in 2003 (exhibit 6).

Recent ADAM data collected from a sample of Los Angeles adult male arrestees during 2003 showed that an average of 28.7 percent had methamphetamine-positive urine screens (exhibit 9), which is much higher than the percentage seen in 2002 (14.8 percent). Self-reported past-7-day, past-30-day, and past-year methamphetamine use was 21.5 percent, 24.4 percent, and 28.5 percent, respectively, among adult males. Of those men who reported past-year methamphetamine use, they reported using an average of 8.4 days in the past 30. The unweighted data collected for adult female arrestees shows a similar trend, but to a lesser extent. The proportion of female arrestees testing positive for methamphetamine increased from 2002 (14.3 percent) to 2003 (18.5 percent) (exhibit 7). Self-reported past-7-day, past-30-day, and past-year methamphetamine use for females was 9.4 percent, 18.8 percent, and 21.9 percent, respectively. Of the women who responded in the affirmative when asked about their past-year use, they reported using methamphetamine an average of 4.3 days.

According to NFLIS data based on 45,443 analyzed items reported by participating laboratories within Los Angeles County between January and December 2003, 36 percent (16,241) of all items analyzed were found to be methamphetamine. Methamphetamine accounted for the largest proportion of samples positively identified by NFLIS. Methamphetamine was followed closely by cocaine (33 percent) and more distantly by cannabis (25 percent).

Throughout calendar year 2003, 274 amphetamine arrests were made within the city of Los Angeles, exceeding the number of arrests made during the same period in 2002 by 80 percent. Despite this large increase in the overall number of amphetamine arrests, as a class, they continued to account for about 1 percent of the total. Arrests for methamphetamine are included in the category "other narcotics." In 2003, 10,778 arrests for other narcotics were made, accounting for 35 percent of all arrests.

While methamphetamine is not reported separately in citywide drug arrests, it is broken out in citywide seizures. Citywide methamphetamine seizures increased 19 percent, from 446.2 pounds seized in 2002 to 534.9 pounds seized in 2003. The street value of the seized methamphetamine accounted for approximately 12 percent of the total street value of all drugs seized in 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 is 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 $5,000 to $8,000 (exhibit 8), which is an increase from the wholesale price reported in the last several updates ($3,700 to $5,000). The midlevel and retail prices are $450–$550 per ounce, $20 per one-quarter gram, $40–$100 per gram, and $60 per one-sixteenth ounce ("teener"). According to one intelligence source, the purity of finished methamphetamine available in the Los Angeles area remains at approximately 30–35 percent. Given the many different production "recipes" and the multiple types of methamphetamine entering into and staying in the Los Angeles area (locally produced and Mexican produced), however, it is very possible that there is a wide range of purity (especially since such a high percentage of users report smoking methamphetamine).

Crystal methamphetamine has a wholesale price of $7,000–$11,000 per pound in Los Angeles. The midlevel price for an ounce of crystal methamphetamine is $600–$800 (exhibit 8). A double case of pseudoephedrine (60-milligram tablets/17,000 tablets per case) sells for $3,250–$4,000. In addition, a 1,000-count bottle of 60-milligram tablets sells for $200.

According to LA CLEAR, the Los Angeles HIDTA once again led the State in the overall number of methamphetamine laboratory seizures made in 2003, accounting for 54 percent of all seizures made in California (452 of 831 seizures). Of the 4 counties in the LA HIDTA, Los Angeles County had the second

highest number of seizures during that time period (145), lagging slightly behind San Bernardino County (163), but surpassing Riverside County (107). Orange County rounded out the HIDTA with 37 laboratory seizures.

California leads the country in the number of domestic "superlabs." One-hundred and thirty out of 145 U.S. superlabs (90 percent) were seized in California in 2003. 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 (54 out of 130 superlabs seized in 2003, or 42 percent). This proportion is a slight decrease 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 in 2003.

The cost to clean up labs located in the LA HIDTA in 2003 totaled $1,681,109. One-third of this total corresponds to the cost of cleaning up Los Angeles County laboratories, second only to Riverside County (37.2 percent of the cleanup costs). These figures do not encompass building and environment remediation, which both cost taxpayers even more money.

Depressants

In the second half of 2003, 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.

As previously stated, approximately 581 of the 45,443 items analyzed by participating Los Angeles County laboratories and reported to the NFLIS system were positively identified as pharmaceutical/prescription medications (as opposed to illicit substances). Of those, 30 percent (174 items) were found to be benzodiazepines, and another 2 percent (12) items were found to be barbiturates. The most frequently cited benzodiazepines were diazepam (82 items), clonazepam (41 items), and alprazolam (38 items). Phenobarbital was the lone barbiturate identified (12 items).

According to LA CLEAR, Valium retails for $4 per tablet (exhibit 8).

Phencyclidine (PCP) and Hallucinogens

Primary PCP treatment admissions accounted for 1.0 percent of all admissions in the second half of 2003. The proportion of PCP admissions among all admissions has been stable for several years, but the overall number of PCP admissions increased 89 percent from 1999 to the first half of 2003. In the second half of 2003, however, the number of PCP admissions decreased slightly (16 percent) to 262 admissions. Alcohol (23.2 percent), marijuana (20.5 percent), and cocaine/crack (15.6 percent) were the secondary drugs most frequently reported by primary PCP admissions. A vast majority (93 percent) of the 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 lysergic acid diethylamide (LSD), peyote, and mescaline, continued to account for approximately 0.1 percent of the total treatment admissions.

Unfortunately, the YRBSS survey did not assess lifetime or past-30-day PCP or hallucinogen use.

Two percent of adult male arrestees who participated in ADAM in 2003 tested positive for recent PCP use. No adult females tested positive for recent PCP use (exhibit 7).

According to NFLIS data based on 45,443 analyzed items reported by participating laboratories within Los Angeles County between January and December 2003, approximately 1 percent (440) of all items analyzed were found to be phencyclidine.

Nearly 200 PCP arrests were made within the city of Los Angeles in 2003. This represented a minor 2.4-percent increase from the number of PCP arrests made in 2002. Like amphetamine arrests, PCP arrests accounted for less than 1 percent of all narcotics arrests made in Los Angeles in 2003.

The street value of the PCP seized between January and December 2003 represented approximately 6 percent of the total street value of all drugs seized during that period. The total amount of PCP seized in 2003 (30.9 pounds) was 83 percent lower than the amount seized during the same period in 2002 (187 pounds). This decrease continues the declining trend first seen in 2001.

Two recent Narcotics Digest Weekly Bulletins (NDIC, 2004) reported disruptions in the U.S. PCP market. California, and/or Los Angeles, was mentioned in both reports. In the first (March 30, 2004; Vol. 3, No. 13), 1 gallon of liquid PCP was seized in

Oklahoma. In the second (April 6, 2004; Vol. 3, No. 14), a PCP distribution group was dismantled in Washington, DC. The PCP was shipped via mail services, private vehicles, and commercial airlines from California to the District.

Because of a major PCP operation that took place in Los Angeles in summer 2003 (Operation Running Waters), the wholesale price range for a gallon of PCP virtually doubled overnight, from $8,500 to $15,000–$20,000 (exhibit 8). The ounce price remained high and stable at $600. A sherm cigarette dipped in liquid PCP continues to sell for $20–$30. A tight-knit group of Los Angeles-based African-American street gang members continues 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 8). 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 methylenedioxymethamphetamine (MDMA or ecstasy) and gamma hydroxybutyrate (GHB).

YRBSS began to assess ecstasy use among high school students in 2003. According to the survey results, 4.7 percent of all LAUSD high school students (in grades 9 through 12) who responded to the survey had ever used ecstasy; past-30-day use of the drug was not assessed (exhibit 5). A breakdown of the lifetime ecstasy use data by gender illustrated that LAUSD males were more likely than their female classmates to report lifetime use (5.7 percent vs. 3.8 percent) (exhibit 5). The San Diego USD had a much higher percentage of high school students who reported lifetime use (9.0 percent), which was nearly twice as high as the rate for Los Angeles. San Bernardino USD high school students were also more likely than LAUSD students to report lifetime ecstasy use (6.3 percent) (exhibit 6).

According to NFLIS data based on 45,443 analyzed items reported by participating laboratories within Los Angeles County in calendar year 2003, less than 1 percent (240) of all items analyzed were found to be MDMA, GHB, or ketamine. Of those three club drugs, MDMA was most likely to be detected; it represented 88 percent of the club drug samples analyzed by NFLIS. GHB and ketamine were equally likely to be found (6 percent each).

According to NDIC, the majority of MDMA available in Los Angeles is transported from Las Vegas or directly from Western Europe. Los Angeles is a source of both wholesale and midlevel amounts of MDMA, which is destined for markets around the United States, including Pacific, Southwest, and West Central States (NDIC, 2004). Mail service and air travel are the two most likely ways to transport the product into Los Angeles. Within Los Angeles, Israeli and Russian traffickers control the distribution at the wholesale level.

Wholesale and retail prices for club drugs remained stable since the December 2003 report. In multiple quantities, MDMA has a wholesale price of $12 per pill or capsule (a slight increase from a previously reported range of $5– $10; exhibit 10), which was the price first reported in June 2003. At the retail level, ecstasy usually sells for $20–$30 per pill. A standard dose of ecstasy is 60–150 milligrams, which is equivalent to one or two pills. In Los Angeles, ecstasy "boats" continue to be mentioned. A boat contains 1,000 MDMA pills and sells for $8,000. Flunitrazepam (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. In addition, ketamine retails for $20 for two-tenths grams of powder.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

A cumulative total of 47,628 adult/adolescent AIDS cases were reported in Los Angeles County through December 31, 2003. Of those cases, 1,399 were reported between July 1, 2003, and December 31, 2003. Currently, approximately 19,097 Los Angeles County residents are living with advanced HIV disease. Los Angeles County cumulative cases represent approximately 36 percent of the 133,858 cumulative cases in California and 5 percent of the 886,575 cumulative cases nationwide. Of the cumulative cases reported in Los Angeles County, 47 percent were White, 30 percent were Hispanic, 20 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 from 1997 to 2002, but it dropped to 4 percent in 2003 (exhibit 9). 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 1997. In 2003, 64 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 "undetermined" exposure category continues to rise steadily, and in 2003, it accounted for 23 percent of all male cases diagnosed that year.

The modal exposure category for females diagnosed with AIDS in 1997 was heterosexual contact (46 percent). This exposure category has been associated with a lower proportion of female AIDS cases since then; in 2003, it was associated with 32 percent of all newly diagnosed female AIDS cases. Female cases attributable to injection drug use, which had recently increased from 15 percent of all female cases in 2001 to 18 percent in 2002, decreased to 10 percent in 2003. The proportion of female cases with an "other" or "undetermined" exposure category continued to increase, accounting for nearly 60 percent of all female cases diagnosed in 2003.

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 3,334 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 38 percent), followed by equal percentages of Whites and Hispanics (each accounting for 31 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 7 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.

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Exhibit 1. Los Angeles County Health Survey—Health Behaviors and Social and Physical Environment, by Service Planning Area and Percent: 2002–2003

Health Behavior/Social and Physical Environment	LA County	Service Planning Area (SPA)[1]							
		SPA 1	SPA 2	SPA 3	SPA 4	SPA 5	SPA 6	SPA 7	SPA 8
Percent of Adults who Binge Drink[2]	17.1	15.8	16.2	14.9[3]	19.8[4]	18.5	16.1	19.1	17.3
Percent of Adults who Smoke Cigarettes	15.6	20.6[4]	15.1	14.8	17.0	14.3	14.2	15.0	16.9
Percent of Overweight Adults	35.4	39.1	37.0	34.8	34.5	26.4[3]	35.0	41.2[4]	33.9
Percent of Obese Adults	19.3	24.7	15.9[3]	17.7	17.2	10.6	30.0[4]	23.6[4]	21.2
Percent of Physically Active Adults	47.3	45.4	48.0	44.0[4]	51.8[3]	55.6[3]	44.5	47.6	44.6
Percent of Adults who Feel Neighborhood is Safe	79.4	87.5[3]	83.9[3]	87.7[3]	65.2[4]	90.8[3]	54.4[4]	80.9	80.9

[1]Los Angeles County is divided into eight Service Planning Areas (SPAs): SPA 1 Antelope Valley; SPA 2 San Fernando Valley; SPA 3 San Gabriel Valley; SPA 4 Metro; SPA 5 West; SPA 6 South; SPA 7 East; SPA 8 South Bay.
[2]Defined as five or more alcoholic drinks (four for women) on at least one occasion in the past 30 days.
[3]SPA is statistically better off than the Los Angeles County average ($p<0.05$).
[4]SPA is statistically worse off than the Los Angeles County average ($p<0.05$).
SOURCE: Los Angeles County Health Survey, Los Angeles County Department of Health

Exhibit 2. Numbers and Proportions of Semiannual Treatment Admissions in Los Angeles County, by Primary Illicit Drug of Abuse: January 2001–December 2003

Primary Drug	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 (%)	07/03–12/03 Number (%)
Cocaine/Crack	4,349 (18.4)	4,354 (19.4)	4,655 (19.6)	4,354 (19.0)	5,242 (19.3)	4,815 (18.2)
Heroin	9,527 (40.2)	8,033 (35.8)	7,767 (32.8)	7,096 (30.9)	6,891 (25.4)	6,704 (25.4)
Marijuana	2,258 (9.5)	2,028 (9.0)	2,686 (11.3)	2,816 (12.3)	3,669 (13.5)	3,452 (13.1)
Methamphetamine	2,403 (10.1)	3,015 (13.4)	3,453 (14.6)	3,692 (16.1)	4,961 (18.3)	5,095 (19.3)
PCP	198 (0.8)	207 (0.9)	196 (0.8)	219 (0.9)	314 (1.2)	262 (1.0)
Total Admissions	23,697	22,430	23,695	22,934	27,110	26,393

SOURCE: California Alcohol and Drug Data System (CADDS)

Exhibit 3. Characteristics of Treatment Admissions in Los Angeles County, by Primary Illicit Drug and Percent: July–December 2003

Characteristics	Cocaine/Crack	Heroin	Marijuana	Methamphet-amine	All Admissions
Gender					
Male	66.7	71.5	74.0	59.8	67.0
Female	33.3	28.5	26.0	40.2	33.0
Race/Ethnicity					
White non-Hispanic	15.4	38.0	17.4	42.5	31.9
Black non-Hispanic	56.3	12.5	27.6	3.0	23.5
Hispanic	20.9	42.2	45.3	41.8	35.7
American Indian	0.5	0.8	0.6	1.1	0.9
Asian/Pacific Islander	1.4	0.8	2.8	3.4	1.9
Other	5.6	5.8	6.4	8.2	6.2
Age					
17 and younger	1.6	0.3	49.5	7.8	11.4
18–25	9.8	8.2	23.6	28.7	15.2
26–35	25.3	19.3	13.9	34.9	23.0
36 and older	63.3	72.2	13.0	28.6	50.4
Route of Administration					
Oral	1.8	1.5	2.8	3.5	23.2
Smoking	86.7	8.8	96.6	66.9	45.5
Inhalation	10.1	3.9	0.4	20.3	7.0
Injection	0.9	85.2	0.0	8.1	23.5
Unknown/other	0.5	0.6	0.2	1.3	0.7
Secondary Drug	Alcohol	Cocaine/ Crack	Alcohol	Marijuana	Alcohol
Total Admissions (*N*)	(*4,815*)	(*6,704*)	(*3,452*)	(*5,095*)	(*26,393*)

SOURCE: California Alcohol and Drug Data System (CADDS)

Exhibit 4. Additional Characteristics of Treatment Admissions in Los Angeles County, by Primary Illicit Drug of Abuse and Percent: July–December 2003

Characteristics	Cocaine	Heroin	Marijuana	Methamphet-amine	All Admissions
Positive for Intravenous Drug Use in Past Year	4.5	88.2	1.2	13.1	27.2
Homeless	30.5	15.7	6.5	20.5	19.5
Employed Full- or Part-Time	13.7	20.0	14.1	18.8	17.8
Graduated from High School	44.4	48.5	25.0	43.4	42.7
Referred by Court/Criminal Justice System (Not Including SACPA[1] Referrals)	21.1	4.1	32.0	20.1	17.0
First Treatment Episode	34.8	14.0	64.4	45.5	39.0
Total Admissions (*N*)	(*4,815*)	(*6,704*)	(*3,452*)	(*5,095*)	(*26,393*)

[1]SACPA = Substance Abuse and Crime Prevention Act of 2000 (a.k.a., Proposition 36.)
SOURCE: California Alcohol and Drug Data System (CADDS)

Exhibit 5. Alcohol and Drug Use Patterns Among Los Angeles Unified School District High School Students, by Gender: 2003

Usage Patterns Among High School Respondents	Los Angeles Unified School District (9th–12th Grade)		
	Females	Males	Total
Alcohol			
Lifetime	51.1	58.3	54.6
Past 30 Days	12.0	16.9	14.4
Heavy Episodic Drinking[1]			
Lifetime	N/A[2]	N/A	N/A
Past 30 Days	20.0	23.6	21.8
Cocaine (Any Form)			
Lifetime	8.5	11.4	9.9
Past 30 Days	3.7	4.5	4.1
Ecstasy (MDMA)			
Lifetime	3.8	5.7	4.7
Past 30 Days	N/A	N/A	N/A
Heroin			
Lifetime	1.5	2.9	2.2
Past 30 Days	N/A	N/A	N/A
Inhalants			
Lifetime	15.4	11.6	13.5
Past 30 Days	5.3	3.8	4.5
Marijuana			
Lifetime	36.2	49.0	42.5
Past 30 Days	16.6	27.9	22.2
Methamphetamine			
Lifetime	6.7	9.4	8.0
Past 30 Days	N/A	N/A	N/A
Illegal Steroids (Pills or Shots)			
Lifetime	3.2	3.5	3.3
Past 30 Days	N/A	N/A	N/A
Injection Drug Use			
Lifetime	1.0	1.8	1.4
Past 30 Days	N/A	N/A	N/A

[1]Drank five or more drinks of alcohol in a row on 1 or more days.
[2]N/A=Not applicable.
SOURCE: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Exhibit 6. Alcohol and Drug Use Patterns Among High School Students, by Southern California Unified School District (USD) and Percent: 2001 vs. 2003

Usage Patterns Among High School Respondents	Los Angeles USD		San Bernardino USD		San Diego USD	
	2001	2003	2001	2003	2001	2003
Alcohol						
Lifetime	73.9	76.1	68.6	72.9	76.5	75.3
Past 30 Days	39.8	42.5	34.9	37.8	41.0	38.5
Episodic Heavy Alcohol Use[1]						
Lifetime	N/A[2]	N/A	N/A	N/A	N/A	N/A
Past 30 Days	21.9	21.8	21.1	22.0	24.3	22.2
Cocaine (Any Form)						
Lifetime	10.1	9.9	8.6	7.5	8.8	7.7
Past 30 Days	5.9	4.1	3.6	4.0	3.8	3.0
Ecstasy (MDMA)						
Lifetime	N/A	4.7	N/A	6.3	N/A	9.0
Past 30 Days	N/A	N/A	N/A	N/A	N/A	N/A
Heroin						
Lifetime	1.8	2.2	4.6	3.9	2.9	2.7
Past 30 Days	N/A	N/A	N/A	N/A	N/A	N/A
Inhalants						
Lifetime	17.2	13.5	11.6	10.8	11.3	12.8
Past 30 Days	4.6	4.5	3.8	4.2	3.3	3.7
Marijuana						
Lifetime	41.2	42.5	38.0	40.1	41.8	42.5
Past 30 Days	22.5	22.2	17.9	19.5	22.5	22.4
Methamphetamine						
Lifetime	7.6	8.0	8.6	8.5	8.4	7.6
Past 30 Days	N/A	N/A	N/A	N/A	N/A	N/A
Illegal Steroids (Pills or Shots)						
Lifetime	4.4	3.3	5.2	5.5	5.2	4.4
Past 30 Days	N/A	N/A	N/A	N/A	N/A	N/A
Injection Drug Use						
Lifetime	1.5	1.4	2.5	3.0	1.8	2.4
Past 30 Days	N/A	N/A	N/A	N/A	N/A	N/A

[1]Drank 5 or more drinks of alcohol in a row on 1 or more days.
[2]N/A=Not applicable.
SOURCE: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Exhibit 7. Arrestees Testing Positive for Recent Drug Use by Gender, Type of Substance, and Percent: 2002–2003

Type of Drug	2002[1]		2003[2]	
	Male[3]	Female[4]	Male	Female
Any Drug[5]	62.3	57.1	68.6	59.3
Alcohol	N/A	N/A	6.6	50.0
Cocaine	32.1	21.4	23.5	25.9
Marijuana	36.4	35.7	40.7	29.6
Opiates	5.8	14.3	2.0	0.0
Methamphetamine	14.8	14.3	28.7	18.5
PCP	1.8	7.1	2.0	0.0
Multiple Drugs[6]	24.6	28.6	26.3	14.8

[1]Data for 2002 were collected in Pasadena, California, in the third and fourth quarters for males and in the fourth quarter for females.
[2]Data for 2003 were collected in Los Angeles in the first and fourth quarters for both males and females.
[3]Male findings are weighted and represent probability-based sampling.
[4]Female findings are unweighted and not based on probability sampling.
[5]National Institute on Drug Abuse five primary drugs (cocaine, heroin, marijuana, methamphetamine, and PCP), excluding alcohol.
[6]Two or more of the drugs listed in the table, excluding alcohol.
SOURCE: ADAM, NIJ

Exhibit 8. Illicit Drug Prices in Los Angeles: July–December 2003

Type of Illicit Drug	Price		
	Wholesale	Midlevel	Retail
Cocaine			
Powder	$14,000–$17,000 per kilogram	$500–$600 per ounce	$80 per gram
Crack Cocaine	N/R[1]	$500–$1,200 per ounce	$10–$40 per rock
Heroin			
Mexican Black Tar	$20,000 per kilogram	$500–$800 per 25 grams	$90–$100 per gram
Mexican Brown Powder	$25,000 per kilogram	N/R	N/R
Southeast Asian	$35,000–$40,000 per 300–350-gram unit	N/R	N/R
	$70,000–$80,000 per 700–750-gram unit	N/R	N/R
Southwest Asian	$30,000 per kilogram	N/R	N/R
Opium	$650–$800 per 18-gram stick	N/R	N/R
South American	$86,000–$100,000 per kilogram	N/R	N/R
Marijuana			
Mexico-produced	$300–$400 per pound	$60–$80 per ounce	$10 per gram
Domestic	$1,000–$1,200 per pound	$200–$250 per ounce	$25 per gram
Sinsemilla	$2,500–6,000 per pound	$300–$600 per ounce	$60–$80 per ⅛ ounce
BC Bud	$6,000 per pound	N/R	N/R
Hashish	$8,000 per pound	N/R	N/R
Methamphetamine	$5,000–$8,000 per pound	$450–$550 per ounce	$20 per ¼ gram $40–$100 per gram $60 per 1/16 ounce $100–$120 per ⅛ ounce
Crystal Methamphetamine	$7,000–$11,000 per pound	$600–800 per ounce	N/R
Pseudoephedrine	$3,250–$4,000 double case (1 case=17,000 60-mg tablets) $200 (1000-count bottle of 60-mg tablets)	N/R	N/R
PCP	$15,000–$20,000 per gallon	$600 per ounce	$20–$30 per sherm cigarette
LSD	$150–$200 per sheet	N/R	$5–$10 per dose
Psilocybin Mushrooms	N/R	N/R	$20 per ⅛ ounce
MDMA (ecstasy)	$12 per tablet (multiple tablets) $8,000 per boat (1,000 tablets)	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 1-mg pill
Steroids	N/R	N/R	$10 per dose
Valium	N/R	N/R	$4 per tablet
Vicodin	N/R	N/R	$5–$10 per tablet
OxyContin	N/R	N/R	$1 per milligram
Codeine	N/R	N/R	$5 per tablet

[1]N/R=Not reported.
SOURCE: NDIC and LA CLEAR

Exhibit 9. Annual Adult/Adolescent AIDS Cases by Gender, Year of Diagnosis, and Exposure Category: 1997–2003

Adult/Adolescent Exposure Category[1]	1997 Number (%)	1998 Number (%)	1999 Number (%)	2000 Number (%)	2001 Number (%)	2002[2] Number (%)	2003[2] Number (%)
Males							
Male-to-Male Sexual Contact	1,226 (65)	1,097 (64)	1,007 (64)	870 (61)	814 (61)	818 (60)	527 (64)
Injection Drug Use	138 (7)	102 (6)	80 (5)	93 (7)	94 (7)	73 (5)	34 (4)
Male-to-Male Sexual Contact/Injection Drug Use	120 (6)	98 (6)	85 (5)	88 (6)	83 (6)	79 (6)	43 (5)
Hemophilia or Coagulation Disorder	10 (1)	<5 (-)	<5 (-)	5 (<1)	5 (<1)	<5 (-)	<5 (-)
Heterosexual Contact	62 (3)	62 (4)	53 (3)	52 (4)	63 (5)	49 (4)	27 (3)
Transfusion Recipient	7 (<1)	<5 (-)	<5 (-)	<5 (-)	5 (<1)	6 (<1)	<5 (-)
Mother with/at Risk for HIV	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)
Other/Undetermined	315 (17)	336 (20)	332 (22)	306 (23)	175 (21)	334 (25)	194 (23)
Male Subtotal	**1,878**	**1,704**	**1,567**	**1,418**	**1,339**	**1,360**	**829**
Females							
Injection Drug Use	75 (28)	48 (23)	42 (20)	36 (17)	32 (15)	35 (18)	11 (10)
Hemophilia or Coagulation Disorder	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)
Heterosexual Contact	125 (46)	96 (45)	95 (45)	93 (43)	75 (35)	65 (33)	34 (32)
Transfusion Recipient	7 (3)	<5 (-)	<5 (-)	<5 (-)	6 (3)	8 (4)	<5 (-)
Mother with/at Risk for HIV	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)	<5 (-)
Other/Undetermined	62 (24)	64 (30)	68 (33)	86 (40)	98 (46)	90 (45)	61 (58%)
Female Subtotal	**269**	**212**	**209**	**216**	**212**	**199**	**106**
Total	**2,148**	**1,916**	**1,776**	**1,634**	**1,551**	**1,559**	**935**

[1]Exposure categories are ordered hierarchically. Cases with multiple exposure categories are included in the category listed first.
[2]Data are provisional due to reporting delay.
SOURCE: Los Angeles County Department of Health Services, HIV Epidemiology Program

Drug Abuse in Miami and Ft. Lauderdale, Florida

James N. Hall[1] and Madeline Camejo, Pharm.D.[2]

ABSTRACT

More people died from a lethal dose of a prescription drug than from an illicit street drug in Florida during 2003, continuing a pattern identified in 2002. Narcotic analgesics (oxycodone, hydrocodone, and methadone) and benzodiazepines were the medications most frequently cited in these deaths. Methadone and alprazolam (Xanax) have been linked to the fastest growing problems. In South Florida, abuse of medications appears more prevalent in Palm Beach and Broward Counties than in Miami-Dade. Polysubstance abuse patterns continue to be revealed in cases of drug-related deaths, medical emergencies, and addiction treatment admissions. 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 and the 'club drug' pattern of using MDMA along with other drugs simultaneously or sequentially. Cocaine indicators are at a high level across the region, and deaths attributed to cocaine continued to rise. Many of these cocaine deaths involved opioid abuse. GHB hospital episodes and deaths continued to decline. Ecstasy abuse appears to have peaked and is even considered passé by some former users, yet the drug is being replaced by methamphetamine among some groups. High local rates of sexually transmitted diseases are linked to men who have sex with other men while under the influence of methamphetamine and other drugs. Area youth continue to report some of the lowest rates of drug use in the State and Nation.

INTRODUCTION

Area Description

Located in the extreme southern portion of the Florida peninsula, Miami-Dade County has a population of nearly 2.6 million; 56 percent are Hispanic, 21 percent are Black, 21 percent are White, and 2 percent are Asian/Pacific Islander. Miami is Dade County's largest city, with 360,000 residents. More than 100,000 immigrants arrive in Florida each year; one-half establish residency in Miami-Dade County.

Broward County, situated due north of Miami-Dade, is composed of Ft. Lauderdale plus 28 other municipalities and an unincorporated area. The county covers 1,197 square miles, including 25 miles of coastline. According to the 2000 census, the population was 1,649,925. The population is roughly 63 percent White, 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 account for one-third of the State's 16.3 million population. Starting in 2003, these three counties constitute the new metropolitan statistical area (MSA) for South Florida, making it the sixth largest MSA 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

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South America. South Florida's airports and seaports remain among the busiest in the Nation for both cargo and international passenger traffic. These ports of entry make this region a major gateway for illicit drugs. Smuggling by cruise ship passengers is an important trend in South Florida drug trafficking and has apparently been growing because of airline security increases after September 11, 2001.

Several factors impact the potential for drug abuse problems in South Florida, including the following:

- Proximity to the Caribbean and Latin America exposes South Florida to the entry and distribution of illicit foreign drugs destined for all regions of the United States. Haiti 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 (FDLE), Medical Examiners Commission, 2003 Report of Drugs Identified in Deceased Persons by the Florida Medical Examiners' Commission and the Broward County Medical Examiner Department.

- **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. 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 eight semiannual periods from 2000 to 2003.

- **Drug treatment data** on a client sample were provided by Spectrum Programs, Inc., for 2003.

- **Data on drug use among arrestees** are from the National Institute of Justice's (NIJ) Arrestee Drug Abuse Monitoring (ADAM) program for Miami-Dade County, Florida, in the fourth quarter of 2003.

- **Drug analyses data** were derived from the Drug Enforcement Administration's (DEA) National Forensic Laboratory Information System (NFLIS) 2003 Annual Report for Miami-Dade County and 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*, December 16, 2003.

- **Heroin price and purity information** were obtained from the U.S. DEA's Domestic Monitoring Program (DMP) 2003 report.

- **Information on methamphetamine abuse** among men who have sex with other men is from a 2003 study conducted by Steven Kurtz, Ph.D., and Jason Weaver of the University of Delaware's Center for Drug and Alcohol Studies in Coral Gables, Florida.

- **School survey data** on prevalence of drug use are from the Florida Youth Substance Abuse Surveys for 2002 and 2003 and the Centers for Disease Control and Prevention's 2003 Youth Risk Behavior Survey and the National Institute on Drug Abuse's 2003 Monitoring the Future Survey of students in grades 8–12 nationally.

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

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine-related deaths increased in 2003, while other indicators of its abuse remained stable at high levels. Many of these recent cocaine deaths also involved opioid abuse. Cocaine abuse rates in South Florida rank among the highest in the Nation, as indicated by drug deaths, hospital ED visits, crime lab data, and drug treatment admissions.

Throughout Florida, there were 1,614 cocaine-related fatalities during 2003, representing a 23-percent increase over the 1,307 cocaine-related fatalities in 2002 and a 46-percent increase from the total for 2001. Among the 2003 cases, 70 percent involved the use of another drug, thus reflecting prevalent polydrug abuse patterns with cocaine (exhibit 1). A large proportion of cocaine ED episodes also involved at least one other substance.

The 189 cocaine-related deaths in Miami-Dade County during 2003 represented a 25-percent increase over the number of such deaths during 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 273. There were 48 cocaine-induced deaths in Miami-Dade County during 2003, representing a 50-percent increase over the number for 2002. The 32 cocaine-induced deaths during 2002 represented 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 54 percent of the 189 cocaine-related deaths during 2003 in Miami-Dade County.

There were 138 deaths related to cocaine abuse in Broward County during 2003, representing a 14-percent increase over the number of cases in 2002. Among the 2003 cases, the drug was detected at a lethal dose level in 62 deaths (45 percent). Cocaine-related deaths in Broward County totaled 121 in 2002, 94 in 2001, 80 in 2000, and a record high of 139 deaths in 1999. Nonspecific, polydrug mixtures were detected in 75 percent of the 138 cocaine-related deaths during 2003 in Broward County. The 62 Broward cocaine-induced deaths during 2003 were stable from 64 such deaths in 2002. There were 52 Broward cocaine-induced deaths in 2001 and 40 in 2000.

Beginning in 2003, DAWN has increased the number of hospitals reporting to the national system and enhanced the surveillance of drug-related hospital ED mentions to provide expanded and more rapid local reporting on such activity. In South Florida, DAWN is currently recruiting new hospitals for the system in Palm Beach and Broward Counties to complete coverage for the region's newly expanded MSA that includes these two counties along with Miami-Dade, which previously alone made up the region's MSA. The new area is named the Miami-Ft. Lauderdale MSA. DAWN will also expand to the Tampa/St. Petersburg MSA in Florida as well. The new DAWN will dramatically enhance the surveillance capabilities and timeliness of the system. Yet, data from the new system are not available for this report. Thus, DAWN data for Miami-Dade County are presented through 2002. It will not be appropriate to compare information from the new DAWN with the former reporting system.

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 1 drug other than cocaine, rising from 1,673 ED such mentions in 1995 to 3,726 ED mentions in 2002. 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 from 1,405 to 1,330. 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 last 6 months of 2003, cocaine clearly remained the most commonly involved illicit drug in ED mentions at BGMC, accounting for 56 percent of the 1,285 drug abuse cases.

Most of the BGMC cocaine patients were male (75 percent); 53 percent were White, 42 percent were Black, and 5 percent were Hispanic/other. Cocaine-using patients seeking emergency department treatment at BGMC were 30 years of age or older in 76 percent of these cases, continuing a trend of older

cocaine ED patients. The patients' ages were as follows: 4 percent were in their teens, 19 percent were in their twenties, 35 percent were in their thirties, 32 percent were in their forties, and 10 percent age 50 or older.

At BGMC, cocaine was taken in combination with alcohol in 48 percent of the cases, the same rate as in the first half of 2003. This dangerous combination forms a co-metabolite, cocaethylene, which can dramatically increase toxicity. The combination of cocaine and marijuana was involved in 27 percent of the cases. Crack cocaine was specifically mentioned in 26 percent of the cases in the last half of 2003, slightly less than in 31 percent of cases in the previous 6 months.

Treatment data for this report are based on a sample of 935 admissions to the Spectrum Programs during the second half of 2003. Of these clients, 565 cited a primary drug of abuse and 280 named a secondary or tertiary substance. In the second half of 2003, primary cocaine abuse accounted for 181 of the 565 addiction treatment cases at Spectrum Programs (32 percent) for which a primary drug of abuse was cited. An additional 90 clients cited cocaine as a secondary or tertiary drug of abuse. Of these 280 cocaine clients, 56 percent were White, 28 percent were Black, and 16 percent were Hispanic/other. The majority (48 percent) were age 35 or older, 26 percent were age 26–34, 12 percent were 18–25, and 6 percent were younger than 18.

The ADAM program in Miami tested male arrestees only in the fourth quarter of 2003. At that time, 41.7 percent tested cocaine-positive, which was the highest proportion among the three CEWG cities tested only for that quarter.

Powder cocaine and crack continue to be described as "widely available" throughout Florida. NFLIS reported that there were 9,401 cocaine samples analyzed in Miami-Dade County in 2003, representing 67 percent of all samples tested. Lidocaine was the main drug detected in six samples.

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 $18,000–$26,000 per kilogram wholesale and $30–$60 per gram retail, while crack cocaine sold for $10–$20 per "rock" in South Florida. Cocaine-laced marijuana cigarettes are also gaining popularity. Users typically cover marijuana with powered cocaine before rolling it into cigarettes, often referred to as "dirties." Distributors sell prepackaged marijuana and powered cocaine for $15 per pack.

In the State of Florida, the 2003 Florida Youth Substance Abuse Survey revealed that 2.8 percent of 8th grade, 4.3 percent of 10th grade, and 8.5 percent of 12th grade Florida youth surveyed statewide had ever used cocaine. The 8th and 10th grade rates were down from the 2002 survey, which had 3.2 percent of 8th graders and 5.1 percent of 10th graders reporting lifetime cocaine use. However, the rate increased for 12th graders from 7.5 percent in 2002.

In 2003, current cocaine use was reported in results of the Youth Risk Behavior Survey by 3.2 percent of high school students in Miami-Dade County (down from 4 percent in 2001) and by 2.2 percent of high school students in Broward County (down from 2.6 percent in 2001) (exhibit 3). In Palm Beach County, 4.6 percent of high school students reported current cocaine use in the same survey. The rate for the high school students in all of Florida was 4 percent, compared with 4.1 percent for students nationwide.

Heroin

A major opiate epidemic continues in South Florida from Palm Beach to Miami-Dade Counties. South American heroin has been entering the area over the past decade. Abuse of narcotic pain medication has fueled opioid consequences. Polydrug abuse patterns have facilitated first-time use of 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 261 heroin-related deaths in 2003 (exhibit 1), representing a 20-percent decline from the previous year. Yet deaths from three different narcotic opiates increased 7 percent over the same period. 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 32 decedents during 2003 in Miami-Dade County (exhibit 4). It was considered the cause of death in 28 (88 percent) of those cases. Other drugs were detected in 25 (78 percent) of the cases. None of the heroin-related fatalities was

younger than 18; 19 percent were age 18–25, 22 percent were 26–34, 50 percent were 35–50, and 9 percent were older than 50.

In Broward County, heroin was detected in 49 deaths in 2003 (exhibit 4), including 43 (88 percent) in which it was found at a lethal dose level. Other drugs were detected in 39 (80 percent) of the cases. One of the heroin-related fatalities was younger than 18; 16 percent were age 18–25, 18 percent were age 26–34, 49 percent were 35–50, and 14 percent were older than 50.

The 49 heroin-related deaths during 2003 in Broward County reflected a 14-percent increase over the 43 such deaths in 2002. There were 41 heroin-related deaths in 2001. The relatively low number of 24 heroin-related deaths in 2000 was attributed to a sharp rise in other opioid deaths linked to prescription narcotics at that time.

From 1995 to 2000, Miami-Dade County recorded the greatest number of heroin induced-deaths of any county or ME district in the State. Beginning in 2002, Palm Beach and Broward Counties ranked first and second in the State. In 2003, Broward County ranked first, with 43 heroin-induced deaths, followed by Orlando (33), Miami-Dade County (28), and Palm Beach County (27).

Miami-Dade County's per capita rate of 85 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. 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 emergency department charts at BGMC for the second half of 2003, there were a total of 83 heroin cases (6 percent of all illicit substance abuse cases). This was slightly down from the first half of 2003 (92 cases or 7 percent).

The BGMC heroin cases in the second half of 2003 were predominantly among older White males experiencing withdrawal and/or seeking detoxification. Males accounted for 73 percent and Whites for 78 percent of the heroin cases. There were two teenagers, while 33 percent of the patients were in their twenties, 35 percent were in their thirties, 24 percent were in their forties, and 5 percent were 50 or older. In the second half of 2003, 36 percent of BGMC ED heroin cases involved patients younger than 30, which was an increase from 27 percent in the first half of 2003.

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 40 percent of the cases, and the most common reasons for the patient to visit the ED were dependence and withdrawal or seeking detoxification in 48 percent of the cases.

In the second half of 2003, primary heroin abuse accounted for 23 of the 565 addiction treatment cases at Spectrum Programs (4 percent) for which a primary drug of abuse was cited. An additional 13 clients cited heroin as a secondary or tertiary drug of abuse. Of these 36 heroin clients, 67 percent were White, 5 percent were Black, and 27 percent were Hispanic/other. The majority (57 percent) were age 35 or older, 35 percent were age 26–34, 8 percent were 18–25, and none were younger than 18.

Among the ADAM program cities where male arrestees were tested only in the fourth quarter of 2003, the proportions testing opiate-positive were lowest in Miami at 2.5 percent and highest in Boston at 17.3 percent.

The NFLIS reported there were 593 heroin samples analyzed in Miami-Dade County in 2003, representing 4 percent of all samples tested.

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.

The DEA's DMP analyzed 39 street-level samples of heroin for Miami in 2003. All of the samples were of South American heroin, and they averaged 25.6 percent pure heroin. The average price per milligram pure was $0.90. Nationally, there were 468 South American heroin samples tested by the program in 2003. The average purity nationally was 41.8 percent heroin, and the average price was $0.89 per milligram pure.

Colombian heroin is still described as widely available in South Florida by law enforcement officials and described as somewhat available by epidemiologists/ ethnographers. According to NDIC, 1 kilogram of heroin sells for $45,000–$80,000 in Miami, and retail prices are roughly $100–$200 per gram. The most common street unit of heroin is a bag (roughly 20 percent purity) weighing about one-tenth of a gram that sells for $10.

NIDA's Monitoring the Future (MTF) national survey of adolescent drug abuse revealed a statistically significant decrease in lifetime heroin use among national 10th and 12th graders between 2000 and 2003, dropping from 2.2 percent to 0.9 percent among 10th graders and from 2.4 percent to 0.8 percent among 12th graders. Results from the 2003 Florida Youth Substance Abuse survey reveal that the lifetime use of heroin statewide was 1.5 percent among 10th graders and 1.8 percent among 12th graders. In both cases, the Florida youth lifetime rates are now greater than the national rates as reported by the MTF survey.

In 2003, any lifetime heroin use was reported in the Youth Risk Behavior Survey by 2.5 percent of high school students in Miami-Dade County and by 2.3 percent of high school students in Broward County (exhibit 3). In Palm Beach County, 3.7 percent of high school students reported lifetime heroin use in the same survey. The rate for the high school students in all of Florida and nationwide as well was 3.3 percent.

Other Opiates

Deaths from opiates other than heroin (including hydrocodone, oxycodone, and methadone) have been tracked in Florida since 2000. Beginning in 2003, morphine, propoxyphene, fentanyl, hydromorphone, meperidine, and other opioids were included in the Florida Medical Examiners Commission's surveillance monitoring program. Methadone-related deaths statewide increased 9 percent between 2002 and 2003, when they reached 608. This followed a larger increase of 56 percent between 2001 and 2002. Methadone was the cause of death in 60 percent of the methadone cases in 2003. The number of hydrocodone deaths increased 3 percent between 2002 and 2003 to 572 cases, after having increased 32 percent from 420 in 2001 to 554 in 2002. Hydrocodone was the cause of death in 31 percent of the hydrocodone-related deaths in 2003. The number of oxycodone deaths increased 7 percent between 2002 and 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 2003. When the above ME mentions are added to those for heroin, these opioid-related ME mentions in Florida in 2003 totaled 2,073, a 2-percent increase from the previous year. With the addition of other opioids that were first tracked in 2003, the total of deaths for this category for that year was 3,401 statewide. Most were polydrug episodes, including 87 percent of the oxycodone ME cases, 86 percent of the methadone ME cases, 78 percent of the hydrocodone ME cases, 81 percent of the heroin deaths, 79 percent of propoxyphene deaths, and 70 percent of morphine ME cases (exhibit 1).

Miami-Dade County reported 19 oxycodone-related deaths during 2003 (exhibit 4); 7 (37 percent) were oxycodone-induced deaths. Broward County recorded 81 oxycodone-related deaths, of which 57 (70 percent) were oxycodone induced. Only five of the deaths involved oxycodone alone. In Palm Beach County, there were 53 oxycodone-related deaths; 21 (40 percent) were oxycodone-induced. Another drug was present in 87 percent of the cases.

Miami-Dade County reported 15 hydrocodone-related deaths during 2003; 5 (33 percent) were hydrocodone induced. Broward County recorded 38 hydrocodone-related deaths during that period, and 20 (53 percent) were hydrocodone induced. In Palm Beach County, 9 (17 percent) of the 52 hydrocodone-related deaths in 2003 were hydrocodone induced.

Miami-Dade County reported 3 methadone-related deaths in 2003; all were methadone-induced deaths. Broward County recorded 51 methadone-related deaths during that period, with 20 (39 percent) considered methadone induced. In Palm Beach County, there were 73 methadone-related deaths in 2003; 60 (82 percent) were considered methadone induced.

Miami-Dade County reported 27 morphine-related deaths during 2003; 4 (15 percent) were morphine-induced deaths. Broward County recorded 29 mor-

phine-related deaths, of which 15 (52 percent) were morphine induced. In Palm Beach County, there were 61 morphine-related deaths in 2003; 31 (51 percent) were morphine-induced deaths.

Miami-Dade County reported eight propoxyphene-related deaths during 2003; five (62 percent) were propoxyphene-induced deaths. Broward County recorded 29 propoxyphene-related deaths, of which 12 (41 percent) were propoxyphene induced. In Palm Beach County, there were 31 propoxyphene-related deaths, 3 (10 percent) of which were 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 second half of 2003, there were 79 oxycodone cases at BGMC, compared with 67 oxycodone cases in the first half of 2003. Males accounted for 59 percent, and 80 percent of the cases were White. These patients' ages ranged from 13 to 63. There was one teenager, while 21 percent of the patients were in their twenties, 30 percent were in their thirties, another 39 percent were in their forties, and 9 percent were 50 or older. The drug was being intentionally abused in 22 percent of the oxycodone cases; in 36 percent of cases, it was used for other psychic effects (such as excessive amounts for pain, etc.). In 12 percent of cases, the oxycodone was taken in a suicidal gesture. Coingestants in the oxycodone cases included benzodiazepines in 35 percent of the cases, marijuana in 15 percent, cocaine in 28 percent, and other opioids such as heroin or methadone in 15 percent.

The NFLIS reported 108 narcotic analgesic samples were analyzed in Miami-Dade County in 2003, representing less than 1 percent of all samples submitted. These included the following number of narcotic analgesic samples: 61 oxycodone, 22 hydrocodone, 8 codeine, 6 morphine, and 6 methadone.

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. In comparison, the BSO Crime Lab tested 115 oxycodone cases in the first half of 2002, 95 in the second half of 2001, 80 in the first half of 2001, 71 in the last half of 2000, and 69 in the first half of 2000.

Additionally, there were 88 hydrocodone BSO 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 and addiction treatment admissions among young people, while cocaine is the most common illicit drug among older 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.

Cannabinoids were detected in 722 deaths statewide in Florida during 2003, a 6-percent increase from the 682 marijuana-related deaths in 2002.

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.

During last 6 months of 2003, a daily review of all ED charts at BGMC was conducted to gauge illicit substance abuse-related cases. Among the 1,285 such cases identified, 34 percent or 433 cases involved marijuana, of which 42 percent were marijuana alone with or without alcohol cases. Males accounted for 74 percent of the marijuana cases; 12 percent of the cases were teenagers, 32 percent were in their twenties, another 25 percent were in their thirties, 24 percent were in their forties, and 6 percent were 50 or older. The race/ethnicity of these patients were as follows: 57 percent were White, 39 percent were Black, and 4 percent were Hispanic/other or unknown.

Marijuana in combination with cocaine was found in 44 percent of the BGMC cases; 15 percent of the marijuana BGMC cases involved benzodiazepines. Marijuana was also found in combination with ecstasy or amphetamine in 3 percent (n=12) of the cases. Alcohol was the only documented coingestant with marijuana in 16 percent of the cases. Marijuana is still the most commonly abused illicit drug among young people visiting the emergency department. Nearly one-half (47 percent) of all illicit substance abuse cases among 12–25-year-olds involved marijuana.

In the second half of 2003, primary marijuana abuse accounted for 361 of the 565 addiction treatment cases at Spectrum Programs (64 percent) for which a primary drug of abuse was cited. An additional 168 clients cited marijuana as a secondary or tertiary drug of abuse. Of these 529 marijuana clients, 48 percent were White, 35 percent were Black, and 17 percent were Hispanic/other. Most of the marijuana clients (40 percent) were younger than 18; 25 percent were age 18–25, 20 percent were age 26–35, and 15 percent were age 35 or older.

Marijuana cigarettes to which powder cocaine has been added are referred to locally as "dirties," a term used in a song by a local hip-hop singer. 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.

Among the three ADAM sites in CEWG cities where male arrestees were tested only in the fourth quarter of 2003, the proportions testing marijuana-positive were lowest in Miami at 40.7 percent and highest in Boston at 51.3 percent.

The NFLIS reported there were 3,144 marijuana samples analyzed in Miami-Dade County in 2003, representing 22 percent of all samples tested.

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 $800–$1,000. 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 range from $2,500 to $4,000.

The Florida Youth Substance Abuse Survey reported a decrease statewide in lifetime marijuana use during the years between 2000 and 2002 among 8th, 10th, and 12th graders. In 2003, lifetime marijuana use continued to decrease among 8th graders, but there was an increase among 10th and 12th graders. The 2003 survey statewide figures are 19.5 percent for 8th graders, 34.1 percent for 10th graders, and 45.0 percent for 12th graders.

In 2003, current marijuana use was reported in results of the Youth Risk Behavior Survey by 15.8 percent of high school students in Miami-Dade County (down from 17 percent in 2001) and by 17.9 percent of high school students in Broward County (down from 21.8 percent in 2001) (exhibit 3). In Palm Beach County, 22.6 percent of high school students reported current marijuana use in the same survey. The rate for the high school students in all of Florida was 21.4 percent, compared with 22.4 percent for students nationwide.

Gamma Hydroxybutyrate (GHB)

GHB, an anesthetic, has been a commonly abused substance in South Florida for the past 8 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.

There were 11 GHB-related deaths reported statewide in 2003, 3 (27 percent) of which were considered to have been caused by the drug. In all of Florida, GHB-related deaths increased from 23 in 2000 to 28 in 2001 and then declined to 19 in 2002 and again in 2003.

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 emergency department cases treated at BGMC since 2001. Thirteen people with GHB or GHB precursor overdose were treated at the BGMC ED in the first 6 months of 2003, and in the last 6 months of 2003, 17 people were treated, for a total of 30 (exhibit 5). This compares with totals of 77 in 2000, 71 in 2001, and 34 in 2002. In 2003, the ages of the GHB toxicity patients ranged from 19 to 41 years, with an average age of 27.9. There was one teenager (6 percent), while 76 percent of the patients were in their twenties, 11 percent were in their thirties, and 12 percent were in their forties. The reason for coming to the hospital for 64 percent of the GHB ED visits was related to withdrawal symptoms, while 17 percent were brought in because of unresponsiveness.

The NFLIS reported 13 samples of 1,4 butanediol were analyzed in Miami-Dade County in 2003, along with 8 samples of GHB. The NFLIS also reported 16 samples of ketamine and 5 samples of psilocybin (mushrooms) were analyzed in Miami-Dade County in 2003.

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 MDMA 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 139 methylated amphetamine-related deaths in the State of Florida during 2003, representing a 10-percent increase from the 126 such deaths in 2002. The drug was considered the cause of death in 22 percent of the 2003 cases. Florida recorded 147 methylated amphetamine-related deaths statewide in 2001.

The types of methylated amphetamines detected in 2003 included methamphetamine (58 percent), MDMA (26 percent), methylenedioxyamphetamine (MDA) (15 percent), and other methylated amphetamines (1 percent).

In Miami-Dade County, 135 MDMA ED mentions were reported by DAWN in 2002, a 27-percent decline from 2001 (exhibit 2).

Seventy-two hospital cases at BGMC involved amphetamines and methylated amphetamines during the second half of 2003. The name "ecstasy" was mentioned in 54 percent of these 72 cases, "crystal meth" was specifically mentioned in 19 percent, and there were 19 other cases in which nonspecified amphetamines were involved. White males accounted for 82 percent of the 39 "ecstasy" cases, ranging in age from 17 to 55. Teenagers accounted for 13 percent; 44 percent were in their twenties, 18 percent were in their thirties, another 18 percent were in their forties, and 5 percent were in their fifties. There were seven cases of coingestants of ecstasy and Viagra. All were males ranging in age from 27 to 38.

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 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.

In South Florida, ecstasy tablets sell for $5–$7 per tablet in bulk or $10–$20 for a single pill.

According to the national Monitoring the Future Study, reported lifetime ecstasy use was at an all-time high among 8th, 10th, and 12th graders in 2001, at 5.2 percent, 8 percent, and 11.7 percent, respectively. However, these proportions decreased in 2003 to 3.2 percent, 5.4 percent, and 8.3 percent among 8th, 10th, and 12th graders, respectively.

The 2003 Florida Youth Substance Abuse Survey revealed lifetime ecstasy use statewide among 12th graders was at an all-time high at 15.1 percent, and it was used more often than any other illicit drug except marijuana. Florida 12th graders lifetime ecstasy use is now greater than the national average. In fact, roughly twice as many Florida 12th graders had used ecstasy in their life as had used cocaine, and 15 times as many 12th graders had used ecstasy as had used crack cocaine.

In 2003, any lifetime ecstasy use was reported in results of the Youth Risk Behavior Survey by 8.2 percent of high school students in Miami-Dade County and by 7.8 percent of high school students in Broward County (exhibit 3). In Palm Beach County, 12.1 percent of high school students reported lifetime ecstasy use in the same survey. The rate for the high school students in all of Florida was 9.7 percent, and 11.1 percent of high school students nationwide reported lifetime ecstasy use.

Other Stimulants

Numerous indicators confirm problematic crystal methamphetamine use among some sexually active men who have sex with other men (MSM) and who refer to the drug as "Tina." It is often linked to co-occurring disorders of sexual addiction and compulsive cyber-sexual behavior. A local study of gay men attending a Miami circuit party conducted by Steven P. Kurtz, Ph.D., and Jason C. Weaver of the University of Delaware Center for Drug and Alcohol Studies revealed 62 percent reported using crystal methamphetamine and an equal proportion reported high-risk sexual behavior (exhibit 6). Such behavior, referred to as "PNP" or "party and play," is associated with a dramatic increase in sexually transmitted diseases in Broward and Miami-Dade Counties among MSM populations (exhibit 7).

Sources report "crystal" or smokeable methamphetamine is being shipped by overnight delivery services from California. Mexican drug trafficking organizations were also mentioned as a source of powdered methamphetamine in 2003. Law enforcement sources confirm increased trafficking and seizures of relatively small local methamphetamine labs.

Either d-methamphetamine or l-methamphetamine was identified in 58 percent of the 139 methylated amphetamine-related deaths in Florida in 2003 in which the specific type of methylated amphetamine was identified. These same two drugs were detected in 43 percent of the 126 methylated amphetamine-related deaths in Florida in 2002 and in 30 percent of the 147 such 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 2). 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 last 6 months of 2003 at BGMC, there were 72 ED cases in which some type of amphetamine or methylated amphetamine, including ecstasy, was either mentioned in the history or detected on a toxicology screen. White males accounted for 45 percent of the amphetamines cases, which ranged between 17 and 42 years of age. However, crystal methamphetamine (a smokeable form of methamphetamine) was specifically documented in 14 cases, up from 10 cases in the first half of 2003.

A very small proportion (0.4 percent) of Miami male arrestees tested methamphetamine-positive in the fourth quarter of 2003 in the ADAM program.

The NFLIS reported there were 322 total methylated amphetamine samples analyzed in Miami-Dade County in 2003, representing 3 percent of all samples tested. These included the following numbers of samples: 237 of 3,4-methylenedioxymethampheta-

mine (MDMA), 111 of methamphetamine, and 20 of 3,4-methylenedioxyamphetamine (MDA).

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 were more than double the number of cases in 2001.

In South Florida, crystal methamphetamine sells for $2,000–$3,000 per ounce, $600–$700 per one-eighth ounce (3.5 grams), and $50–$60 per one-quarter gram.

In 2003, any lifetime methamphetamine use was reported in the Youth Risk Behavior Survey by 3.8 percent of high school students in Miami-Dade County (down from 4.8 percent in 2001) and by 4.5 percent of high school students in Broward County (down from 5.6 percent in 2001) (exhibit 3). In Palm Beach County, 7.1 percent of high school students reported lifetime methamphetamine use in the same survey. The proportion of high school students in all of Florida who reported lifetime methamphetamine use was 6.4 percent, and it was 7.6 percent among high school students nationwide.

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.

Benzodiazepines

Benzodiazepines in general and alprazolam (Xanax) in particular are a substantial problem in Miami. Benzodiazepines were second only to alcohol in their involvement in drug-related deaths throughout Florida in 2002.

There were 1,794 benzodiazepine-related deaths in Florida during 2003, representing a 10-percent increase over the 1,307 ME mentions in 2002. Of the 2003 deaths, a benzodiazepine was identified as the cause of death in 368 cases (or 21 percent), the same proportion for this category 2002.

Miami-Dade County reported 40 alprazolam-related deaths during 2003 (exhibit 8); 12 (30 percent) were alprazolam-induced deaths. Broward County recorded 90 alprazolam-related deaths, of which 41 (46 percent) were alprazolam induced. Only seven of the deaths involved alprazolam alone. In Palm Beach County, there were 94 alprazolam-related deaths; 18 (19 percent) were alprazolam induced. Another drug was present in 95 percent of the cases.

Miami-Dade County reported 25 diazepam-related deaths during 2003 (exhibit 8); 2 (8 percent) were diazepam induced. Broward County recorded 98 diazepam-related deaths during that period, and 30 (31 percent) were diazepam induced. In Palm Beach County, 6 (15 percent) of the 41 diazepam-related deaths in 2003 were diazepam induced.

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 2002, up 32 percent from the 309 mentions in 2000.

At BGMC in the last 6 months of 2003, there were 219 benzodiazepine ED mentions, including 51 percent that specifically cited alprazolam. Males accounted for 64 percent of the cases. Teenagers accounted for 5 percent of these mentions; 27 percent were in their twenties, 31 percent were in their thirties, another 30 percent were in their forties, and 8 percent were age 50 or older.

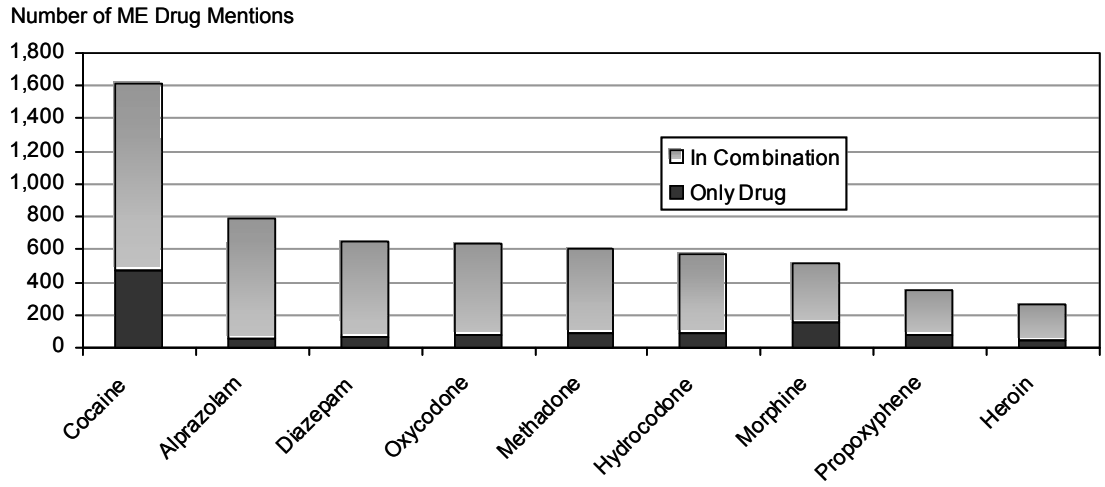
The NFLIS reported there were 322 total benzodiazepine samples analyzed in Miami-Dade County in 2003, representing 2 percent of all samples tested. These include the following numbers of benzodiazepine samples: 292 alprazolam, 15 diazepam, 10 clonazepam, and 5 lorazepam.

According to the 2003 national Monitoring the Future Study, lifetime use of "tranquilizers" (which includes as an example "Xanax" since 2001) was at 4.3 percent, 8.8 percent, and 11.4 percent for 8th, 10th, and 12th graders, respectively. This is an all-time high among 12th graders.

For the 2002 Florida Youth Substance Abuse Survey, alprazolam (Xanax) was added to a category of "Depressants." In 2003, lifetime use of this category increased from 2002 among 10th graders (from 10.3 percent in 2002 to 10.5 percent in 2003) and 12th graders (from 12.7 percent in 2002 to 13.6 percent in 2003). Reported lifetime use declined among 8th graders from 5.1 percent in 2002 to 4 percent in 2003.

For inquiries concerning this report, please contact James N. Hall, Up Front Drug Information Center, 12360 SW 132nd Court, Suite 215, Miami FL 33186, Phone: 786-242-8222, E-mail: upfrontin@aol.com.

Exhibit 1. Drug-Related Deaths in Florida by Single Drug or In Combination: 2003



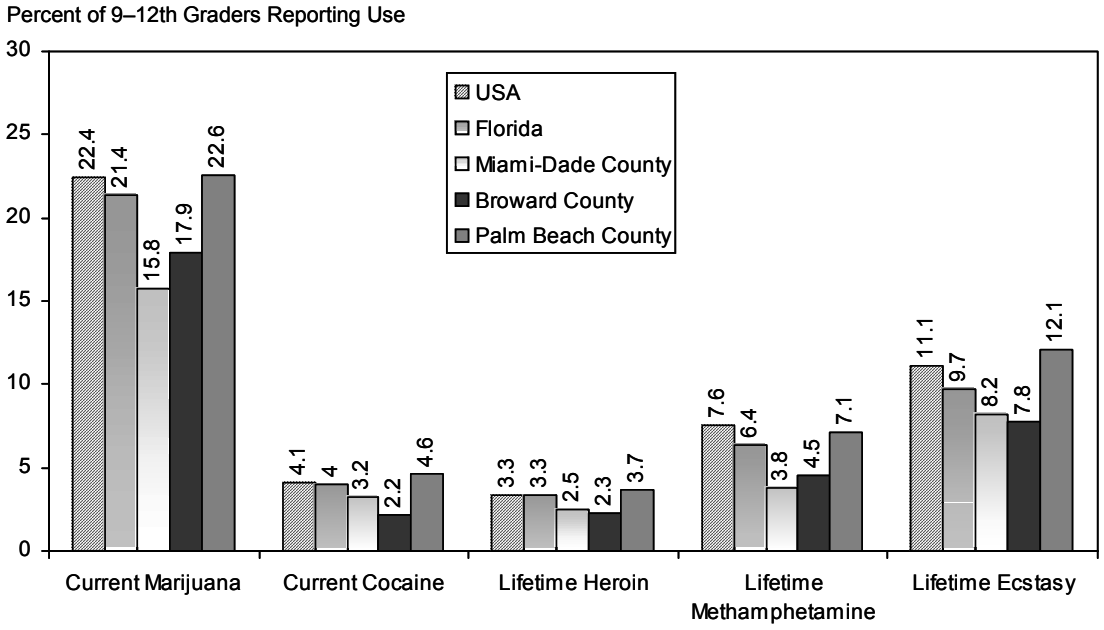
SOURCE: Florida Medical Examiners' Commission

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	…[1]	…	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[2]	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

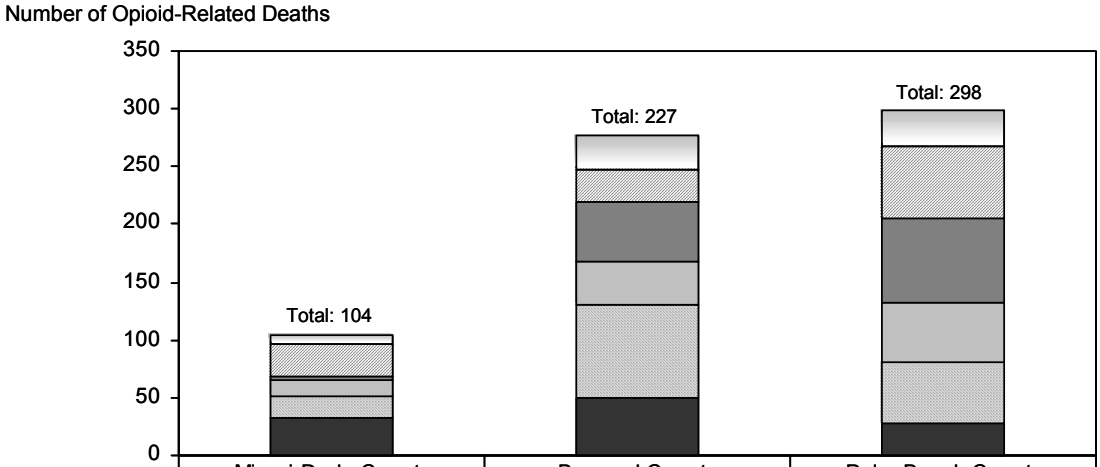
[1]Dots (…) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.
[2]Includes narcotic analgesics/combinations not otherwise specified.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 3. Reported High School Student Drug Use Rates: 2003



SOURCE: Youth Risk Behavior Survey

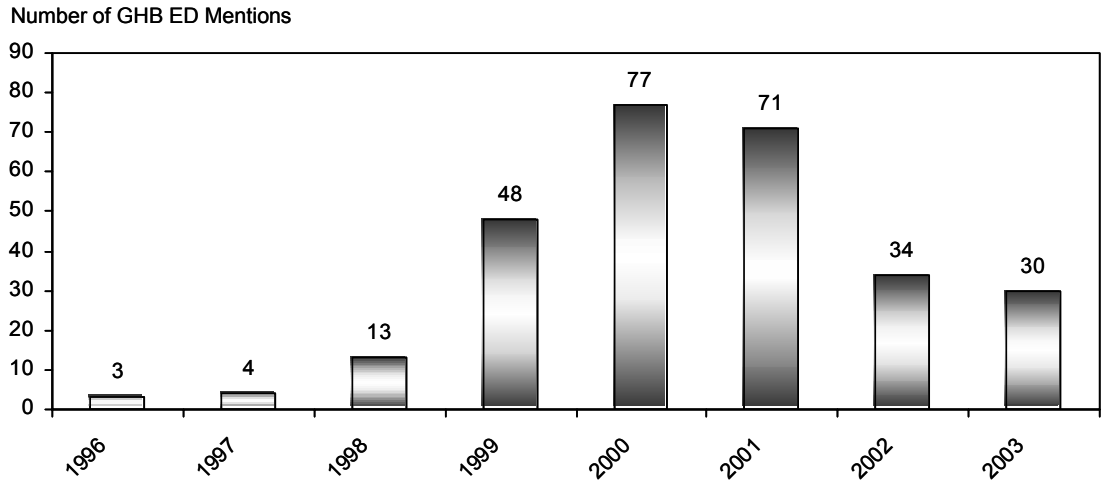
Exhibit 4. Opioid-Related Deaths in South Florida, by Drug and County: 2003



	Miami-Dade County	Broward County	Palm Beach County
Propoxyphene	8	29	31
Morphine	27	29	61
Methadone	3	51	73
Hydrocodone	15	38	52
Oxycodone	19	81	53
Heroin	32	49	28

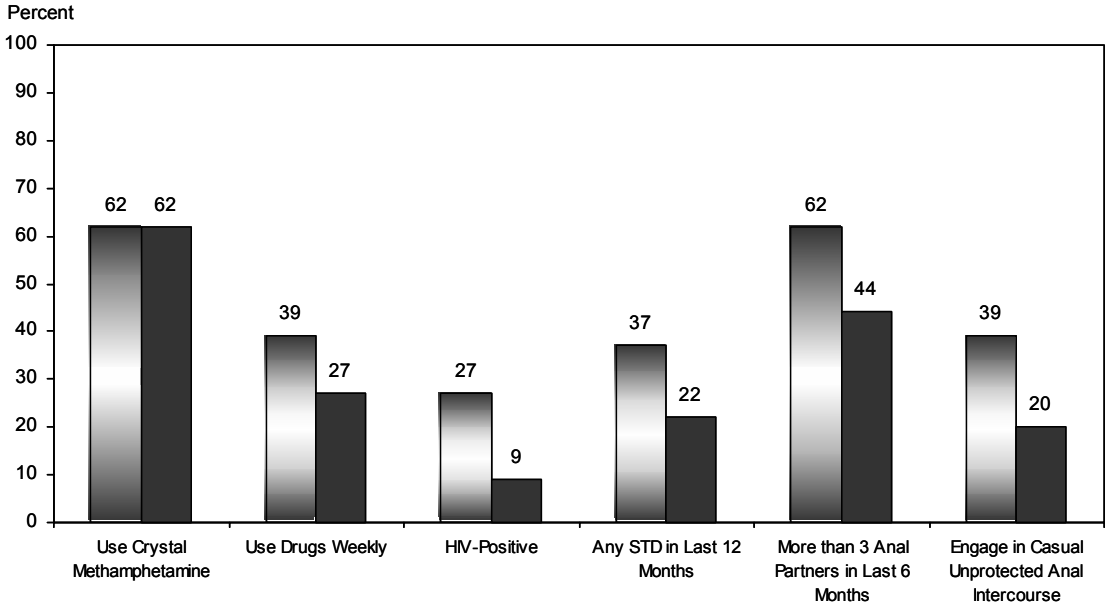
SOURCE: Florida Medical Examiner's Commission

Exhibit 5. GHB ED Mentions at the Broward General Medical Center: 1996–2003



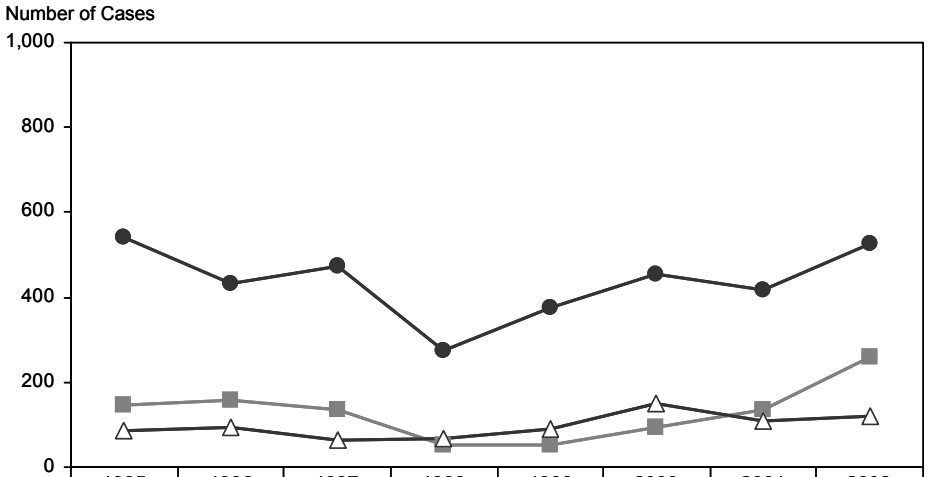
SOURCE: Broward General Medical Center

Exhibit 6. Characteristics of MSMs[1] Attending a Miami Circuit Part, by Residence: 2003



[1]N=237
SOURCE: Steven Kurtz, Ph.D., and Jason Weaver—University of Delaware, Center for Drug and Alcohol Studies

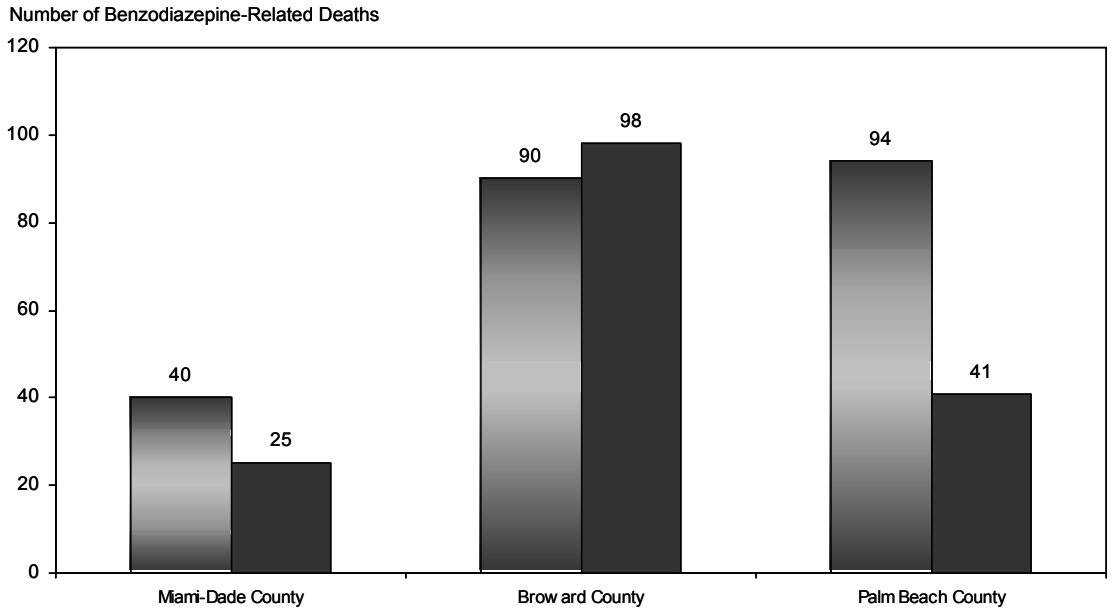
Exhibit 7. Early Syphilis Cases in South Florida, by County: 1995–2002



	1995	1996	1997	1998	1999	2000	2001	2002
Dade County	543	432	472	273	376	455	417	525
Broward County	148	159	136	54	51	95	136	260
Palm Beach County	85	95	64	67	90	152	108	121

SOURCE: Miami-Dade, Broward, and Palm Beach Counties Health Departments

Exhibit 8. Benzodiazepine-Related Deaths in South Florida: 2003



SOURCE: Florida Medical Examiners' Commission

Drug Abuse Trends in Minneapolis/St. Paul

Carol Falkowski[1]

ABSTRACT

The consequences of cocaine abuse and addiction remained apparent in the Minneapolis/St. Paul metropolitan area throughout 2003, as overdose deaths increased from 34 to 44 in Hennepin County. Heroin-related indicators continued at heightened levels. Opiate-related deaths outnumbered those for cocaine in both Hennepin and Ramsey Counties, a situation fueled by high-purity, low-cost heroin and the continuing abuse of prescription narcotic analgesics. Methamphetamine abuse took hold among a younger population in 2003. Most high school-based drug counselors reported the rapidly rising abuse of methamphetamine, particularly among girls attracted by the promise of heightened energy and significant, rapid weight loss. The most notable new trends in hallucinogen abuse among adolescents and young adults were the use of Salvia Divinorum, an unregulated type of sage plant sold on the Internet and in "head shops" as incense, and over-the-counter cough and cold products that contain dextromethorphan.

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 lives 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. Illicit drugs are sold and distributed within Minnesota by Mexican drug trafficking organizations, street gangs, independent entrepreneurs, and other criminal groups.

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 size of the Hmong population was recently estimated at 66,000, making the Twin Cities home to the largest Hmong population of any U.S. city.

Data Sources

Data for this report were drawn from the following sources:

- **Mortality data** on drug-related deaths are from the Hennepin County Medical Examiner and the Ramsey County Medical Examiner (through March 2004). Hennepin County cases include those in which drug toxicity was the immediate cause of death and those in which the recent use of a drug was listed as a significant condition contributing to the death. Ramsey County cases include those in which drug toxicity was the immediate cause of death and those in which drugs were present at the time of death.

- **Hospital emergency department (ED) data** on drug mentions are 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, and a single drug abuse-related ED episode can involve the "mention" of up to four drugs and alcohol-used-in-combination. Data run through 2002 and will not be available in 2003 due to a major system redesign.

- **Addiction treatment data** are from addiction treatment programs (residential, outpatient, ex-

[1]The author is affiliated with the Hazelden Foundation, Center City, Minnesota.

tended care) in the five-county metropolitan area as reported on the Drug and Alcohol Abuse Normative Evaluation System (DAANES) of the Minnesota Department of Human Services from 1993 through 2003.

- **Poison center data** are from the Hennepin Regional Poison Center, Toxic Exposure Surveillance System (TESS).

- **Drug testing data** on drug abuse among adult males arrested in Hennepin County are from the Arrestee Drug Abuse Monitoring (ADAM) program of the National Institute of Justice (NIJ), U.S. Department of Justice, which was terminated nationwide in early 2004. The Council on Crime and Justice administered ADAM in Minneapolis and interviewed a sample of 677 adult male arrestees in 2003.

- **Law enforcement data** and information are from various county, city, State, and Federal agencies.

- **Crime lab data** on seizures and purity level are from the Minneapolis Department of Health and Family Support, the Minnesota Bureau of Criminal Apprehension through 2003.

- **Acquired immunodeficiency syndrome (AIDS) data** for 2003 are from the Minnesota Department of Health.

- **Additional information** is from interviews with program staff of treatment programs, poison control specialists, narcotics agents, and school-based drug and alcohol specialists conducted in May 2004.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Accidental overdose deaths involving cocaine increased from 2002 to 2003 in Hennepin County (from 34 to 44) and remained stable in Ramsey County, as shown in exhibit 1. The ED data reflected upward trends (see exhibit 2), although the most recent year for which data were available was 2002.

Admissions to addiction treatment programs with cocaine as the primary substance problem declined very slightly in recent years (see exhibit 3). In 2003, for example, 13.3 percent of treatment admissions reported cocaine as the primary substance problem, compared with 14.8 percent in 1998. Most cocaine admissions in 2003 were for crack cocaine, one-third were women, and 48.8 percent were African-American. The average age of first crack use was 25.6 years. More than 4 out of 5 patients (81.3 percent) had prior treatment episodes (exhibit 4).

Most (88 percent) patients receiving treatment for cocaine were age 25 or older (exhibit 4), with 63.7 percent older than 35. Indeed, among patients age 35 and older, 19.9 percent reported cocaine as the primary substance problem (exhibit 5). Very few young people in treatment reported cocaine as the primary substance problem.

Among males arrested in Minneapolis in 2003, 28.4 percent tested positive for cocaine, compared with 30.8 percent in 2002 (exhibit 6). Nationwide, the presence of cocaine among adult male arrestees ranged from a high of 50.6 percent in Chicago and 49.8 percent in Atlanta, to a low of 2.6 percent in Woodbury, Iowa, near Sioux City (exhibit 7). The median across all cities was 30.1 percent.

Gangs continued to play a considerable role in the street-level, retail distribution of crack cocaine. Cocaine prices varied, but the drug generally sold for $100 per gram, $200 per "eightball" (one-eighth ounce), $700–$800 per ounce, and up to $22,000 per kilogram. The price of a rock of crack was $10–$20.

Heroin

Heroin-related indicators continued at heightened levels in 2003. Opiate-related deaths, mostly accidental heroin overdoses, outnumbered cocaine-related deaths in 2003, but they declined slightly in Hennepin County (from 59 to 50) and in Ramsey County (from 18 to 19) (exhibit 1). Hospital ED mentions of heroin nearly doubled from 2000 to 2002 (exhibit 2).

As with cocaine, patients in treatment for heroin tended to be older; 77.7 percent were older than 25, and 54.7 percent were older than 35 in 2003 (exhibit 4). Four percent of patients age 18–25 reported heroin as the primary substance problem.

Among patients receiving treatment for heroin addiction, Whites accounted for 51.8 percent and African-Americans represented 42.9 percent. Just over one-quarter (27.1 percent) were women. The most common route of administration was injection (53.6 percent), followed by sniffing (41.9 percent) and smoking, also known as "foiling" (4.5 percent). The average age of first heroin use was 22.4. Most heroin admissions (86.8 percent) reported prior treatment episodes.

Five methadone maintenance programs served roughly 1,500 clients in the metropolitan area. While patients who were newly enrolled in some of these programs may be reflected in the treatment data, the private for-profit programs do not report to the Drug and Alcohol Abuse Normative Evaluation System.

Among adult males arrested in Minneapolis in 2003, 5.8 percent tested positive for opiates, up slightly from 5.1 percent in 2002 (exhibit 6). Nationwide, the presence of opiates among adult male arrestees ranged from a high of 28.4 in Rio Arriba, New Mexico, and 24.9 percent in Chicago, to a low of 1.6 percent in Woodbury, Iowa (exhibit 8). The median across all cities was 5.8 percent.

Heroin seized by law enforcement officers included white, off-white, or tan powder, in addition to dark-colored Mexican "black tar" heroin. Four Nigerians were apprehended in April 2004 at the Minneapolis/St. Paul International Airport on a flight from Amsterdam carrying suitcases filled with 25 pounds of heroin valued at $25 million. Retail and mid-level heroin prices remained at record low levels, at $20–$40 per dosage unit or "paper," $300–$400 per gram, and $900–$2,000 per ounce. Purity levels were variable in 2003, with fewer samples of extremely high potency than in 2002.

Other Opiates/Narcotics

Prescription narcotic analgesics, used medically in the treatment of pain, are increasingly used nonmedically as drugs of abuse for the heroin-like high they produce. 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 2). 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, Percocet (oxycodone combined with aspirin or acetaminophen), and the long-acting OxyContin. Law enforcement seizures of oxycodone increased as well.

One local middle school reported several incidents of students bringing handfuls of prescription medications, including narcotic analgesics and benzodiazepines, to school to share with friends.

An estimated 2–5 percent of the Minnesota's Hmong immigrant population regularly smoke opium. Packages concealing opium continued to be shipped from Asia to residents of the Twin Cities.

Marijuana

Marijuana indicators continued upward trends that began in the early 1990s. In 2002, however, marijuana ED mentions stabilized, after rising from almost 600 to 1,200 from 1999 to 2001 (exhibit 2). When marijuana is identified as the sole drug in a hospital ED situation, patients typically present with symptoms of a panic or anxiety attack.

As in past years, marijuana precipitated more admissions into addiction treatment programs than any other illicit drug in the Twin Cities in 2003 (exhibit 3). Overall, one out of five (22.8 percent) people entering addiction treatment programs reported marijuana as the primary substance problem, compared with only 8 percent in 1991. Most (77.3 percent) were males, and 68.3 percent were White (exhibit 4). For many, it was the first treatment experience (44.2 percent), which can reflect a relatively short abuse history. The average age of first marijuana use was 13.7 years.

Marijuana was overwhelmingly the primary drug among adolescents and young adults in treatment. Among treatment admissions younger than 18, a whopping 73.2 percent reported marijuana as the primary substance problem, and among youth age 18–25, 34.8 percent reported a primary marijuana abuse problem (exhibit 5). In contrast, among patients age 26–34, 14.6 percent reported marijuana as the primary substance problem, and among patients 35 and older, only 4.5 percent reported such abuse.

In 2003 in Minneapolis, 48.3 percent of adult male arrestees tested positive for marijuana (exhibit 6). Nationwide, the proportions of adult male arrestees testing positive for marijuana ranged from a high of 54.9 percent in Oklahoma City, to a low of 30.9 percent in Honolulu and 31.9 percent in Salt Lake City (exhibit 9). The median across all cities was 44.1 percent.

Marijuana, readily available according to multiple sources, sold for $5 per joint and could be purchased by any metropolitan-area middle school student. 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 was increasingly available and sold for $100 per quarter ounce and up to $600 per ounce.

Marijuana joints that are dipped in formaldehyde, which is often mixed with phencyclidine (PCP), are known as "wets," "wet sticks," "water," or "wet dad-

dies." Marijuana joints containing crack cocaine are known as "primos."

Methamphetamine and Other Stimulants

In addition to cocaine, methamphetamine, also known as "meth," "crystal," or "crank," and amphetamine, known as "speed" or "crank," are major stimulants of abuse. Prolonged abuse can rapidly result in addiction, accompanied by long periods of sleep and food deprivation and pronounced paranoid delusions.

From 2002 to 2003, accidental deaths related to methamphetamine abuse grew from 3 to 10 in Ramsey County and from 11 to 15 in Hennepin County (exhibit 1). ED episodes involving methamphetamine increased steadily over the past few years (exhibit 2).

The growth of clandestine, makeshift methamphetamine labs in the State increased, with 301 dismantled with the assistance of the Drug Enforcement Administration in 2003, compared with 272 in 2002. Roughly two-thirds were in non-urban areas. The bulk of methamphetamine consumed in the State is still imported from Mexico, however.

Patients addicted to methamphetamine now account for 7.5 percent of total treatment admissions (exhibit 4), compared with 2.9 percent in 1998, and less than 1 percent in 1991. Women accounted for 38.4 percent, the highest percentage within any drug category. Almost all were White (92.6 percent), and the average age of first use was 19.8. Two-thirds had prior treatment episodes.

Methamphetamine abuse took hold among a younger population in 2003. Almost all onsite, school-based drug abuse counselors reported growing problems related to methamphetamine abuse by students attending metropolitan area high schools. Smoking was the most common route of first methamphetamine use, and some moved on to injection. The appetite suppressant effects, in particular, attracted young girls. Some adolescent girls entering treatment had no prior drug or alcohol abuse history other than methamphetamine, which they initially tried due to the promise of significant and rapid weight loss.

More than one-half (53.6 percent) of those receiving treatment for methamphetamine were age 25 or younger, and a record high 17.8 percent were younger than 18 (exhibit 4). Among patients younger than 18 in 2003, 8.8 percent reported primary methamphetamine abuse, and among those age 18–25, 13.6 percent reported methamphetamine as the primary substance problem (exhibit 5), the highest of any age group. In contrast, only 3.6 percent of patients age 35 and older reported methamphetamines as the primary substance problem. Among treatment admissions, smoking was the most common route of administration (53.6 percent), followed by sniffing (26.5 percent) and injection (13.8 percent).

Adolescent users described the open scabs and unsightly skin lesions due to the abuse of methamphetamine as "lithium scabs," and better grade methamphetamine as "lithium," ranking in quality somewhere in between basic "crank" and top grade "ice" or "glass." Some youth also noted that they could spot exceptionally good methamphetamine "if it makes you cough blood." The use of light bulbs as pipes for smoking methamphetamine was commonplace, especially among youth.

The presence of methamphetamine among arrestees in Minneapolis remained low, having gradually increased in recent years. In 2003, 3.3 percent of adult male arrestees in Minneapolis tested positive for methamphetamine, compared with 0.8 percent in 1998 (exhibit 6). The two ADAM cities in neighboring Iowa had rates many times greater than in Minneapolis: Des Moines (27.9 percent) and Woodbury (14.3 percent) (exhibit 10). Nationwide the cities with the highest rates of methamphetamine-positive arrestees were Honolulu with 40.3 percent, followed by Phoenix (38.3 percent), and Sacramento (37.6 percent). At the other end of the spectrum, less than 1 percent of arrestees tested positive for methamphetamine in Albany, Anchorage, Boston, Charlotte, Cleveland, Miami, New York City, Philadelphia, and Washington, DC. The median across all cities was 4.7 percent.

Seizures of methamphetamine by law enforcement continued upward trends. Cases handled by the State crime lab, for example, grew from 289 in 1996 to 2,160 in 2003. Minneapolis data indicate increased purity levels of methamphetamine as well, with an average weight-based purity of 13.8 percent in 2001, compared with 26.9 percent in 2003, and 40.7 percent in 2004 (first quarter). Methamphetamine comes in the form of crystals, powder, or chunks that are white, off-white, tan, orange, reddish, greenish, or light purple-colored.

Methamphetamine prices were $90–$100 per gram, $200 for a "teener," (one-sixteenth ounce), $240–$280 for an "8-ball" (one-eighth ounce), $600–$800 per ounce, and up to $14,000 per pound. "Glass," or "ice," the high-purity form that is smoked, typically sold for twice as much.

The abuse of methylenedioxymethamphetamine (MDMA), known as "ecstasy," "X," or "e," by young

people continued and contributed to the death of a 21-year-old African-American male in Hennepin County in 2003. MDMA hospital ED mentions increased from 16 in 1999 to 77 in both 2001 and 2002. Effects include tactile sensitivity, hallucinations, and, at high doses, nausea, jaw clenching, hyperthermia, and muscle tension. The Hennepin Regional Poison Center received nine exposure-related calls in 2004 and six calls seeking information (through May 27).

Crime labs continued to confirm that some pills sold as "ecstasy" actually contained no MDMA, but rather a combination of other drugs, such as methamphetamine, ketamine, caffeine, 5-methoxy-N, N-diisopropyltryptamine (known as "5-MeO-DIPT" and "Foxy Methoxy") or methylenedioxyamphetamine (MDA), a chemical similar in effect to MDMA.

Khat, a plant that is chewed or brewed in tea for its stimulant effects in East Africa and the Middle East, remained within the Somali refugee community in the Twin Cities and Rochester, Minnesota. Its active ingredients, cathinone and catheine, are controlled substances in the United States.

Methylphenidate (Ritalin), a prescription drug used in the treatment of attention deficit hyperactive disorder, is also used nonmedically as a drug of abuse to increase alertness and suppress appetite by some adolescents and young adults. The pills are crushed and snorted or ingested orally. They sold for $5 per pill or were simply shared with fellow middle school or high school students at no cost; they are sometimes known as "hyper pills."

Hallucinogens

The most notable new trends in hallucinogen abuse are the increasingly prevalent abuse of Salvia Divinorum (by young adults and some high school-aged teens) and over-the-counter cough and cold products that contain dextromethorphan.

A type of sage plant, Salvia Divinorum, also known as diviner's sage, can be smoked, chewed, or brewed in tea. Some high school students consume it at school by placing the leaves in their lunchtime beverages. Its abuse has been reported at the University of Minnesota and some metropolitan area high schools in recent months. When ingested, its effects include intense but short-lived hallucinations, out-of-body experiences, sensations of time travel or merging with inanimate objects, short-term memory loss, and unconsciousness. Unlike most other hallucinogens, the effects of Salvia Divinorum last for an hour or less. Not currently a controlled substance, it is being sold on the Internet and also in local "head shops" in very small, plastic, zip-lock bags. At one Minneapolis store, customers who purchase it are asked to sign a written form stating that it will be used only as incense. The Hennepin Regional Poison Center received one call about an exposure in 2003 and two calls seeking information in 2004 (through May 27). It has also appeared in Rochester, Minnesota.

Products that contain dextromethorphan, a cough suppressant common in most over-the-counter cough syrups, are ingested by adolescents in doses many times in excess of the recommended amount for the long-acting, hallucinogenic effects. Dextromethorphan (also known as "DXM") is also the active ingredient in some over-the-counter cold preparations in pill form, such as Coricidin HBP Cough and Cold (known as "Triple Cs"). People intoxicated on dextromethorphan experience profound hallucinations and altered time perception, slurred speech, sweating, uncoordinated movements, and high blood pressure. Recent growth in the abuse of these products by younger teenagers prompted many pharmacies, discount stores, and grocery stores to place these products behind the counter to prevent shoplifting. Being under the influence of these products is known as "Robo-tripping" or "Skittle-ing."

Lysergic acid diethylamide (LSD or "acid") is a strong, synthetically produced hallucinogen, typically sold as saturated, tiny pieces of paper known as "blotter acid," for $5–$10 per dosage unit. Hospital ED episodes of LSD declined significantly from 58 in 2000 to 13 in 2002, perhaps because of the growing popularity of MDMA and other substances that also produce hallucinogenic effects.

Ketamine, also known as "Special K," "Vitamin K," or "cat-killer," is a veterinary anesthetic. It first appeared as a drug of abuse among young people in Minnesota in 1997, but it rarely appears in ED data. 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 that produces hallucinations and extremely agitated, aggressive behavior. Also in 2003, some clear capsules filled with white powder that lab analysis identified as the substance known as "5-MeO-DIPT" and "Foxy Methoxy" were seized by law enforcement.

Phencyclidine (PCP), a dissociative anesthetic, is most often used in combination with marijuana, but it can also be injected or snorted. ED mentions of PCP increased from 24 in 2001 to 85 in 2002. 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. Marijuana joints dipped in formaldehyde that is often mixed with PCP are known as "wets," "amp," "wet sticks," or "wet daddies," and are easily distinguished by their strong, pungent, unpleasant chemical odor. The effects are much more stimulant-like than those of marijuana alone.

Sedative/Hypnotics

Gamma hydroxybutyrate (GHB), known as "G," "Gamma," "Liquid E," or "Liquid X," is a concentrated liquid abused for its stupor-like, depressant effects. It is also used as a predatory knock-out, 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 2002.

Other Drugs

Alcohol remained the most widely used mood-altering substance. Overall, one-half of all admissions to addiction treatment programs were attributable to alcohol (exhibit 3). Among this group, 27.8 percent were women, 78.8 percent were White, and 70.9 percent had prior treatment experience. The average age of first intoxication was 15.6 years.

More than 80 percent of alcohol-related treatment admissions were age 26 and older, with 62 percent age 35 or older. Among patients younger than 18, only 12.5 percent reported alcohol as the primary substance of abuse (exhibit 5). In contrast, for patients age 26–34, 50.8 percent reported alcohol as the primary substance problem, and among patients age 35 and older, the proportion was 66 percent.

Daily tobacco use remained widespread among patients in addiction treatment programs (exhibit 3). Adolescents who smoke tobacco are many times more likely to use alcohol and other drugs than adolescents who do not use tobacco.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Most AIDS cases in Minnesota were in the Minneapolis/St. Paul area. Of the 1,642 people living with AIDS in Minnesota in 2003, the exposure categories were as follows: men who have sex with men (54 percent); injection drug use (8 percent); men who have sex with men and injection drug use (5 percent); heterosexual contact (12 percent); perinatal/ other (2 percent); unspecified (8 percent); and no interview (11 percent).

The level of hepatitis C virus (HCV), a blood-borne liver disease, among injection drug abusers remained high, with estimated rates as high as 90 percent among patients in methadone treatment programs.

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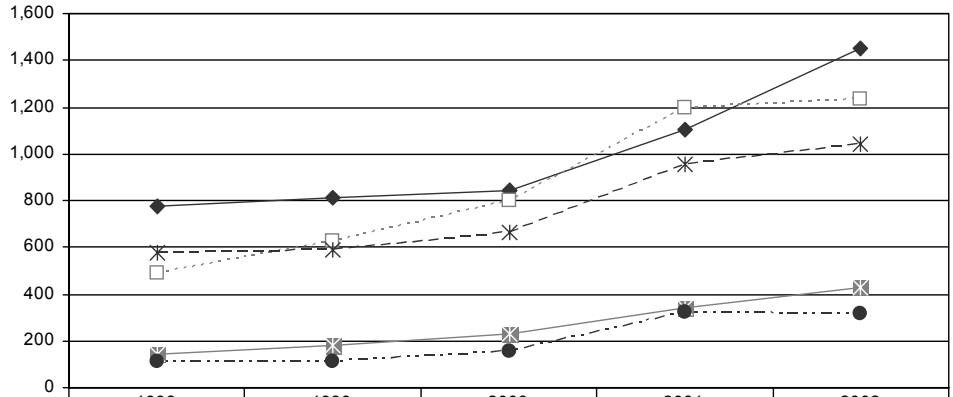
Exhibit 1. Drug-Related Deaths[1] in Hennepin County and Ramsey County: 2000–2003

Location and Drug	2000	2001	2002	2003
Hennepin County				
Cocaine	43	37	34	44
Opiates	41	58	59	50
Methamphetamine	6 (includes 3 MDMA)	8 (includes 1 MDMA)	11 (includes 3 MDMA)	15 (includes 1 MDMA)
Ramsey County				
Cocaine	17	11	11	10
Opiates	17	19	18	19
Methamphetamine	11 (includes 3 MDMA)	2	3	10

[1]Hennepin County figures include cases in which drug toxicity was the immediate cause of death and those in which recent drug use was listed as a significant condition contributing to the death. Ramsey County cases include those in which drug toxicity was the immediate cause of death and those in which drugs were present in the decedent at the time of death.
SOURCES: Hennepin County Medical Examiner and Ramsey County Medical Examiner

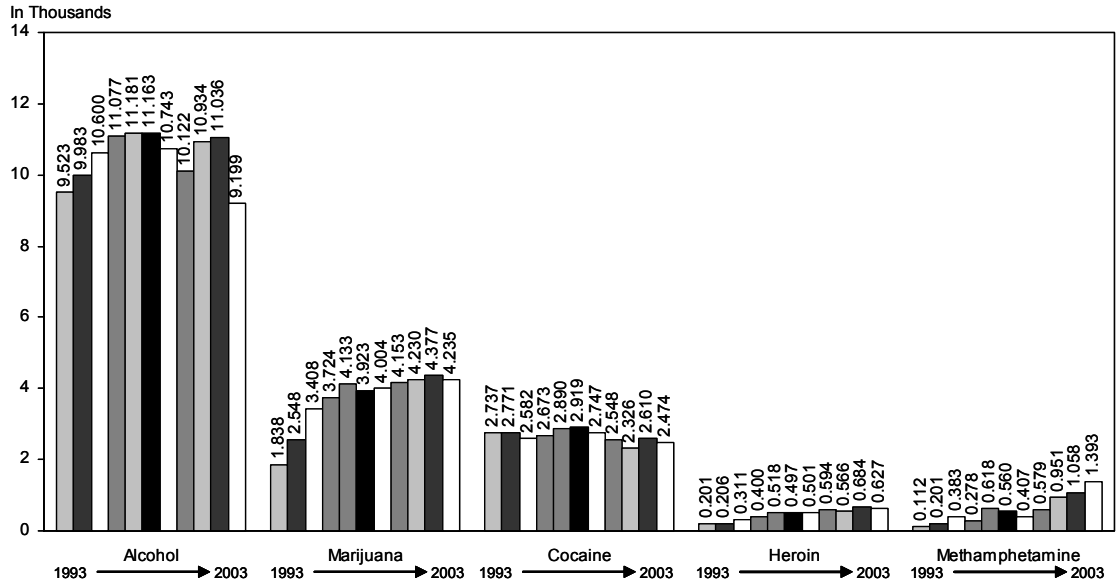
Exhibit 2. Hospital ED Mentions of Selected Drug Categories in the Minneapolis/St. Paul Metropolitan Area: 1998–2002



	1998	1999	2000	2001	2002
Cocaine	775	814	841	1,105	1,454
Marijuana	490	625	803	1,200	1,233
Rx Narcotics	579	588	664	953	1,040
Heroin	145	182	228	338	426
Methamphetamine	109	112	153	321	319

SOURCE: DAWN, OAS, SAMHSA

Exhibit 3. Admissions to Addiction Treatment Programs by Primary Substance Problem in the Minneapolis/ St. Paul Metropolitan Area: 1993–2003



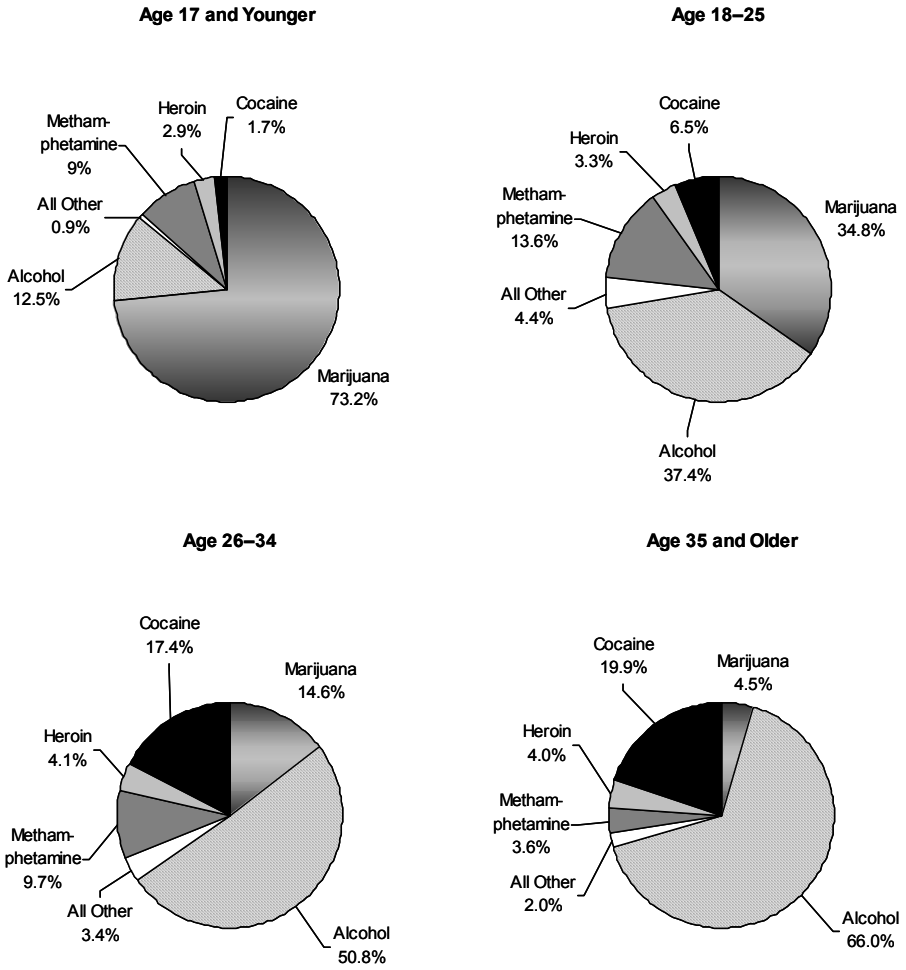
SOURCE: Drug and Alcohol Abuse Normative Evaluation System (DAANES), Minnesota Department of Human Services

Exhibit 4. Characteristics of Persons Admitted to Addiction Treatment Programs by Primary Substance of Abuse in the Minneapolis/St. Paul Metropolitan Area, by Percent: 2003

Total Admissions (*N*=18,614)	**Alcohol (*n*=9,199) (49.4%)**	**Marijuana (*n*=4,235) (22.8%)**	**Cocaine (*n*=2,474) (13.3%)**	**Methamphetamine (*n*=1,393) (7.5%)**	**Heroin (*n*=627) (3.4%)**
Gender					
Male	72.2	77.3	66.5	61.6	72.1
Female	27.8	22.7	33.5	38.4	27.1
Race/Ethnicity					
White	78.8	68.3	41.9	92.6	51.8
African-American	12.2	20.1	48.8	1.3	42.9
Hispanic	4.3	5.2	5.6	3.0	2.8
American Indian	3.4	3.0	1.9	1.2	0.9
Asian	0.5	1.0	0.7	0.9	0.9
Age Group					
17 and younger	3.8	48.7	2.0	17.8	2.9
18–25	14.8	30.0	9.6	35.8	19.5
26–34	19.3	12.1	24.7	24.3	23.0
35 and older	62.0	9.2	63.7	22.1	54.7
Route of Administration					
Smoking					
Sniffing			82.9	53.6	4.5
Injection			15.9	26.5	41.9
Other			1.2	13.8 (oral) 6.2	53.6
Secondary Drugs	Marijuana: 56.4 Cocaine: 29.9	Alcohol: 72.1 Cocaine: 10.7	Alcohol: 56.2 Marijuana: 26.8	Marijuana: 51.2 Alcohol: 30.3	Cocaine: 38/1 Alcohol: 29/5
Tertiary Drug	Cocaine: 35.3	Alcohol: 32.3	Marijuana: 43.3	Alcohol: 45.4	Alcohol and Marijuana: 31.1
First Treatment Episode	29.1	44.2	18.7	33.8	13.2
Average Age of First Use	(15.6)	(13.7)	(25.6)	(19.8)	(22.4)
Daily Nicotine Use	59.9	62.0	65.3	74.3	73.8

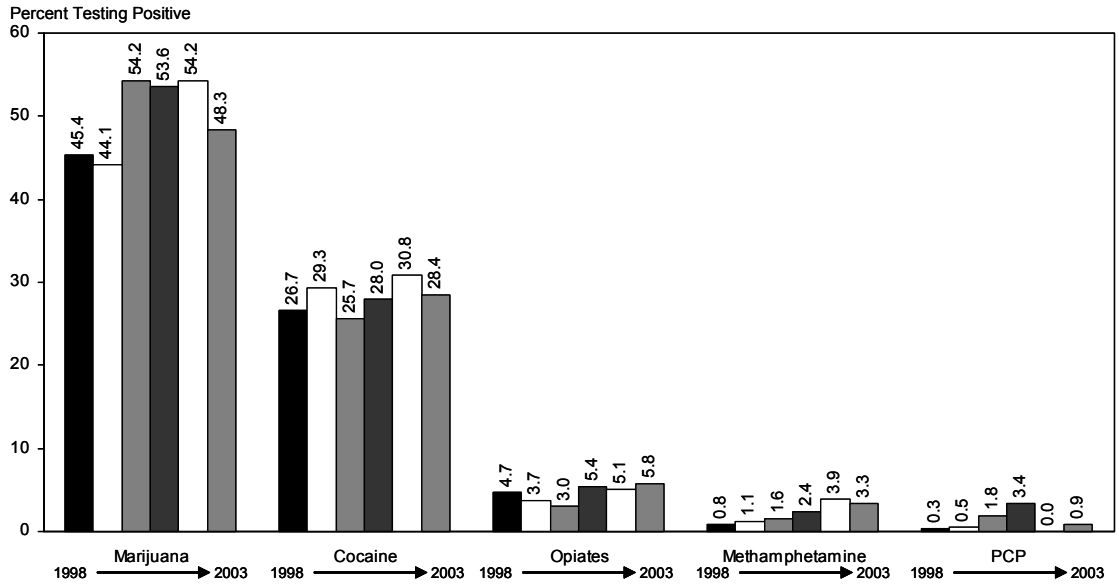
SOURCE: Drug and Alcohol Abuse Normative Evaluation System (DAANES), Minnesota Department of Human Services

Exhibit 5. Treatment Admissions by Primary Substance Problem by Age Group in Minneapolis/St. Paul Metropolitan Area: 2003



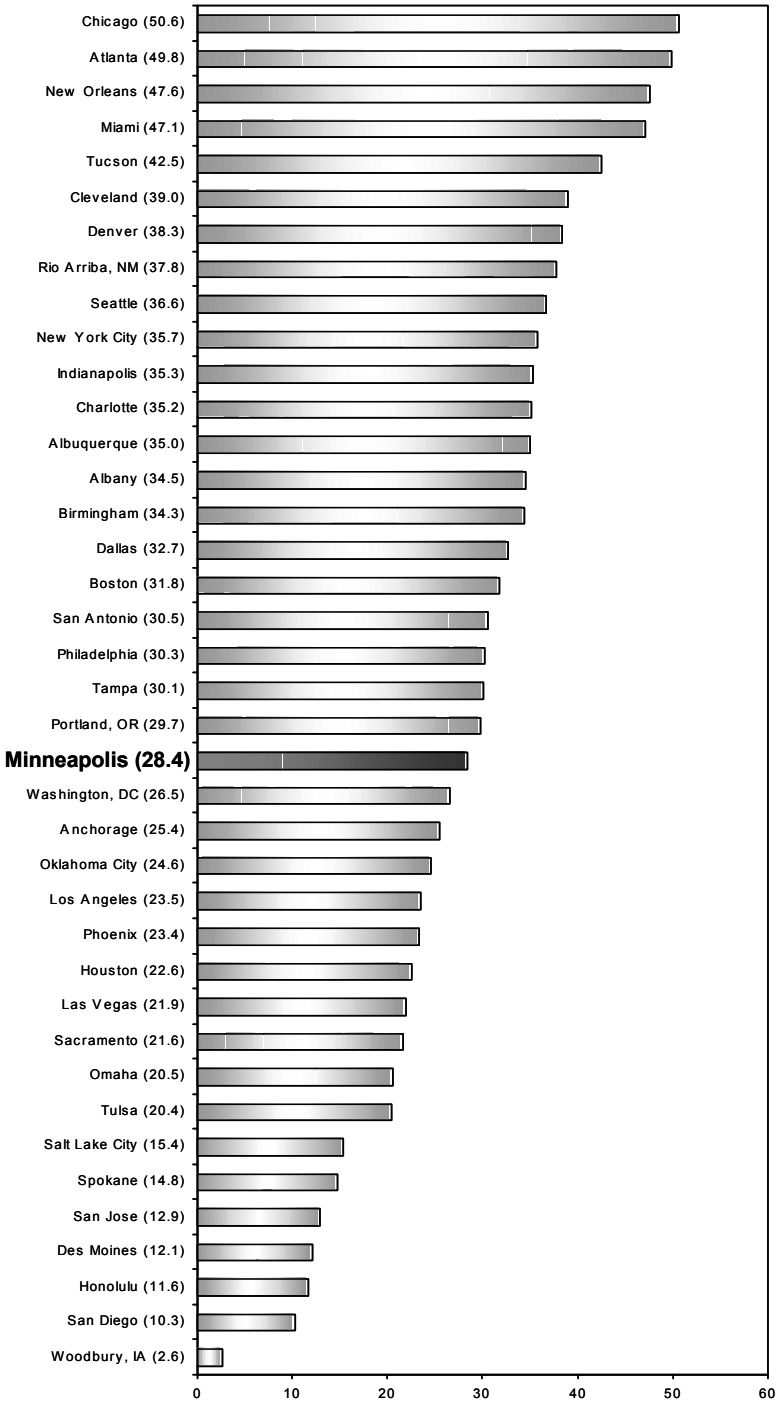
SOURCE: Drug and Alcohol Abuse Normative Evaluation System (DAANES), Minnesota Department of Human Services

Exhibit 6. Adult Male Arrestees Testing Positive for Drugs in Minneapolis, by Percent: 1998–2003[1]



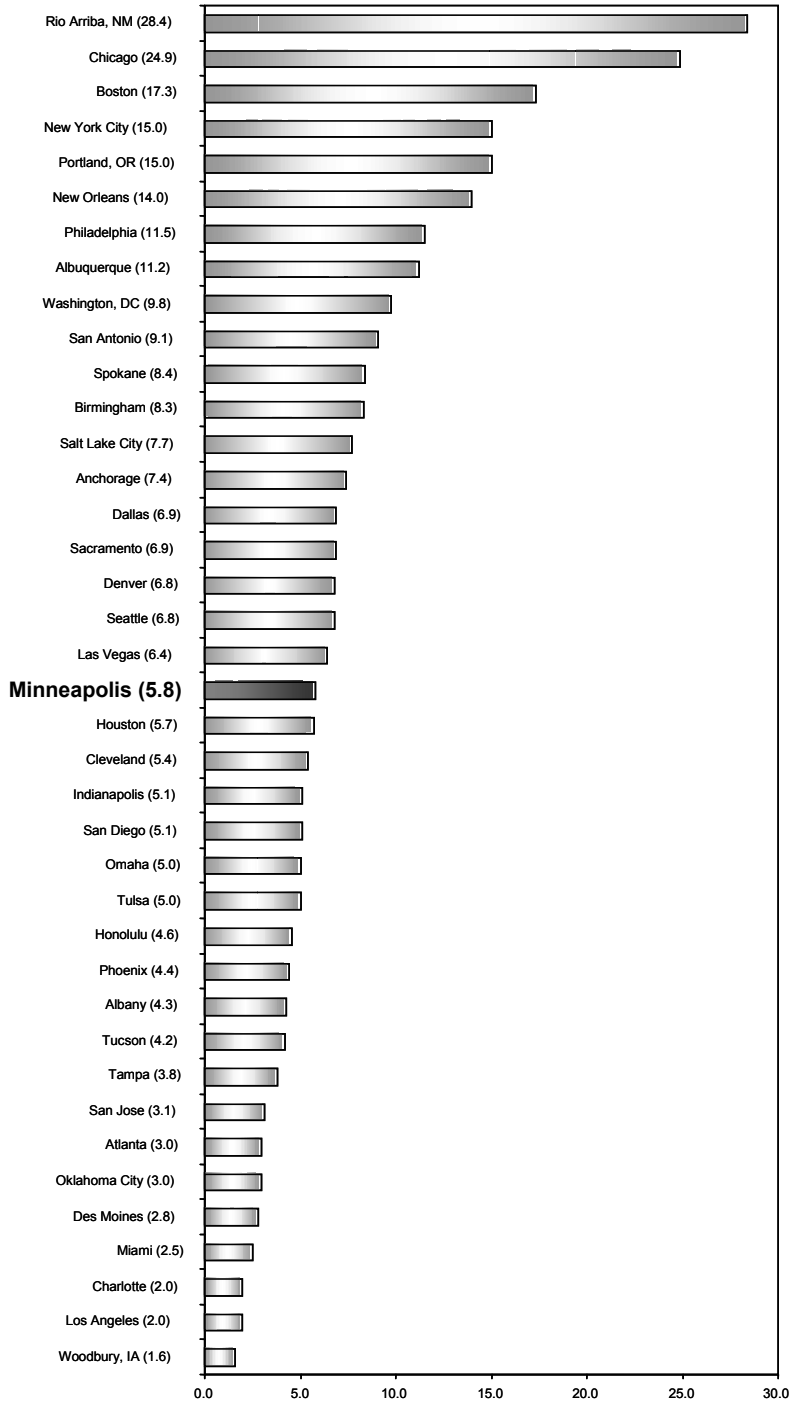
[1]2003 data are based on the results of urinalysis obtained from 677 adult male arrestees, with a mean age of 31.5.
SOURCE: ADAM, NIJ

Exhibit 7. Adult Male Arrestees Testing Positive for Cocaine in the United States, by Percent: 2003



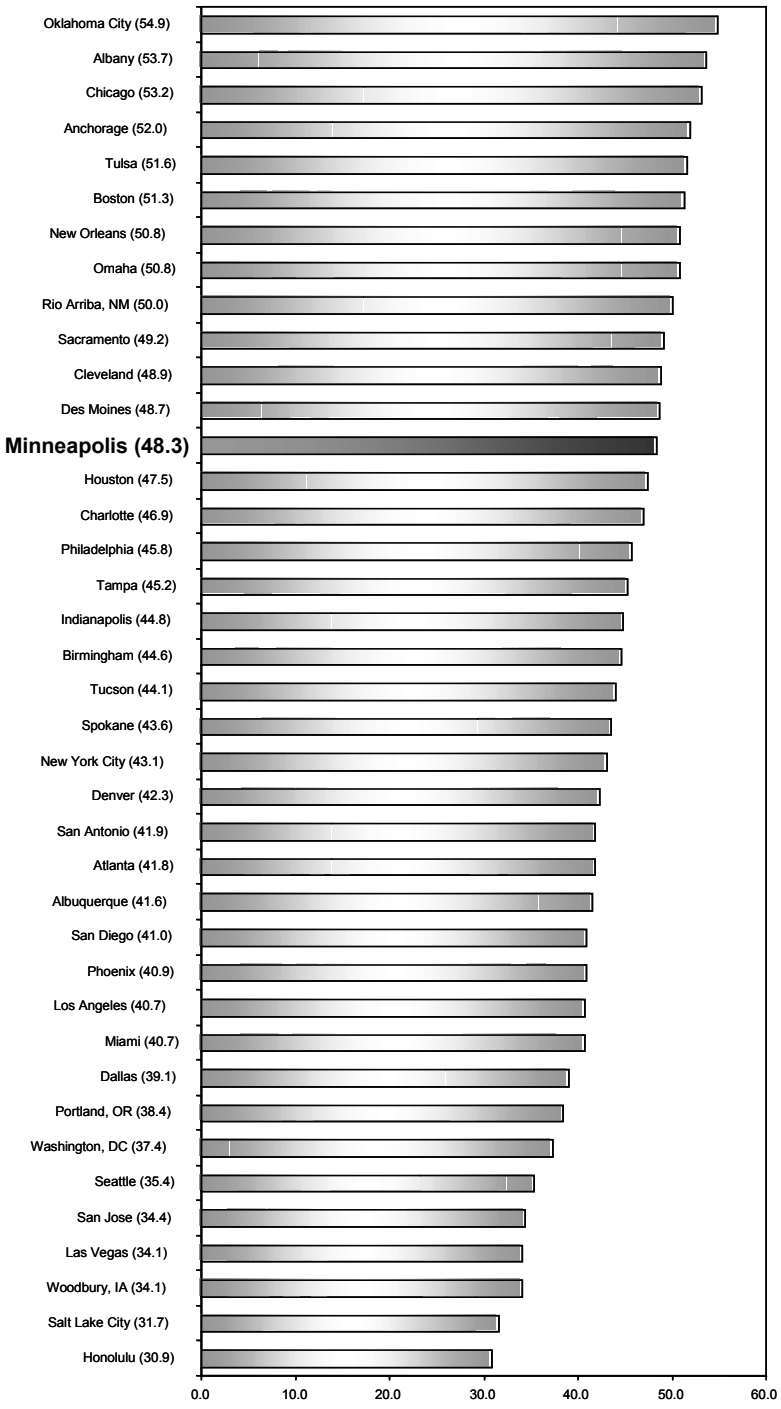
SOURCE: ADAM, NIJ

Exhibit 8. Adult Male Arrestees Testing Positive for Opiates in the United States, by Percent: 2003



SOURCE: ADAM, NIJ

Exhibit 9. Adult Male Arrestees Testing Positive for Marijuana in the United States, by Percent: 2003



SOURCE: ADAM, NIJ

Drug Abuse in the Newark Primary Metropolitan Statistical Area

Anna Kline, Ph.D.[1]

ABSTRACT

Heroin indicators remained high in Newark City, the Newark PMSA, and the State. Excluding alcohol admissions in 2003, primary heroin admissions accounted for 85.4 percent of admissions in the city and more than three-quarters of those in the PMSA (77.1 percent). 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 61.3 percent in 2003. While this is down substantially from 70.5 percent pure in 2002, it still represented the highest purity of all cities surveyed. Heroin injection among treatment admissions age 18–25 has continued to increase, reaching 58.6 percent in the Newark PMSA and 59.8 percent statewide in 2003. 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. Most of the increase in marijuana, amphetamine, and PCP mentions occurred in people younger than 26. Between January and December 2003, cocaine accounted for 48.3 percent of items analyzed by NFLIS, followed by heroin (31.3 percent) and marijuana (13.3 percent).

INTRODUCTION

Area Description

The Newark primary metropolitan statistical area (PMSA) consists of five counties (Essex, Morris, Sussex, Union, and 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 racial/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 younger than 18 live below the poverty level. For counties within the PMSA, the poverty status for families with children younger than 18 is 18 percent in Essex, 3 percent in Morris, 4 percent in Sussex, 9 percent in Union, and 5 percent in Warren. These social, demographic, and economic variations suggest substantial differences in drug use behaviors of residents by county.

Illicit drugs continue to flow through the State. Since September 11, 2001, however, the institution of random vehicle searches on bridges and tunnels going into New York City has led to a new trend in which Drug Trafficking Organizations (DTOs) establish stash houses in suburban communities to avoid entering New York. As a result, DTOs have started renting and/or buying residences in towns where stash houses and even heroin mills would not be suspected.

New Jersey has one of the highest concentrations of pharmaceutical and biochemical manufacturing firms in the country. According to the Drug Enforcement Administration (DEA), the most prevalent sources of diverted pharmaceutical drugs in New Jersey include doctor shopping, prescription forgery, and organized prescription rings. The forging of prescriptions is a continuing problem among employees in the medical field who use their positions to gain access to blank prescription pads. The most commonly diverted pharmaceuticals are the benzodiazepines and opiates, especially the hydrocodone products, with Percocet, Percodan, Xanax, Dilaudid, Valium, and Vicodin representing the most common brand name drugs diverted. The DEA is also reporting an increase in the diversion of

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OxyContin, both in Newark and in South Jersey, where it has become a particular problem among teenagers and young adults. According to the DEA agent in Newark, OxyContin and hydrocodone products are often used as gateway drugs to heroin use.

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).

Data Sources

This report uses data from various sources, as indicated below:

- **Drug treatment data** were obtained from the New Jersey Substance Abuse Monitoring System (NJSAMS) and the Alcohol and Drug Abuse Data System (ADADS), statewide, episode-based data systems operated by the Division of Addiction Services of the Department of Human Services. The data for 2003 include profiles by primary drug of abuse in Newark City, the Newark PMSA, and statewide programs. In addition, the Treatment Episode Data Set (TEDS), Office of Applied Studies (OAS), was used to depict demographic characteristics of statewide admissions. Also, data from ADADS and NJSAMS dating from 1992 to 2003 and TEDS data from 1995 to 2002 are used to study historical trends in drug use 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 January through December 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, 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 2003, primary cocaine/crack treatment admissions accounted for 6.1 percent of all admissions in Newark City (the same proportion as in 2002) and for 6.6 percent of admissions for illicit drugs (i.e., excluding alcohol, a marginal decrease from 2002) (exhibits 1 and 2). Nearly three-quarters of the cocaine admissions in 2003 were for abuse of crack cocaine.

In the Newark PMSA, the proportion of primary crack/cocaine admissions (excluding alcohol) was somewhat higher than in the city—9.8 percent in 2003, up slightly from 9.4 percent in 2002. The proportion of cocaine/crack admissions among all admissions was higher in the PMSA as well: 7.6 percent in 2002 and 7.8 percent in 2003. In 2003, crack accounted for 62.3 percent of the cocaine admissions in the PMSA, down slightly from 2002.

The proportion of primary cocaine/crack admissions statewide increased from 13.4 percent in 2002 to 15.6 percent in 2003. In 2003, the proportion of statewide primary cocaine/crack admissions was more than double that reported in Newark City and almost 6 percentage points higher than in the PMSA (exhibit 1). Admissions for crack abuse accounted for more

than two-thirds of the primary cocaine admissions statewide. TEDS data for the State for the first half of 2003 show crack admissions were somewhat more likely to be Black than White (50 vs. 47 percent) and male rather than female (59.8 vs. 40.1 percent). Admissions for primary abuse of powder cocaine, however, were substantially more likely to be White than Black (70.6 vs. 25.6 percent) and male rather than female (71.9 vs. 27.9 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). In contrast to the marginal increase in cocaine ED and treatment admission mentions, cocaine/crack-related deaths decreased from 148 in 2001 to 127 in 2002.

Between January and December 2003, cocaine/crack accounted for 48.3 percent of the 3,809 items analyzed by NFLIS, the highest proportion for any drug (exhibit 5).

Between July and December 2003, the retail price for powder cocaine in Newark was $30–$100 per gram; crack sold for $23–$80 per gram.

Heroin

As a proportion of illicit drug treatment admissions, primary heroin accounted for 85.4 percent in Newark City in 2003, which was stable from 2002 (exhibits 1 and 2). In the Newark PMSA, primary heroin admissions accounted for 77.1 percent of illicit drug admissions in 2003, slightly down from 78.3 percent in 2002, and for 61.1 percent of all treatment admissions (including alcohol).

Primary heroin admissions predominated across the State in 2003, accounting for 64.2 percent of all admissions for drugs other than alcohol (exhibit 1). This is down from 67 percent in 2002 (exhibit 2) and represents the first decrease in the proportion of primary heroin admissions statewide since 1996. TEDS data for the first half of 2003 indicate that, statewide, 53.8 percent of primary heroin admissions were White and 40.1 percent were Black. About 17.4 percent were Hispanic. Primary heroin users were also predominantly male (65.8 percent).

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 58.6 percent in 2003. Exhibit 7 shows a similar increase statewide—from 28.7 percent in 1992 to 59.8 percent in 2003. Since 1993, injection among clients age 26–34 has also risen moderately.

Analysis of injection trends among primary heroin users age 18–25 by regional type shows that the proportion injecting in the major cities (Newark, Camden, Trenton, Elizabeth, and Paterson) has also risen substantially since 1992. Historically, the suburbs and rural areas have exceeded the cities in the proportion of young heroin users injecting. In 1993, for example, 15.5 percent of young heroin users in the cities injected, compared with 40.3 percent and 52.7 percent of those in the suburbs and rural areas, respectively. By 2003, however, the cities were comparable to the suburban and rural areas in the proportion injecting, with 56.9 percent of young heroin users in the cities injecting, compared with 58.5 percent in the suburbs and 61.8 percent in the rural areas.

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 2003.

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 the changes were 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.)

Despite the prevalence of heroin injection among people age 18–25, trend data (1998–2002) show a steady decline in ED mentions in this age group, falling from 317 mentions in 1998 to 153 mentions in 2002.

Although heroin is the leading drug among treatment admissions and ED mentions in Newark, it accounted for only 31.3 percent of the 3,809 items analyzed by NFLIS between January and December 2003 (exhibit 5).

In 2002, there were 149 heroin death mentions, second only to narcotic analgesics in the number of mentions. The number of death mentions was down from 177 reported in 2001, however, and 179 reported in 2000. The slightly downward trend in death mentions in 2002 is consistent with recent patterns in both treatment and ED data.

Heroin purity is still very high, but it decreased somewhat in 2003 in the Newark PMSA. In 2001, heroin was 70.5 percent pure, and in 2002, it was 71.4 percent pure. In 2003, however, heroin purity dropped to 61.3 percent pure. The price per milligram pure of heroin in 2003 was $0.33, down from $0.39 in 2002. In 2003, despite the drop in heroin purity, the Newark PMSA had the highest heroin purity coupled with the lowest price of 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 2003, primary treatment admissions for "other opiates or synthetics" in Newark City totaled only 12 (0.2 percent of admissions, excluding alcohol admissions). The number was higher in the PMSA—189 (1.3 percent of the admissions, excluding alcohol). In 2002, figures for the city and PMSA, respectively, were 0.3 and 1.5 percent. In the State as a whole, primary admissions for other opiates totaled 1,049, or 2.7 percent of all admissions, excluding alcohol. This represents more than double the number of admissions reported in 1997 (513). The biggest increase in numbers of other opiate admissions occurred between 2000 (592) and 2002 (1,124). In 2003, admissions reporting other opiates as a primary, secondary, or tertiary drug of abuse numbered 2,303 and accounted for nearly 6 percent of all drug admissions statewide. In the TEDS data for the first half of 2003, 53.8 percent of the primary "other opiate" admissions were White and 40.1 percent were Black. Only 5.8 percent of primary other opiate admissions were Hispanic. About 62 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 2002, there were 151 ME death mentions for narcotic analgesic/combinations, representing the largest number of death mentions for any drug. Although the number of mentions was down from 190 in 2001, the number of mentions was more than twice that reported in 2000 (75) and more than three times the number in 1999 (44).

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 treatment admissions represented 6.4 percent of all treatment admissions in Newark City in 2003, compared with 7.9 percent in the Newark PMSA and 11 percent in the State as a whole. As a proportion of illicit drug treatment admissions, marijuana accounted for 7.0 percent in Newark City and 10.0 percent in the Newark PMSA (exhibit 1) in 2003, both only marginally higher than in 2002 (exhibit 2).

Statewide primary marijuana admissions (excluding alcohol) were more than twice the proportion of those in Newark City (15.2 vs. 7.0 percent) and more than 5 percentage points higher than those in the Newark PMSA (exhibit 1). Statewide TEDS data for the first half of 2003 indicate that 82.4 percent of primary marijuana admissions were male, 54.3 percent were White, and 40.7 percent were Black. About 18 percent of primary marijuana admissions statewide were Hispanic. Across the State, approximately 50 percent of primary marijuana admissions were younger than 21, and about 72 percent were younger than 26.

The rate of marijuana ED mentions rose significantly since 2000, up from 29 per 100,000 population in 2000, to 37 in 2001, to 54 in 2002 (exhibit 4). The greatest increase in marijuana ED mentions occurred among patients age 18–25, with the rate in this age group increasing from 89 in 2000 to 168 in 2002. In

2002, nearly 79 percent represented multidrug episodes, and nearly one-half were younger than 26.

Among the 3,809 items analyzed by NFLIS between January and December 2003, marijuana accounted for 505 (13.3 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.

Between July and December 2003, locally produced marijuana sold in Newark for $5–$30 per bag.

Methamphetamine and Amphetamines

In 2003, only 29 primary amphetamine treatment admissions, including 16 primary methamphetamine 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, amphetamines were also rare in the State. Although the numbers of primary amphetamine admissions rose from 100 in 1999 to 138 in 2002, they fell to 112 in 2003. Fifty-five admissions in 2003 were for primary methamphetamine use. Statewide, a total of 362 admissions reported amphetamines as a primary, secondary, or tertiary drug of abuse in 2003.

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). Most of the increase in amphetamine mentions occurred among people younger than 26. Thus, between 1998 and 2002, the rate of mentions in 12–17-year-olds increased from 4 to 23, and in 18–25-year-olds, from 4 to 26.

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 the numbers of ED mentions of these two drugs since 1997 are graphically depicted in exhibit 10.

Treatment data for the Newark PMSA in 2003 also showed increases in use of benzodiazepines among treatment admissions, with their use as a primary, secondary, or tertiary drug accounting for 2.8 percent of treatment admissions, compared with 1.6 percent in 2001.

The 2002 DAWN mortality data show only 54 benzodiazepine mentions in the Newark PMSA. However, this represents an increase from 33 mentions in 2001 and 35 mentions in 2000. Benzodiazepines accounted for about 7.8 percent of all ME death mentions in 2002, up from 4.2 percent in 2001.

Other Drugs

Methylenedioxymethamphetamine (MDMA or Ecstasy)

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 occurred during 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)

There were 180 treatment admissions for primary PCP use in 2003, up from 135 in 2002. A total of 514 admissions, however, reported using PCP as a primary, secondary, or tertiary drug of abuse.

There was 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 occurred during multidrug episodes. Seventy percent were for patients who were male, and 64 percent were for patients age 18–25. Patients in the 18–25 year age group, moreover, exhibited the greatest increase in PCP mentions of all age groups, with the rate of mentions increasing from 8 per 100,000 in 2001 to 39 in 2002. More than 58 percent of admissions 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 12.2 percent between the first half of 2002 and 2003, while alcohol-in-combination admissions remained stable at 8.5 and 8.6 percent, respectively, during this 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

In 2002, New Jersey ranked fifth nationally in cumulative AIDS cases, third in cumulative pediatric AIDS cases, and eighth in cases reported in 2002. As of December 31, 2003, there were 62,752 cumulative HIV/AIDS cases reported in New Jersey, about 2,359 of which were reported in 2003. Of the cumulative cases, 24,859 (39.6 percent of the State total) were in the Newark PMSA, and 12,074 (19.2 percent of the State total) were in Newark City. A total of 61,504 cumulative HIV/AIDS cases statewide, and 11,792 in Newark City, were adults/adolescents age 13 or older.

Statewide, the proportion of HIV/AIDS cases involving injection drug use has declined substantially. Thus, approximately 42 percent of cumulative HIV/AIDS cases statewide involved injection drug use alone, compared to 18 percent of new cases in 2003. In Newark City, 50 percent of cumulative cases involved injection drug use alone (only cumulative transmission mode data are available for Newark).

There has been a slight increase in the proportion of cases linked to sexual transmission in New Jersey. Thus, 17 percent of cumulative cases versus 19 percent of new cases in 2003 involved heterosexual transmission, while 19 percent of cumulative cases and 20 percent of new cases involved men having sex with men (MSM). There has, however, also been a substantial increase in the proportion with "other or unknown" transmission mode (41 percent in 2003 vs. 17 percent cumulative).

In Newark City, 9 percent of cumulative cases involved MSM transmission, 20 percent involved heterosexual contact, and 18 percent involved "other or unknown" transmission. A larger proportion of females (34 percent of cumulative cases in Newark and 36 percent in the State) were infected through heterosexual contact than males (11 percent and 8 percent in Newark and the State, respectively).

About 2.3 percent of Newark cumulative HIV/AIDS cases in 2003 and 6.4 percent of cases statewide involved perinatal infections or exposure.

There has been a steady increase in the number of persons living with HIV/AIDS in Newark and in the State as a whole. The total number statewide has risen from 25,343 in 1997 to 30,756 in 2002. Most of this increase has occurred among people age 45 to 64 and may be due to both the effects of improved medications and the older age at which people are being diagnosed with HIV/AIDS in New Jersey.

Among people living with HIV/AIDS as of December 31, 2003, about 36 percent statewide and 41 percent in Newark City are female (exhibits 11 and 12). Compared to the State as a whole, a substantially higher proportion of people living with HIV/AIDS in Newark are non-Hispanic Black (79 vs. 55 percent) (exhibits 12 and 13). About 17 percent in Newark and 21 percent statewide are Hispanic, and about 22 percent statewide and only 4 percent in Newark are non-Hispanic White (exhibits 12 and 13).

With respect to transmission mode among people living with HIV/AIDS, injection drug use alone accounted for 32 percent of cases statewide and 39 percent in Newark. Heterosexual contact accounted for 21 percent of cases statewide and 25 percent in Newark. MSM contact alone accounted for 18 percent statewide and 10 percent in Newark, while MSM and IDU combined were involved in 3 percent of cases statewide and 3 percent in Newark (exhibits 11 and 12). The continued increase in heroin injection by the young (aged 18–25) and the very high levels of heroin abuse and heroin-related deaths continue to pose a serious risk for an increase in the prevalence of infectious diseases. However, no data are yet available to document any rise in the prevalence of HIV/AIDS in New Jersey.

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National Drug Intelligence Center. *Narcotics Digest Weekly* 2 (46) November 18, 2003.

National Drug Intelligence Center. *Narcotics Digest Weekly* 2 (45) November 11, 2003.

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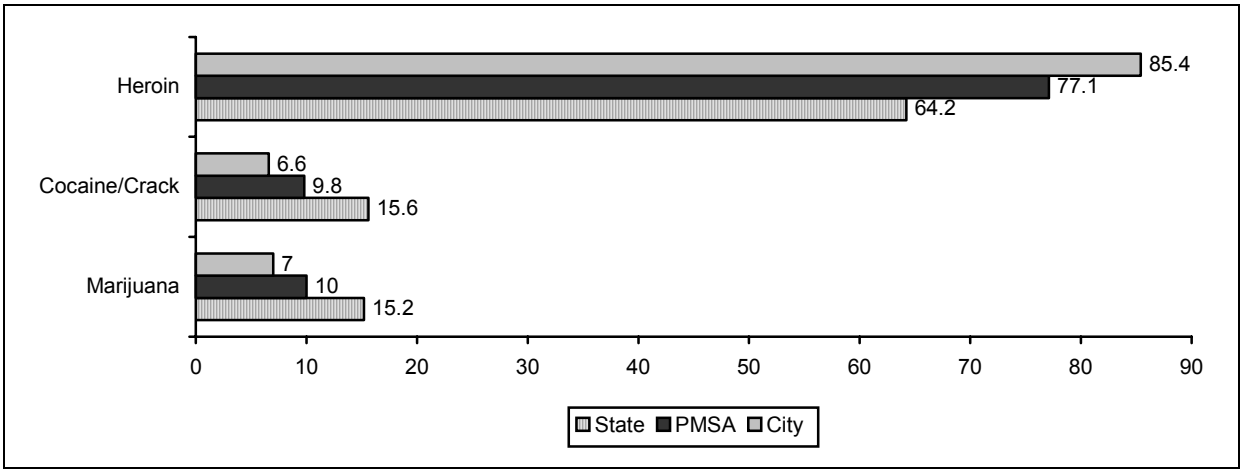
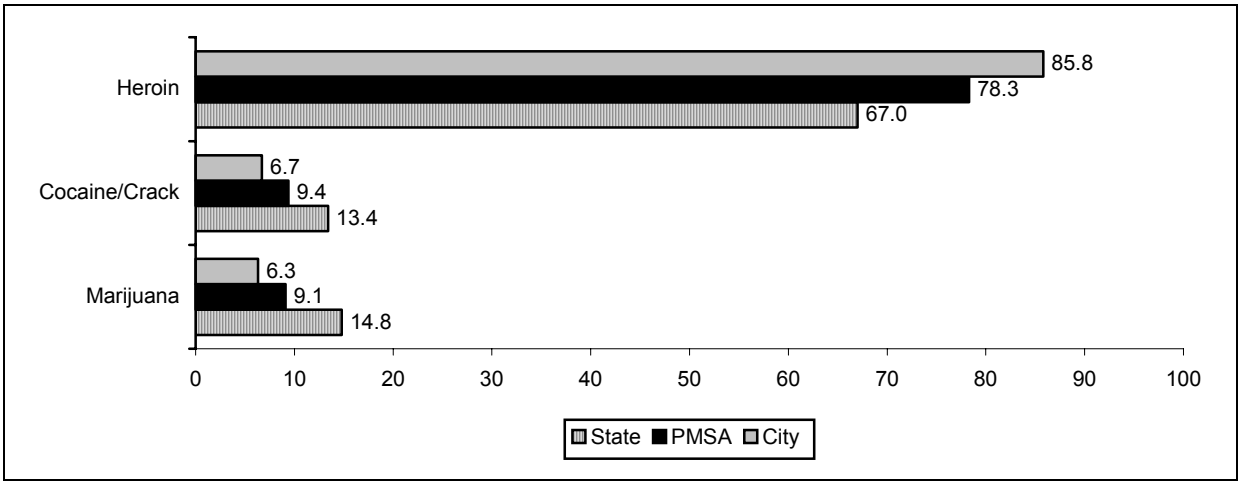
Exhibit 1. Percentages of Primary Treatment Admissions (Excluding Alcohol) for Selected Drugs[1] in Newark City, the Newark PMSA, and New Jersey: 2003



[1]Three-quarters of the primary cocaine admissions in Newark City and nearly two-thirds of those in the PMSA were for primary crack abuse.

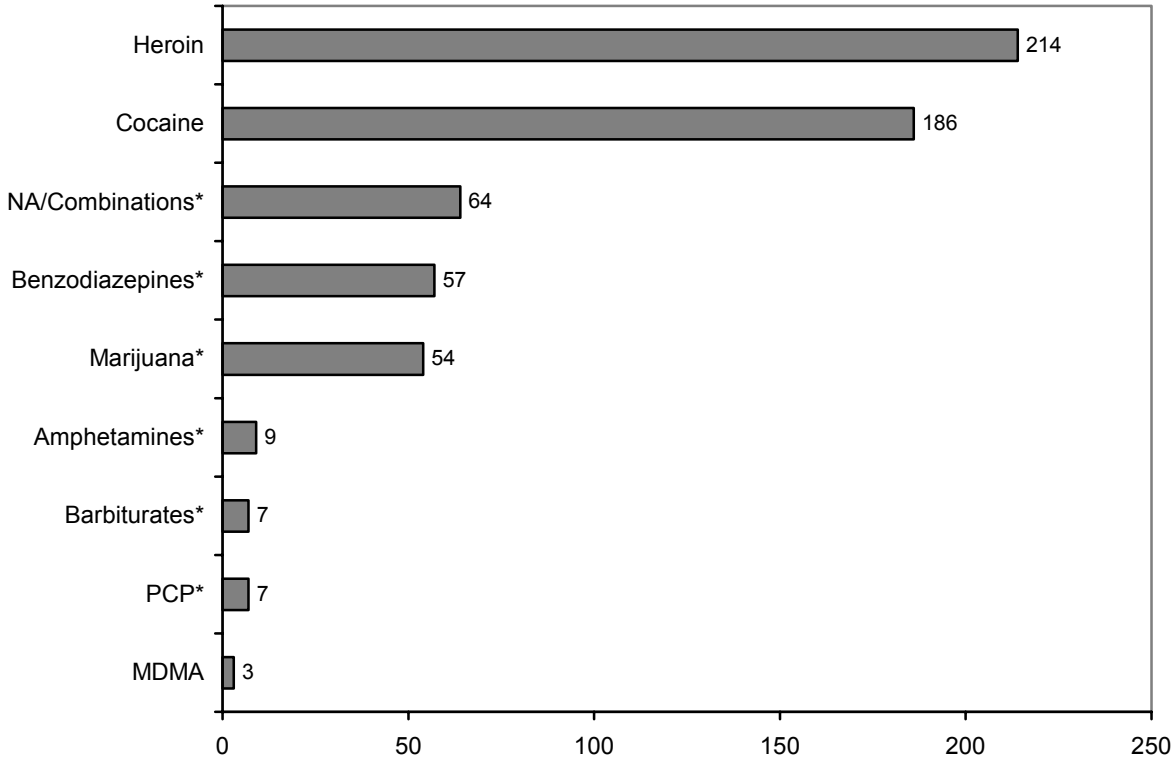
SOURCES: ADADS, NJSAMS, State Department of Human Services

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 for these drugs.

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[1]	
				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

[1]These columns denote statistically significant ($p<0.05$) increases and decreases between the time periods shown.

SOURCE: DAWN, OAS, SAMHSA

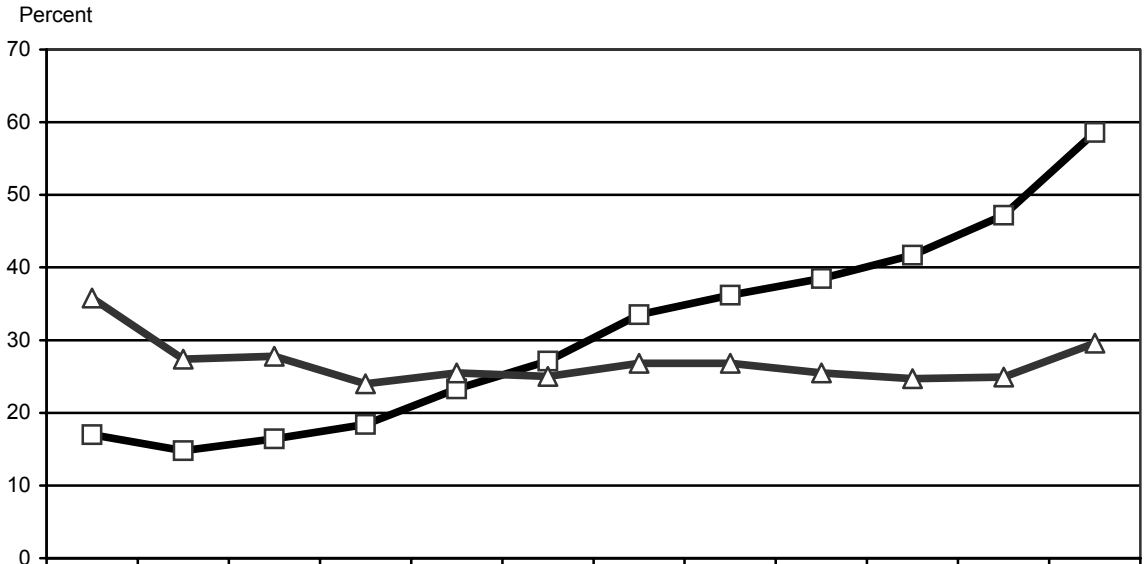
Exhibit 5. Number of Items Analyzed for Specific Drugs in Newark and Percentage of Total Items: January–December, 2003[1]

Drug	Number	Percent
Cocaine	1,840	48.3
Heroin	1192	31.3
Marijuana	505	13.3

[1]*N*=3,809

SOURCE: NFLIS, DEA

Exhibit 6. Heroin Injection Among Treatment Admissions by Age Group in the Newark PMSA, by Percent: 1992–2003[1]

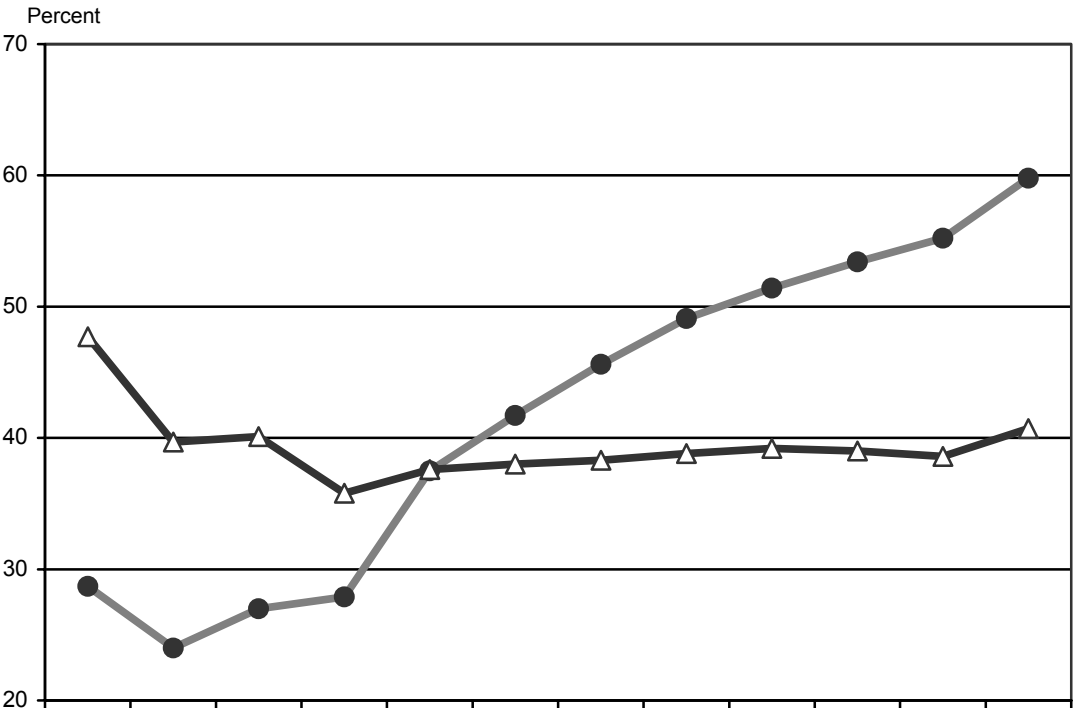


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
18–25	17.0	14.8	16.4	18.4	23.3	27.1	33.5	36.2	38.5	41.7	47.2	58.6
All Ages	35.8	27.4	27.8	24	25.5	25	26.8	26.8	25.5	24.7	24.9	29.6

[1]2002 data reflect partial-year reporting only.

SOURCE: ADADS

Exhibit 7. Percentages of Heroin Injectors Among Treatment Admissions by Age Group in New Jersey: 1992–2003[1]

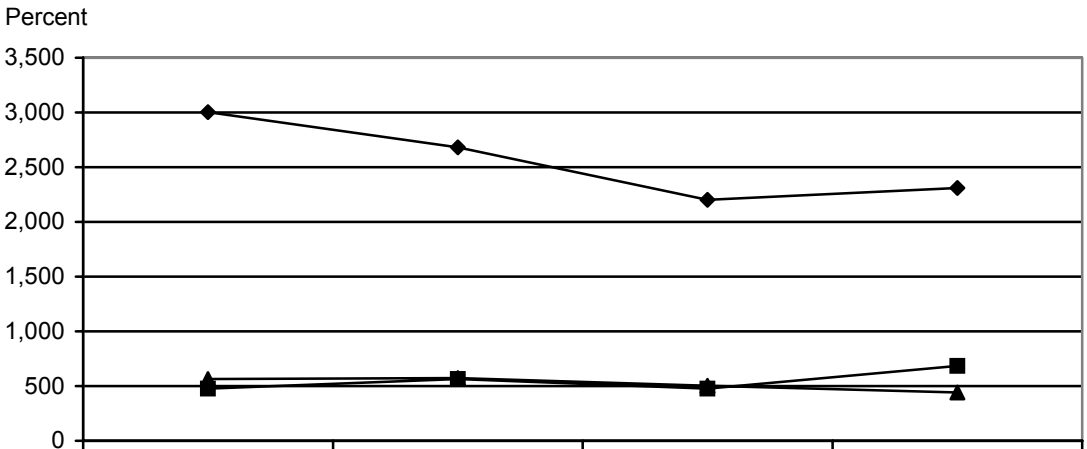


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
18–25	28.7	24.0	27.0	27.9	37.5	41.7	45.6	49.1	51.4	53.4	55.2	59.8
All Ages	47.7	39.7	40.1	35.8	37.6	38	38.3	38.8	39.2	39	38.6	40.7

[1]2002 data reflect partial-year reporting only.

SOURCE: ADADS

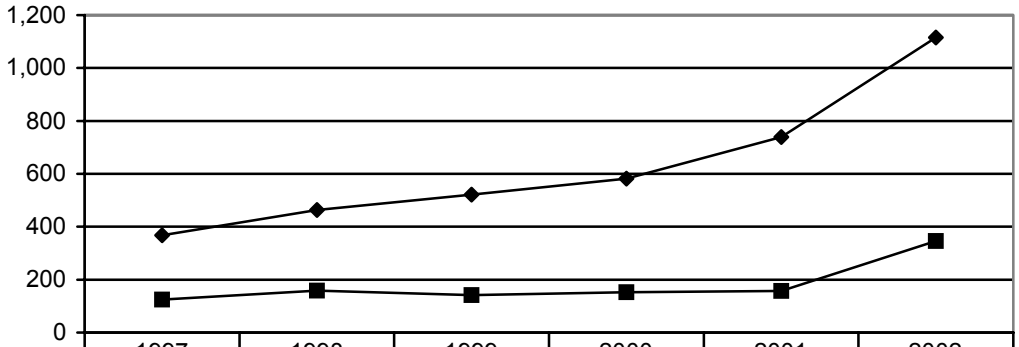
Exhibit 8. Race/Ethnicity of Heroin ED Mentions in Newark: 1999–2002



	1999	2000	2001	2002
Black	3,003	2,680	2,203	2,310
White	476	563	478	685
Hispanic	565	574	504	441

SOURCE: DAWN, OAS, SAMHSA

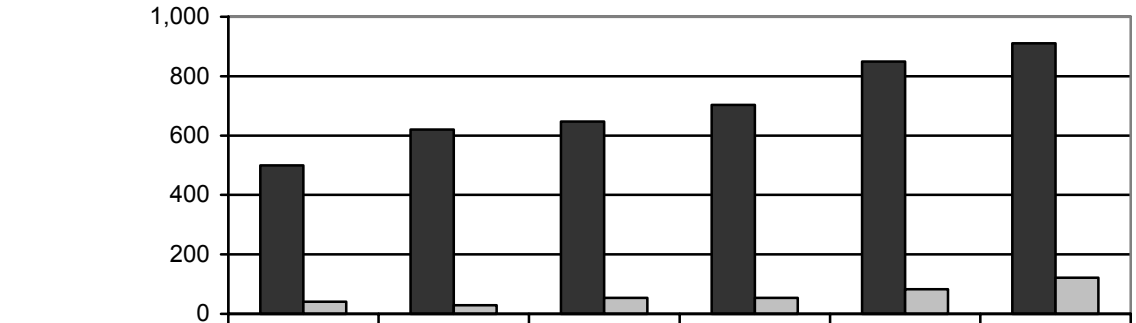
Exhibit 9. Numbers of Narcotic Analgesic/Combinations and Methadone ED Mentions, by Year: 1997–2002



	1997	1998	1999	2000	2001	2002
NA/Cs	368	463	521	582	739	1,115
Methadone	125	159	141	152	157	346

SOURCE: DAWN, OAS, SAMHSA

Exhibit 10. Numbers of Benzodiazepine and Barbiturate ED Mentions, by Year: 1997–2002



	1997	1998	1999	2000	2001	2002
Benzodiazepines	499	620	647	703	849	911
Barbiturates	41	29	54	54	83	122

SOURCE: DAWN, OAS, SAMHSA

Exhibit 11. Adult/Adolescent and Pediatric Cases Living With HIV/AIDS in Newark City by Exposure Category and Gender as of December 31, 2003

Exposure Category	Males		Females		Total	
	N	(%)	N	(%)	N	(%)
Adult/Adolescent						
Men/sex/men (MSM)	530	(16)	0	(0)	530	(10)
Injection drug user (IDU)	1,297	(39)	822	(36)	2,119	(38)
IDU/MSM	160	(5)	0	(0)	160	(3)
Heterosexual contact	474	(14)	868	(38)	1,342	(24)
Adult Other/Unknown	757	(23)	531	(23)	1,288	(23)
Pediatric Modes	74	(2)	90	(4)	164	(3)
Total	**3,292**	**(100)**	**2,311**	**(100)**	**5,603**	**(100)**

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

Exhibit 12. Numbers and Percentages of Adult/Adolescent and Pediatric Cases Living With HIV/AIDS in New Jersey by Exposure Category, Race/Ethnicity and Gender as of December 31, 2003

Exposure Category	Males		Females		Total	
	No.	(%)	No.	(%)	No.	(%)
Adult/Adolescent						
Men/sex/men (MSM)	5,731	(28)	0	(0)	5,731	(18)
Injection drug user (IDU)	6,599	(33)	3,576	(32)	10,175	(32)
IDU/MSM	861	(4)	0	(0)	861	(3)
Heterosexual contact	2,205	(11)	4,251	(38)	6,456	(21)
Adult Other/Unknown	4,428	(23)	2,972	(27)	7,400	(24)
Pediatric Modes	344	(2)	353	(3)	697	(2)
Total	**20,168**	**(100)**	**11,152**	**(100)**	**31,320**	**(100)**
Race/Ethnicity						
White	4,980	(25)	1,909	(17)	6,889	(22)
Black	10,306	(51)	7,066	(63)	17,372	(55)
Hispanic	4,530	(22)	1,996	(18)	6,526	(21)
Other/Unknown	352	(2)	181	(1)	533	(2)
Total	**19,290**	**(100)**	**10,783**	**(100)**	**30,073**	**(100)**

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

Exhibit 13. Race/Ethnicity of People Living With HIV/AIDS as of December 31, 2003: Newark City

Race/Ethnicity	Adult/Adolescent		Pediatric		Total	
	No.	%	No.	%	No.	%
White, Non-Hispanic	#	#	#	#	196	3
Black, Non-Hispanic	4,334	79	89	89	4,423	79
Hispanic	932	17	8	8	940	17
Other	#	#	#	#	44	1
Total	5,503	100	100	100	5,603	100

# Indicates that a number is not shown due to small cell size, in accordance with NJDHSS security and confidentiality policies.

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[1]

ABSTRACT

Cocaine, especially crack, remains a major problem in New Orleans, although indicators suggest some decline in abuse of this drug. Heroin indicators are also declining. A growing problem is the abuse of narcotic analgesics, as shown by substantial increases in emergency department and mortality indicators and treatment admissions. Marijuana continues to be a major drug of abuse, accounting for a large proportion of drug arrests in 2003 and for 52 percent of the items analyzed by NFLIS in 2003. Also, admissions for primary marijuana abuse exceeded those for all other substances for the first time in fiscal year 2004. Treatment admissions data from eight other parishes for FY 2004 show that alcohol, cocaine, and marijuana accounted for large proportions of primary admissions. Admissions for opiates other than heroin accounted for 11–21 percent of all admissions in four parishes and between 5 and 9 percent in the other four.

INTRODUCTION

Area Description

New Orleans, located in southern Louisiana, covers 366 square miles, of which 164 are water. About one-half of the metropolitan area's 1.3 million inhabitants live in Orleans Parish, the largest of Louisiana's 64 parishes.

Serviced by several deep-water ports, New Orleans is located at the confluence of the Nation's two principal waterways: the Gulf Intracoastal Waterway and the Mississippi River. Sixteen barge lines, 50 ocean carriers, and 75 truck lines serve the Port of New Orleans

New Orleans has two airports. One is the New Orleans International Airport, which serves all cargo airlines. The second is the New Orleans Lakefront Airport, which serves general aviation and corporate and private aircraft. Domestic and international trade is 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 2000 through 2002. More complete data on the 2002 ED population were reported in the New Orleans June 2003 report.

- **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 year (FY) 1992 through a portion of FY 2004. (Fiscal years run July through June, but FY 2004 data are available for July 2003 through March 2004 only.) Data for FY 2004 in eight of the largest parishes in the State are also reported.

- **Drug-related mortality data** were derived from DAWN, OAS, SAMHSA. These medical examiner (ME) data cover five of the eight jurisdictions and represent 93 percent of the metropolitan statistical area population in the participating jurisdictions. DAWN ME data are presented for 1997–2002.

- **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 three quarters of 2003. Adult male arrestee data for 2003 are weighted (total weighted was 7,505). Data on 242 adult female arrestees are unweighted.

- **Student drug use data** are from the Youth Risk Behavior Surveillance System (YRBSS) survey, Centers for Disease Control and Prevention, for 1999 and 2003. Presented in this report are percentages of students in grades 9–12 who used a drug one or more times during their life and selected data on past-30-day drug use.

[1]The author is affiliated with the New Orleans Health Department, New Orleans, Louisiana.

- **Drug arrest data** were provided by the New Orleans Police Department (NOPD) for 2002–2003.

- **Forensic laboratory testing data** were provided by the National Forensic Laboratory Information System for 2003.

- **Drug price, purity, and seizure information** was extracted from the *Narcotics Digest Weekly*, Volume 2, Number 50, December 16, 2003, National Drug Intelligence Center, and the Drug Enforcement Administration (DEA) for the last quarter of 2003. Data for heroin purity were derived from the DEA's Domestic Monitor Program (DMP) for 2003.

- **Drug-related homicide data** were reported by the Orleans Parish Coroner's Office for 1999–2003.

- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the Louisiana State Health 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 13.05 kilograms of cocaine were seized in the fourth quarter of FY 2002, compared with 71.75 kilograms in the first quarter of FY 2003. The majority of the cocaine trafficking within the New Orleans field district continues to originate from Colombia- and Mexico-based organizations that operate out of California and Texas.

Rates of DAWN cocaine ED mentions per 100,000 population in New Orleans increased significantly from 2000 to 2002 but were stable from 2001 to 2002 (exhibit 1). In 2002, ED mentions of cocaine totaled 1,674, with a rate of 145 per 100,000 population. Sixty-four percent of the mentions represented multidrug episodes.

The largest proportions of the cocaine ED mentions in 2002 were for patients who were male (64 percent), Black (60 percent), and age 35 and older (58 percent). Nearly 19 percent of the mentions were among patients who reported overdose as their reason for contacting the emergency department, while nearly 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 FY 2004, primary cocaine abuse accounted for 31.3 percent of the 1,706 clients for whom a primary substance was reported (exhibit 2). Excluding alcohol, cocaine accounted for 38.6 percent of the admissions.

Of the 534 primary cocaine admissions in Orleans Parish in FY 2004, the majority were Black, with 52.4 percent being Black males and 31.1 percent being Black females. Gender differences among Whites were small: 8.0 percent of primary cocaine admissions were White males and 6.7 percent were White females.

Treatment data on eight other Louisiana parishes show that the proportions of primary cocaine admissions in FY 2004 were higher in East Baton Rouge Parish (45.5 percent) and Lafayette Parish (32.3 percent) than in Orleans Parish (exhibit 3). In the remaining six parishes, the proportions of primary cocaine admissions ranged from approximately 16 to 28 percent. Across all nine parishes, cocaine ranked first only in East Baton Rouge Parish.

DAWN ME data show 101 cocaine death mentions in 2002, up from 90 in 2001 but down from the peak of 111 in 2000 (exhibit 4). In 2002, 13 (12 percent) of the cocaine death mentions in DAWN were for cocaine only. Another nine mentions involved alcohol and cocaine, and one involved cocaine and narcotic analgesics.

New Orleans ADAM data indicate that 47.6 percent of adult males tested positive for cocaine in the first three quarters of 2003 (exhibit 5). Among female arrestees in 2003, 37.3 percent tested positive for cocaine. Through interviews, 8.3 percent of the male arrestees reported using powder cocaine in the "past 7 days," and 22.1 percent admitted to use of crack. The proportions of women reporting use of powder and crack cocaine were similar—8.7 and 23.3 percent, respectively.

The proportion of New Orleans secondary school students who reported ever using cocaine/crack totaled 3.4 percent in 2003, stable from 3.5 percent in 1999 (exhibit 6). Males reported a much higher proportion of lifetime use of cocaine/crack in 2003 than females (5.5 percent vs. 1.5 percent). In 2003, reported lifetime use of cocaine was highest among

9th graders (4.0 percent) and 11th graders (4.1 percent), compared with 1.7 percent for 10th graders and 2.9 percent for 12th graders.

The NOPD reported 2,941 arrests for cocaine possession in 2003, down from 3,649 in 2002 (exhibit 7). Black males accounted for the majority of these arrests in 2003 (73 percent), followed by Black females (13 percent), White males (10 percent), and White females (3 percent). Cocaine distribution arrests also decreased between 2002 and 2003, by 12 percent. Similar to arrests for cocaine possession, Black males accounted for the majority of cocaine distribution arrests, at 86 percent.

Of the 12,387 drug items tested by NFLIS in 2003, 4,757, or 38 percent, were cocaine (exhibit 8).

The price of powder cocaine remained relatively stable in the last quarter of 2003, averaging $80–$150 per gram retail and $800–$1,200 per ounce for midlevel distribution (exhibit 9). The wholesale kilogram price was $18,000–$25,000. The price of crack cocaine was $8,000 per pound, with an individual rock selling for $5–$25. The kilogram price increased to $20,000–$28,000.

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 views 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 2000 and 2002, heroin ED rates declined significantly; the rate in 2002 (53) was stable from 2001 (exhibit 1). Two-thirds of the 617 heroin ED mentions in 2002 were for male patients, 54 percent were for Blacks, and 39 percent were for patients age 35 and older. Nearly one-half (49 percent) were 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 FY 2004, nearly 11 percent of treatment admissions in Orleans Parish were for primary heroin abuse; this is stable from FY 2003 but considerably higher than the proportions in FYs 1994–1998 (exhibit 2). Nearly 60 percent of the primary heroin admissions in Orleans Parish were Black males. In FY 2004, the percentage of primary heroin admissions in Orleans Parish was more than 10 times the percentages reported in the seven of the eight other parishes shown in exhibit 3.

In 2002, the DAWN ME reported 19 mentions of heroin/morphine; none was a single-drug death (exhibit 4). The heroin/morphine-involved deaths in 2002 were the lowest over the 6-year period shown in exhibit 4.

Among adult male arrestees in the ADAM program, 14.0 percent tested positive for opiates in the first three quarters of 2003 (exhibit 5). Among female arrestees, 13.3 percent tested positive for opiates.

The proportion of New Orleans secondary students who reported lifetime use of heroin was stable between 1999 (4.0 percent) and 2003 (4.1 percent) (exhibit 6). In 2003, the proportion of males reporting lifetime heroin use was much higher than the proportion of females reporting such use (5.9 vs. 2.5 percent, respectively).

The NOPD reported 358 heroin possession arrests in 2003, up from 301 in 2002 (exhibit 7). The number of heroin distribution arrests, however, declined by 15 percent during that same time period. Black males continued to account for the majority of heroin possession and distribution arrests, at 64 and 88 percent, respectively, in 2003. The proportion of White females surpassed that for Black females among heroin possession arrests in 2003.

Of items tested by NFLIS in 2003, 6.2 percent were heroin (exhibit 8). Preliminary DMP data for 2003 showed heroin purity at 31.8 percent. The average price per milligram pure was $1.62. 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 (exhibit 9).

Other Opiates/Narcotics

Indicators for opiates other than heroin remained low during the last 6 years. Other opiates represented about 1.3 percent of all treatment admissions. Hydromorphone (Dilaudid) is being 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.

DAWN data show 1,133 ED mentions of narcotic analgesics/combinations in 2002 and a rate of 98 mentions per 100,000 population (exhibit 1), with a significant increase between 2000 and 2002 for both indicators. Hydrocodone/combinations and oxycodone/combinations accounted for nearly 36 percent of the mentions (with 277 and 130 mentions, respectively) in 2002.

Among treatment admissions in Orleans Parish in FY 2004, 68 (4.0 percent) were for primary abuse of "other opiates or synthetic opioids" (*n*=66) or nonprescription methadone (2). All but seven were White; 57 percent were White females and 35 percent were White males. Whites also dominated among these other opiate admissions in other parishes. The proportions of these admissions in East Baton Rouge and Ouachita Parishes (ranging from 4.7 to 5.0 percent) were similar to that in Orleans Parish, while those in the other parishes were higher, ranging from approximately 7 to 21 percent (exhibit 3). In St. Tammany Parish, 21 of the 216 other opiate admissions were for nonprescribed methadone, the highest number in any of the 9 parishes represented in exhibits 2 and 3.

Deaths involving mentions of narcotic analgesics rose sharply from 1997 to 2002. Of the 352 narcotic analgesic mentions in 2002, 12 (6 percent) were single-drug deaths (exhibit 4).

Of the 12,387 items analyzed by NFLIS in 2003, 145 (1.2 percent) were "other opiates/narcotics" (exhibit 8); 66.5 percent of these were hydrocodone, 16.6 percent were methadone, and 12.4 percent were oxycodone.

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, because of 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.

The rate of marijuana ED mentions per 100,000 population declined insignificantly from 87 in 2000 to 72 in 2002 (exhibit 1).

Of the 832 marijuana ED mentions in 2002, 63 percent were for male patients; 44 percent were for Blacks and 50 percent were for Whites. Patients represented in the marijuana mentions were more evenly divided by age in the groups 18 and older: 31 percent were age 18–25, 25 percent were 26–34, and 37 percent were age 35 and older. Three-fourths of the mentions represented multidrug episodes. The most frequently reported motives for using marijuana were psychic effects (29.6 percent) and dependence (30.6 percent). Nearly 35 percent of the mentions relating to reasons for contacting the ED fell in the "unknown" category. Twenty-six percent represented patients who cited "overdose" on marijuana as the reason for contacting the ED.

The Orleans Parish treatment data showed little change in the proportion of primary marijuana admissions from FY 1995 to FY 2003, but they peaked in FY 2004 at 33.6 percent of all admissions, exceeding the proportions for other substances (exhibit 2). Nearly 69 percent of the 568 marijuana admissions in FY 2004 were Black males, and nearly 19 percent were Black females; White males accounted for 10 percent and White females represented nearly 2 percent. The proportion of primary marijuana admissions in the Orleans Parish caseload in FY 2004 was considerably greater than that in six other parishes shown in exhibit 3, with only Calcasieu Parish (at 30.0 percent) approximating Orleans Parish and Terrebonne Parish (at 37.3 percent) exceeding Orleans Parish.

ME data for 2002 show 51 mentions of marijuana (exhibit 4), with 1 being a single-drug death. The 2002 mentions represent a substantial increase from the number reported in 2001 but slightly fewer than the numbers reported in 1999 and 2000.

ADAM data show that 50.8 percent of adult male arrestees tested marijuana positive in the first three quarters of 2003 (exhibit 5). The proportion of females testing marijuana positive was 30.3 percent.

While the proportions of secondary students in New Orleans who reported lifetime use of cocaine and heroin remained stable between 1999 and 2003, the proportions reporting lifetime use of marijuana decreased from 38.1 percent in 1999 to 34.5 percent in 2003 (exhibit 6). The proportion dropped dramatically for females (38.4 percent in 1999 vs. 29.5 percent in 2003). Additionally, the proportion of students reporting past-30-day use of marijuana decreased as well between the 2 years, from 21.0 percent in 1999 to 17.9 percent in 2003.

As shown in exhibit 7, arrests for marijuana possession increased slightly between 2002 and 2003, as did those for marijuana distribution. As with arrests for other drugs, Black males accounted for the majority of marijuana possession and distribution arrests, at 72 and 79 percent, respectively.

Cannabis ranked first as the most frequently analyzed drug by NFLIS in 2003, accounting for 6,465 items, or 52.2 percent of the total (exhibit 8).

Marijuana prices remained relatively stable at $10 per gram, $125–$160 per ounce, $800–$1,000 per pound, and $2,000 per kilogram (exhibit 9). The price of a joint averaged $2, down from $5 in 2001.

Stimulants

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 reported to be primarily 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 and adult age categories; 29 were Black. Nearly 55 percent were single-drug episodes. The number of amphetamine ED mentions totaled 128 in 2002, with no significant change from 2000 or 2001. Forty-nine percent of the amphetamine mentions were for female patients, 78 percent were for White patients, and 30 percent were for patients age 18–25.

In Orleans Parish treatment programs in FY 2004, there was only one admission for primary methamphetamine abuse and six for primary amphetamine abuse. In eight other parishes, amphetamine/methamphetamine admissions were also low, ranging from less than 1.0 to 2.1 percent in four parishes and between approximately 4 and 7 percent in the other parishes (exhibit 3). The numbers of primary methamphetamine admissions were particularly high in Rapides and Ouachita Parishes (52 and 26, respectively).

Three methamphetamine-related death mentions were recorded in the DAWN ME system in 2002, the first such deaths over a 6-year period. Across that time period, 39 amphetamine mentions were recorded, with 13 occurring in 2002 (exhibit 4).

In the ADAM program, 2.6 percent of the male arrestees tested methamphetamine-positive in the first three quarters of 2003, as did 0.8 percent of the females. No arrestees admitted to use of methamphetamine during the "past 7 days."

The proportion of New Orleans secondary students who reported lifetime use of methamphetamine increased from 4.5 percent in 1999 to 5.8 percent in 2003 (exhibit 6). In 2003, reported lifetime use of methamphetamine was highest among 9th (6.5 percent) and 12th (8.7 percent) graders, compared with 3.9 percent for 10th graders and 4.1 percent for 11th graders.

Only 31 of the 12,387 items analyzed by NFLIS in 2003 were methamphetamine (24) or an amphetamine (7) (exhibit 8).

Prices for methamphetamine increased in the second half of 2003 and averaged $100 per gram, $1,400–$1,600 per ounce, and $20,000 per pound (exhibit 9).

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 (Rohyphnol) 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 show a significant increase in MDMA or ecstasy mentions 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 24 percent were age 26–34. Nearly 70 percent presented 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.

ED mentions for other drugs used in the "club scene" were few in number. There were 34 GHB mentions 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 showed seven "club drug" deaths in 2002, the same number as in 2001 but more than double the number reported in 2000 (exhibit 4).

Among New Orleans secondary school students in 2003, 7.2 percent reported lifetime use of ecstasy, higher than the proportions reporting lifetime use of methamphetamine, heroin, or cocaine/crack.

Of the 12,387 items analyzed by NFLIS in 2003, only 55 were MDMA (exhibit 8). Another 16 were ketamine.

The retail cost of MDMA in the last half of 2003 was $15–$20 per tablet (exhibit 9).

Benzodiazepines

The rate of DAWN ED mentions per 100,000 population for benzodiazepines increased insignificantly from 53 in 2000 to 82 in 2002 (exhibit 1).

Treatment admissions data for FY 2004 show six admissions for primary benzodiazepine abuse in Orleans Parish, with the same number in both East Baton Rouge and Ouachita Parishes. The numbers were much higher in four parishes—Lafayette (14), St. Tammany (18), Calcasieu (23), and Rapides (26). Benzodiazepine admissions in the two other parishes were zero (Bossier) and two (Terrebonne).

DAWN ME data showed 148 mentions of benzodiazepines in 2002 (exhibit 4), up dramatically from the 73 reported in 2001.

Benzodiazepines accounted for 1 percent of the items analyzed by NFLIS in 2003 (exhibit 8). Of these, 74 (61.7 percent) were alprazolam and 39 (32.5 percent) were diazepam.

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 showed 1,430 alcohol-in-combination mentions in 2002, down significantly from the 1,181 mentions in 2001. The 2002 rate was 421 mentions per 100,000 population.

In Orleans Parish, primary alcohol admissions accounted for nearly 19 percent of all admissions in FY 2004 (exhibit 2). Primary alcohol admissions in eight other parishes in 2002 ranged from a low of 25 percent in St. Tammany Parish to a high of 41 percent in Bossier Parish (exhibit 3).

In the 2002 DAWN ME data, 90 mentions involved alcohol-in-combination with other drugs, the highest number reported over a 6-year period (exhibit 4).

In the ADAM program, 9.5 percent of the male arrestees and 95.5 percent of the female arrestees tested positive for alcohol in the first three quarters of 2003. Nearly 31 percent of the males and 14 percent of the females were assessed as being at risk for alcohol dependence.

Deaths

The Orleans Parish Coroner's Office reported 283 homicides in 2003, up from 269 in 2002, 215 in 2001, and 165 in 1999. Of the 283 homicides in 2003, 148 (52 percent) were drug-related; more than 40 percent involved crack and 40 percent involved heroin. Also in 2003, 71 suicides were reported.

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). During the same period in 2002, IDUs represented 18 percent and MSM/IDUs represented 10 percent.

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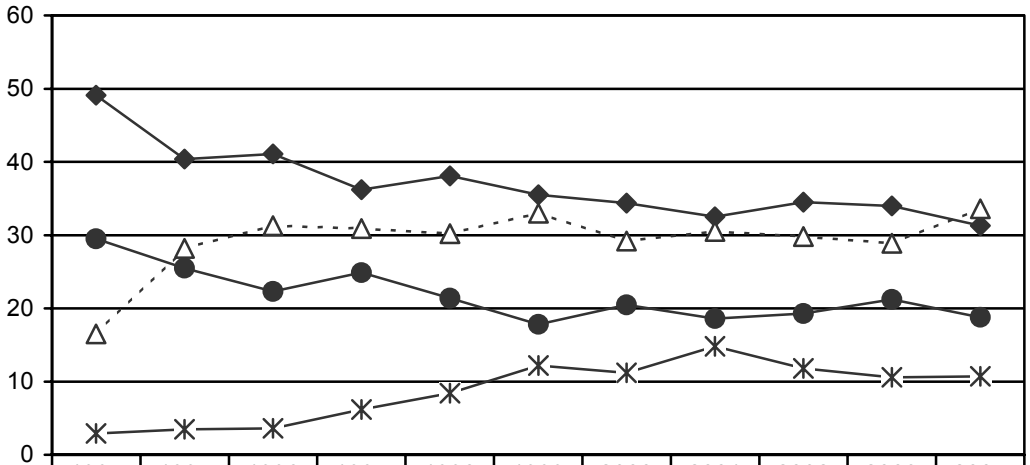
Exhibit 1. Number of ED Mentions of Selected Drugs and Rates Per 100,000 Population in New Orleans: 2000–2002

Drug	Mentions			Rates		
	2000	2001	2002	2000	2001	2002
Cocaine	1,998[1]	1,422	1,674	162[1]	123	145
Heroin	982[1]	530	617	80[1]	46	53
Marijuana	1,068	814	832	87	71	72
Methamphetamine	27[1]	…[2]	53	2[1]	…	5
Amphetamines	103	118	128	8	10	11
Narcotic Analgesics/Combinations	675[1]	857	1,133	55[1]	74	98
MDMA	44[1]	34	79[3]	4[1]	3	7[3]
Benzodiazepines	659	772	947	53	67	82

[1]The percent change between 2000 and 2002 was statistically significant.
[2]Dots (…) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.
[3]The percent change between 2001 and 2002 was statistically significant.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 2. Percentages of Treatment Admissions in Orleans Parish by Drug and Year: 1994–2004



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Cocaine	49.1	40.4	41.1	36.2	38.1	35.5	34.4	32.5	34.5	34	31.3
Heroin	2.9	3.5	3.6	6.2	8.4	12.2	11.2	14.8	11.8	10.6	10.7
Marijuana	16.5	28.2	31.3	30.9	30.2	33	29.2	30.5	29.8	28.9	33.6
Alcohol	29.5	25.5	22.3	24.9	21.4	17.8	20.5	18.6	19.3	21.2	18.8

SOURCE: Louisiana State Office of Alcohol and Drug Abuse

Exhibit 3. Treatment Admissions for Selected Drugs in Eight Parishes Outside Orleans Parish, by Percent: 2004

Drug	Parish							
	Bossier	Calcasieu	East Baton Rouge	Lafayette	Ouachita	Rapides	St. Tammany	Terrebonne
Cocaine	26.7	15.8	45.5	32.3	24.8	26.5	28.4	17.3
Heroin	0.0	0.3	0.8	0.9	0.3	0.7	3.3	0.3
Other Opiates	8.9	11.4	5.0	11.5	4.7	11.4	21.1	7.5
Marijuana	15.4	30.0	13.2	13.3	26.6	17.5	17.3	37.3
Metham-phetamine	6.2	4.2	2.1	1.0	3.8	6.7	1.6	1.0
Alcohol	40.8	30.7	32.6	37.8	36.1	32.9	24.7	34.2
Other Drugs	2.0	7.6	0.8	3.2	3.7	4.3	3.6	2.4
Total (*N*=)[1]	(*292*)	(*983*)	(*3,432*)	(*885*)	(*914*)	(*1,295*)	(*1,026*)	(*986*)

[1]Excludes a few admissions for whom a primary drug was not reported.
SOURCE: Louisiana State Office of Alcohol and Drug Abuse

Exhibit 4. Number of DAWN Medical Examiner Death Mentions in New Orleans: 1997–2002

Drug Category	Year						Single-Drug Deaths, 2002
	1997	1998	1999	2000	2001	2002	
Alcohol-in-Combination	54	63	86	73	78	90	–
Cocaine	66	75	82	111	90	101	13
Heroin/Morphine	20	29	38	48	37	19	–
Marijuana	28	49	58	55	39	51	1
Amphetamines	5	7	7	4	3	13	2
Club Drugs[1]	–	1	4	3	7	7	–
Narcotic Analgesics [2]	59	69	124	118	200	352	12
Other Analgesics	30	13	13	9	19	53	–
Benzodiazepines	34	55	67	78	73	148	–
Antidepressants	9	6	26	11	17	27	–
All Other Substances[2]	90	43	73	39	101	235	–
Total Drug Deaths	162	175	208	223	212	295	28
Total Drug Mentions	395	410	578	549	664	1,099	28
Total Deaths Certified	5,005	5,149	5,070	5,139	5,045	4,899	–

[1]Includes ecstasy (MDMA), ketamine, GHB, gamma butyrolactone (GBL), and Rohypnol.
[2]Not tabulated above; includes three methamphetamine-involved deaths in 2002, with none reported in the prior years.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 5. Percentages of ADAM Adult Arrestees Testing Positive for Selected Drugs in New Orleans: 2000–January–September 2003[1]

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	47.6	14.0	50.8
Females			
2000	41.1	8.5	28.0
2001	38.1	7.6	25.1
2002	42.2	9.2	26.0
2003	37.3	13.3	30.3

[1]Male data are weighted; female data are unweighted.
SOURCE: ADAM, NIJ

Exhibit 6. Percentages of New Orleans Secondary Students Who Ever Used[1] Selected Drugs, by Year and Gender: 1999, 2003

Drug	1999			2003		
	Male	Female	Total	Male	Female	Total
Cocaine/Crack	5.6	1.7	3.5	5.5	1.5	3.4
Heroin	6.0	2.3	4.0	5.9	2.5	4.1
Marijuana	43.4	38.4	38.1	40.0	29.5	34.5
Methamphetamine	6.5	2.7	4.5	8.4	3.5	5.8
Ecstasy	NS[2]	NS	NS	10.7	3.9	7.2

[1]Defined as use one or more times during life.
[2]NS=Not sampled.
SOURCE: YRBSS, CDC

Exhibit 7. Drug Arrests in Orleans Parish by Race/Ethnicity, Gender, and Offense: 2002–2003

Drug/Offense	Males						Females						Total	
	Black		White		Other		Black		White		Other			
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
Cocaine														
Possession	2,430	2,134	430	306	10	14	646	385	129	101	4	1	3,649	2,941
Distribution	1,223	1,086	46	38	6	6	148	120	10	11	1	1	1,434	1,262
Heroin														
Possession	204	230	53	66	1	0	18	24	25	38	0	0	301	358
Distribution	177	155	3	5	0	0	13	16	3	0	0	0	196	176
Marijuana														
Possession	4,345	4,389	1,018	1,034	16	18	384	447	196	182	0	0	5,959	6,070
Distribution	808	832	51	80	2	1	107	119	13	23	0	2	981	1,057
Other Drugs	299	197	81	51	2	1	40	24	117	25	0	0	539	298
Drug Paraphernalia	1,340	1,404	636	631	11	18	447	402	204	195	2	2	2,640	2,652

SOURCE: NOPD

Exhibit 8. Number of Analyzed Items and Percentage of All Items Tested[1] in New Orleans, by Drug: 2003

Drug	Number	Percent
Cannabis	6,465	52.2
Cocaine	4,757	38.4
Heroin	773	6.2
Other Opiates	145	1.2
Benzodiazepines	120	1.0
MDMA/MDA	55	0.4
Methamphetamine/Amphetamines	31	0.2

[1]A total of 12,387 items were reported.
SOURCE: NFLIS, DEA

Exhibit 9. Illicit Drug Prices in New Orleans: July–December 2003

Drug	Price in Dollars		
	Wholesale	Midlevel	Retail
Powder Cocaine	$18,000–$25,000 per kilogram $5,000–$5,500 per pound	$800–$1,200 per ounce	$250 per ¼ ounce $80–$150 per gram
Crack	$20,000–$28,000 per kilogram $8,000 per pound	$900–$1,200 per ounce	$5–$25 per rock $80–$125 per gram
Heroin	$80,000–$100,000 per kilogram	$4,000–$9,000 per ounce	$300–$600 per gram $20–$25 per paper
Marijuana	$2,000 per kilogram $800–$1,000 per pound	$125–$160 per ounce	$10 per gram $2 per joint
Methamphetamine	$20,000 per pound	$1,400–$1,600 per ounce	$400–$500 per ¼ ounce $100 per gram
MDMA	$8–$12 per tablet	$12–$15 per tablet	$15–$20 per tablet

SOURCE: DEA and Narcotics Digest Weekly, NDIC

Drug Use Trends in New York City

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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 signs of increasing. Treatment admissions increased, and the Street Studies Unit reported signs of cocaine use rebounding. Heroin indicators, including treatment admissions and deaths, have increased. Heroin remains widely available, although the purity levels have now fallen below the recently reported 60-percent level. Marijuana indicators, which had been reaching new peaks, seem to have stabilized. Marijuana continues to be available in a wide variety of flavors and colors. Many kinds of prescription drugs continue to be available on the street, and they seem to be growing in popularity, based on indicator data and street observations. The Street Studies Unit has also observed an increase in PCP use in certain parts of New York City. Of the 83,249 New Yorkers living with HIV or AIDS, men having sex with men and injection drug use history were the two major transmission risk factors.

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 3 million New York City residents are foreign born (2,871,000), which represents 36 percent of the resident population, and about 1.1 million legal immigrants became New York City residents between 1990 and 2000. According to the Immigration and Naturalization Service, the New York metropolitan area is the most frequently mentioned destination for immigrants, more than double the number reporting the second most frequently mentioned destination. 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 3.7 million people employed in the city, 22 percent commute from surrounding areas. Overall, the unemployment rate in New York City for April 2004 was 7.5 percent, compared with 6.2 percent in New York State and 5.6 percent in the Nation. According to the Bureau of Labor Statistics, the New York City rate is lower than it was in April 2003, when it was 8.3, but it is dramatically higher than the unemployment rate for April 2001, when the rate was 5.5. 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:

- **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 Administrative (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.

- **Drug abuse-related death data** are from the DAWN 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

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

received for the New York metropolitan area, so data for New York were not presented for 2001.

- **Treatment admissions data** were provided by the New York State Office of Alcoholism and Substance Abuse Services (OASAS) for 1995–2003 and included both State-funded and nonfunded admissions. Demographic data are for 2003.

- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for 2003. 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 1994–2002.

- **Forensic laboratory testing data** for New York City were provided by the Drug Enforcement Administration (DEA)'s National Forensic Laboratory Information System (NFLIS) for 2003.

- **Drug price, purity, and trafficking data** were provided by the DEA's Domestic Monitor Program (DMP) for heroin. These data are supplemented by information from the OASAS Street Studies Unit (SSU) reports.

- **Cocaine use during pregnancy data** were provided by the New York City Department of Health for 1995–2002.

- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the New York City Department of Health for 1984 to the first quarter of 2003.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

In general, many 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).

For the New York City metropolitan area, DAWN estimates for cocaine ED mentions remained essentially the same in 2001 and 2002 (13,898 and 13,961, respectively). There was a significant decline, however, between 1995, when there were 19,715 mentions, and 2002—a decrease of 29 percent. The rate of cocaine ED mentions per 100,000 population in the New York City metropolitan area for 2002 was 166, the same as the previous 2 years, but a decline of 32 percent since 1995. The comparable national rate for 2002 was 78. While the national rate had been relatively stable, there was a 33-percent increase in this rate since 1995.

While primary cocaine treatment admissions to State-funded and nonfunded programs in New York City declined from 17,572 in 1998 to 14,059 in 2000, they increased to 16,114 in 2003. It should be noted that even when the cocaine treatment admissions were in decline, they did not show the same type of dramatic long-term decline that was seen in the other indicators. In 2003, cocaine admissions constituted 23 percent of all New York City's 69,244 drug and alcohol treatment admissions (excluding alcohol-only).

Exhibit 2 shows demographic characteristics of cocaine treatment admissions for 2003 by the two primary modes of use: smoking crack (representing 61 percent of cocaine admissions) and using cocaine intranasally (representing 36 percent). Those who smoke crack are more likely than intranasal users to be female (38 vs. 24 percent), Black (67 vs. 43 percent), readmissions to treatment (79 vs. 69 percent), and without income (39 vs. 29 percent). The two groups are similar in secondary drugs of abuse, primarily alcohol and marijuana, although intranasal users are more likely than crack smokers to have marijuana as a secondary drug of abuse (25 percent vs. 19 percent). While alcohol remains the most common secondary drug for all primary cocaine users, the percentages are lower than in 2002, when 43 percent reported alcohol as a secondary drug, compared with 39 percent in 2003. It should be noted that all admissions for primary cocaine abuse represent an aging population, and those smoking crack tend to be older than those using cocaine intranasally.

ADAM urinalysis data for 2003 showed different patterns for males and females. Findings show cocaine positives for 35.7 percent of males and 50.0 percent of females. More female arrestees tested positive for cocaine than for any other drug. For males, there were more positives for cocaine than for opiates, but fewer than for marijuana. Moreover, the percentage of cocaine positives for males was considerably lower than in recent years.

Another data source, the DEA's National Forensic Laboratory Information System, showed that of the 39,229 items reported for New York City in 2003, 20,118 (51 percent) were cocaine.

The SSU finds cocaine hydrochloride (HCl) highly available, and buying and use continue to rebound. Most cocaine sales remain indoors, but there are some street sales of half-grams selling for $20 to $25 and grams selling for $40, $45, or $50. One user reported,

however, that he buys two $20 half-grams because he feels he gets more cocaine than in a $40 or $50 gram. The selling of cocaine involves three basic methods, with the techno-method or virtual connection method continuing to be popular. 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.

Crack users report that crack continues to be highly available. The plastic bag is still the most popular method of packaging crack. The price of crack remains stable at $10 per bag, with increasing numbers of $5 bags being offered. There is also a new $10 vial being sold in Brooklyn and the Bronx that is thinner than the old vials. The color of the cap of the vial (red/yellow/black) indicates the crew that is distributing that brand. If the crew is selling both the bags and the vials, they will use the same color for both.

Researchers continue to report that in parts of Staten Island and Queens, Mexican gangs are supposedly taking over the sale of cocaine and heroin. This is creating a situation in which they are fighting the Dominicans for the territory.

Crack sellers are mostly in their teens to early thirties, and primarily Black and Hispanic. It should be noted that researchers are reporting seeing an increase in the number of female sellers, mainly in their twenties.

One dealer revealed to the field researcher that he stretches his cocaine by mixing it with baking soda and diamond crystal salt. He says he can take ½ gram of cocaine ($20–$25) and make 2½ grams of cocaine ($100–$125).

The DEA reports that prices for cocaine powder for July to December 2003 were $22,000–$26,000 per kilogram and $800–$1,600 per ounce. The DEA reports that crack sells for about $28,000–$30,000 per kilogram, $800–$1,600 per ounce, $27–$45 per gram, and $7–$10 per rock.

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-related 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, but in 2002, there were 421 deaths, more than for any other drug in New York City DAWN data.

The NYPD reports a decline in cocaine arrests since 1995 (n=40,846). The number of cocaine arrests in 2002 was 13,574, a 67-percent decrease since 1995. Of the cocaine arrests in 2002, 79 percent involved crack (exhibit 1).

Another important indirect indicator of cocaine involvement 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 363 in 2002—an 89-percent decline over 13 years (exhibit 1).

Heroin

Heroin indicators generally increased during this reporting period (exhibit 3). The number of heroin ED mentions in the New York metropolitan area remained relatively stable between 1995 (n=10,706) and 2002 (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.

Primary heroin admissions to treatment programs in New York City gradually increased between 1995 and 2003, from 18,287 to 23,563, a 23-percent increase (exhibit 3). In 2003, primary heroin admissions constituted 34 percent of New York City's 69,244 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 2003. Meanwhile, heroin injection increased among heroin admissions, from 32 percent in the second half of 1998 to 37 percent in 2003.

Exhibit 4 highlights general demographic characteristics of heroin abusers admitted to all New York City treatment programs in 2003 by mode of use. In general, primary heroin admissions were overwhelmingly male (74 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 (37 percent). Compared with heroin injectors, intranasal users were more likely to be Black (32 vs. 16 percent) and have some criminal justice status (38 vs. 26 percent). In contrast, primary heroin

injectors were more likely than intranasal users to be White (30 vs. 12 percent), to report cocaine as a secondary drug of abuse (44 vs. 34 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 2003 that figure increased to 16,010, essentially the same as in 2002 (16,083).

DAWN medical examiner (ME) figures for heroin-involved deaths in the New York City metropolitan area show a pattern of steady increases since 1999. In 1999, there were 174 such deaths, and in 2000, there were 193 heroin-involved deaths (exhibit 1). No DAWN mortality data were available for 2001, but in 2002 there were 224 heroin-involved deaths.

ADAM urinalysis data show fewer adult arrestees testing positive for opiates than for marijuana or cocaine. In 2003, 23.3 percent of females tested opiate-positive, as did 15.0 percent of males. The percentage for New York City females was the highest for the 10 CEWG areas where adult females were tested in 2003.

NFLIS data show that 14 percent of the cases for New York City in 2003 (5,615) were related to heroin.

From 1992 to 2000, the DMP found average heroin purities to be generally above 60 percent. Findings for 2003, however, show an average purity of 53.5 percent, down from 61.4 percent in 2002. The associated price is $0.48 per milligram pure, an increase from $0.36 per milligram pure in 2002. Kilogram prices are $60,000–$75,000 for South American heroin and $60,000–$100,000 for Southwest Asian heroin.

According to the SSU field staff, heroin continues to be easy to obtain in New York City. South American heroin still dominates the New York City scene, with purity levels above 50 percent but lower than the 60 percent seen recently. There have also been reports of Southwest Asian heroin in the area, with purity levels in the 40 percent range, but this is less common than the South American heroin. The field researchers have not come across any Mexican tar heroin in New York City. Both the demand and the supply of heroin remain high, and there seems to be more than enough heroin to meet the demand.

Users are reporting to researchers that heroin is being cut with different types of sleeping medications. In some instances, they are reporting that OxyContin is being used to cut heroin, as was noted in the last reporting cycle. The Street Studies Unit is continuing to research this phenomenon.

The price for street heroin remains stable at $10, but in several areas of the city, there has been an increase in the number of $5 bags being offered for sale. These $5 bags are half the quantity of the $10 bags. The $5 bag, which makes it easier for the buyer to "hustle up the money," is more readily available at night. In fact, some areas sell $5 bags only at night.

Dealers continue to change heroin brand names frequently in order to avoid arrest. Dealers are also changing their hours of operation in an effort to avoid police detection and arrest. Some of the new brand names being used during this cycle are Cross Over, Ben Laden, X-Men, Set Back, J. Lo, Blue Boys, Spiderman, Bachelor, Killer, Viagra, Witness, and 8 Miles.

Researchers are beginning to see teenagers, as young as 14 and of varied backgrounds, using heroin. In sections of Brooklyn and the Bronx, the staff is reporting that sellers are ranging in age from the late teens to the late thirties, and buyers are ranging in age from the early teens to the early sixties. A disturbing trend that seems to be catching on with teenagers is to sprinkle heroin over marijuana before rolling it up in a blunt cigar. While the teenagers did not give this method a name, it refers to what was called smoking "woolas." They prefer to use White Owl® cigars, because the leaf is stronger than other brands and is less likely to break.

One researcher was told by an addict that he enjoys sniffing heroin, waiting a while, then smoking crack and drinking a beer. He referred to this as "50/50" or the "50-yard line" method. "Reaching the 50-yard line is the best feeling in the world; you're not too high and you're not too down. You're right in the middle at the 50-yard line." One 15-year-old told the field researcher that he likes to "mix gravy." He purchases heroin and cocaine pre-mixed for $40, snorts it, and sometimes sprinkles it on a blunt and smokes it.

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 decreased from 33,665 in 2000 to 27,863 in 2001, but they increased again in 2002 to 34,098, an increase of 22 percent in the year.

Other Opiates/Narcotics

Although the numbers are small, ED mentions of hydrocodone/combinations and oxycodone/combinations have shown increases. According to DAWN data, hydrocodone/combinations ED 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 ED mentions also showed a tremendous increase, from 56 in 2000 to 135 in 2002, an increase of 141 percent. In addition, between 1995 and 2002, oxycodone mentions increased 297 percent (from 34 to 135). Methadone mentions remained stable, with 1,304 ED mentions in 2002 and 1,237 in 2001.

According to the Street Studies Unit, OxyContin is available on the street in New York City, but buyers have to know who is selling it. In one area, researchers were able to obtain information that OxyContin was selling for $5 per pill (unknown milligrams), but it was very difficult to get because most dealers sell only the whole bottle, not individual pills. In the Bronx, the SSU continues to report instances of OxyContin being sold to dealers who scrape the top coloring off, reduce the balance of the pill to powder, and mix it with heroin to produce an enhanced high.

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. In 2002, the total increased to 641. (No DAWN mortality data were available for New York City for 2001.) For specific narcotic-type drugs in DAWN ME reports, methadone accounted for 169 deaths in the New York metropolitan area.

According to the SSU, OxyContin sold for $1 per 10 milligrams and $10 for 40 milligrams. MS Contin (morphine) sold for $20 per 60 milligrams.

Marijuana

In New York City, marijuana indicators, which had recently increased steadily and dramatically, appear to be stabilizing (exhibit 5). The total number of marijuana ED mentions increased insignificantly from 2,974 in 1995 to 3,923 in 2002. The rate of marijuana ED mentions in 2002 for the New York City metropolitan area was 47 per 100,000 population, the highest rate in recent years. It equaled the national estimate of 47 per 100,000 population for that year.

Primary marijuana admissions to all treatment programs had been increasing steadily over the past several years. The number increased more than ninefold between 1991 and 2002, from 1,374 to 14,310, the highest annual number (exhibit 5). Although the number fell to 13,471 in 2003, that is still the second highest yearly total for primary marijuana admissions. In 1991, primary marijuana admissions represented less than 5 percent of all treatment admissions; by 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 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 (34 percent) were Hispanic, and 10 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 remains the most sought after illicit substance in New York City. Marijuana purity and availability remain high, while the price fluctuates from a low of $50 for one-quarter ounce and $150 for an ounce to a high of $2,000 per pound for regular. "Hydro" can cost $300–$1,100 per ounce and about $3,000 per pound.

Marijuana is still very popular with inner-city youth. Field researchers have observed youth as young as 12 or 13 smoking "pot" in the parks.

Marijuana continues to be packaged and sold in novel ways. One field researcher reported a Mexican male in his twenties selling a brand of marijuana called "Canna" in the Bronx. It sells for $10 and comes in a small black bag. The buyers at this location were Mexicans and Puerto Ricans age 16–30. In the Bronx, "Coffin" refers to the selling of marijuana in a small plastic container. Three types of marijuana ("Chocolate," "Haze," and "Hydro") are mixed and placed in the plastic container and sold for $20. While during the last reporting cycle "Hydro" was the most popular marijuana on the street, during the last 6 months, different kinds of "Haze" (Purple and Blueberry) have become the more sought-after types of marijuana. Jamaicans in Harlem are selling a "black weed" that is very potent and sought after but very difficult to find.

Teenagers feel that the best way to smoke marijuana is in a blunt cigar. Flavored blunt wraps and cigars are the most popular. Teenagers will sprinkle angel dust or cocaine on the marijuana when rolling their blunts.

Some of the most popular brand names are "White Haze" (also known as "White Widow"), "Black Haze," "Raspberry-flavored Haze," "Blueberry-flavored Haze," "Purple Haze," and "Watermelon Haze."

DAWN ME mentions for marijuana-involved deaths in the New York City metropolitan area numbered 55 in 2002, which was the second highest among CEWG areas. This number represents an increase of 189 percent since 1999.

Adult male arrestees in the ADAM samples for 2003 were much more likely to test positive for marijuana than for any of the other drugs, including cocaine—a change from previous years. Approximately 43.1 percent of male arrestees tested positive for marijuana. Female arrestees were more likely to test positive for marijuana than for opiates, with 36.7 percent of females testing positive for marijuana.

According to National Forensic Laboratory Information System data, 27 percent of the cases for New York City in 2003 (10,783) were related to cannabis.

According to the DEA, marijuana prices can range from $1,000 to $2,000 per pound wholesale and from $3,000 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. The number of arrests has stabilized, however (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 for 2002 (47,250) were at the same level as in 2001, which was the second largest yearly total. For arrests in 2002, approximately 98 percent were for misdemeanors, and 32 percent involved persons age 20 or younger. Moreover, cannabis arrests accounted for 48 percent of all drug arrests in New York City in 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, ADAM arrestee positives, or 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. No adult arrestees in the 2003 ADAM sample tested positive for the drug. While the total number of methamphetamine ED mentions in 2002 was small (63), it reflected a 174-percent increase from 1995 (23 mentions).

There has been some movement involving crystal methamphetamine from the last CEWG reporting cycle. The majority of methamphetamine remains in the gay community, while street sales of methamphetamine have been reported in the Bronx, Brooklyn, and Manhattan. During this period, there have been a number of New York Police Department arrests for sale and possession of methamphetamine. Most of the arrests have been in the Chelsea area of Manhattan, frequented by the gay community.

A field researcher reports that a 15-year-old male Hispanic seller in Brooklyn sells methamphetamine and crack. He sells the methamphetamine, which he refers to as "Tina," for $20 for one-half ounce. He sells crack for $10 per bag. He says that for his own use, he mixes his Tina with crack because it allows the crack high to last longer. In Manhattan, his partner sells methamphetamine, yellow in color, for $25 per one-half ounce and calls it "Hydro."

The information that follows was obtained by field researchers from conversations with gay males about their use of methamphetamine. These users felt that methamphetamine enhanced their sexual appetite and allowed them to participate in sexual activities for long periods of time. One person reported that "the feeling is so great it's indescribable… The first time that I did crystal, it was the best feeling I ever had." Other observations from the SSU were that females reported taking crystal methamphetamine for weight loss, while most heterosexual males were taking crystal to get high.

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 have been increasing since the mid-1990s, while diazepam (Valium) mentions have been declining. Alprazolam mentions increased 92 percent, from 333 in 1995 to 638 in 2002. Clonazepam mentions increased 182 percent, from 117 in 1995 to 330 in 2002. Moreover, clonazepam mentions increased 48 percent from 2000 to 2002 (from 223 to 330). Conversely, diazepam mentions decreased 58 percent from 450 in 1995 to 189 in 2002. Diazepam mentions also exhibited recent declines, falling 43 percent between 2000 and 2002 and 32 percent between 2001 and 2002. Lorazepam mentions remained stable with 143 mentions in 2002. In addition to these specific benzodiazepines, mentions of benzodiazepines not

otherwise specified (NOS) increased 620 percent from 73 in 1995 to 526 in 2002. There continue to be few (about 1 percent) treatment admissions with a psychoactive prescription drug as a primary drug of abuse.

Among ME deaths reported by DAWN, benzodiazepine-involved deaths numbered 115 in 2002, a dramatic 858-percent increase from the 12 reported in 1999.

According to the SSU, pills seen sold on the street include Vicodin ($5 per pill), Dilaudid ($25 per pill), Xanax ($3 for 1 milligram (Footballs), $5 for 2 milligrams), Klonopin ($5 per pill), and Ambien ($3 per pill).

Hallucinogens

Overall, the number of phencyclidine (PCP) ED mentions declined insignificantly from 697 in 1995 to 341 in 2002. The number of mentions in 2001 was 203. Lysergic acid diethylamide (LSD) ED mentions declined significantly from 188 mentions in 1995 to 49 in 2002, a decrease of 74 percent.

In the past few years, PCP-involved deaths have 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.

With regard to ADAM data, 3.9 percent of male arrestees and no female arrestees in New York tested positive for PCP in 2003. The male figure was more than twice that reported for 2002 (1.6).

According to observations by the SSU, there has been an increase the sale and use of PCP or "angel dust" since the last CEWG report. In the Bronx, a 20-year-old Black male was observed selling "Dippy Bo," which is a blunt dipped in PCP. In some areas, this is also called "wet." The buyers were mainly young Black and Hispanics youth in their late teens and early twenties.

In Harlem, angel dust seems to be on the rise among young adults. A field researcher was told by a youth, "You don't need the weed, just the PCP to get high. PCP at $10 a bag is cheaper than weed, and you don't need as much to get high." He said that he and his friends stopped buying marijuana and only buy PCP.

Club Drugs

The SSU continues to report the steady 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 totaled 24 in 1996 and 172 in 2001, the number of mentions declined insignificantly to 143 in 2002.

The number of DAWN deaths involving the category of club drugs (including MDMA, ketamine, gamma hydroxybutyrate [GHB], gamma butyrolactone [GBL], and Rohypnol) totaled 19 in 2002. Although this number is small, it shows a large increase from previous years: four in 1999 and five in 2002.

Although ecstasy remains a club drug and is sold and used mainly in clubs, street sales continue to increase in the Bronx, Manhattan, and Brooklyn to young Black and Puerto Rican youth. Ecstasy remains a drug that is used mainly indoors.

Available as a club drug in New York City, the veterinary anesthetic ketamine produces hallucinogenic 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 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 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 two decades. The human immunodeficiency virus (HIV) first entered New York City in the mid- to late-1970s. AIDS reporting was mandated in 1983, but reporting of HIV infection began in June 2000. Fourteen percent of living AIDS cases in the United States are in New York City, and 17 percent of AIDS deaths in the United States have occurred in New York City.

According to the New York City Department of Health, a cumulative total of 137,168 adult and pediatric AIDS cases were reported in New York City as of March 31, 2003. Overall, reports show that 81,245 New Yorkers have died of AIDS, representing 60 percent of those who have contracted the disease.

As of March 31, 2003, 83,249 New Yorkers were diagnosed with HIV or AIDS; 27,431 were living with HIV (non-AIDS), and 55,818 were living with AIDS. AIDS incidence in New York City peaked in 1993 with

12,658 cases. Mortality dropped sharply beginning in 1996, but New York City residents continue to die of HIV. In 2002, 1,712 people died of HIV-related causes, and 2,448 people with HIV or AIDS died of all causes.

Of the 83,249 persons living with HIV/AIDS (PLWHA) in New York City as of March 31, 2003, 67 percent were diagnosed with AIDS, and 33 percent were diagnosed with non-AIDS HIV. Sixty-nine percent were male, and 31 percent were female. In terms of race/ethnicity, 44 percent were Black, 32 percent were Hispanic, and 21 percent were White. For transmission risk factors, 26 percent (21,686) were men who have sex with men, 25 percent (21,047) had an injection drug use history, 18 percent reported a heterosexual transmission factor, 3 percent had a perinatal transmission risk factor, 1 percent had a transfusion history, and 28 percent had an unknown risk factor or were under investigation.

Persons newly diagnosed with HIV (not AIDS) in 2002 differed from PLWHA in the following ways: they were more likely to be heterosexual and have unknown risk factors (62 percent vs. 45 percent), they were more likely to be Black (53 percent vs. 44 percent), and they were less likely to be an IDU (10 percent vs. 26 percent).

Other findings with regard to HIV/AIDS are that 1 percent of the New York City population is HIV positive; 1.8 percent of Blacks, 1.2 percent of Hispanics, and 0.6 percent of Whites in New York City are HIV positive. Three percent of men in Manhattan are HIV positive; 4 percent of all men age 40–49 in New York City are HIV positive; and 7 percent of Black men age 40–49 in New York City are HIV positive.

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Exhibit 1. Semiannual Cocaine Trends for Selected Indicator Data in New York City: 1995–2003

Year	Semiannual/ Annual Periods	Deaths Involving Cocaine[1]	Cocaine ED Mentions[2]	Treatment Admissions: Cocaine as Primary Drug of Abuse[3]	Cocaine Arrests[4]	Births to Women Using Cocaine[5]
1995	1H		9,915	8,371		
	2H		9,808	7,836		
	Total	908	19,715	16,207	40,846	1,059
1996	1H		11,070	8,561		
	2H		10,522	8,817		
	Total	659	21,592	17,378	38,813	1,005
1997	1H		10,233	9,048		
	2H		9,969	8,401		
	Total	501	20,202	17,449	35,431	864
1998	1H		9,989	8,999		
	2H		9,560	8,573		
	Total	438	19,549	17,572	35,577	742
1999	1H		7,386	8,346		
	2H		7,413	7,567		
	Total	394	14,799	15,913	31,781	626
2000	1H		6,883	7,337		
	2H		7,367	6,722		
	Total	492	14,250	14,059	31,919	490
2001	1H		7,449	7,343		
	2H	–	6,450	7,032		
	Total		13,898	14,375	23,498	438
2002	1H		6,679	7,736		
	2H	421	7,282	7,872		
	Total		13,961	15,608	13,574	363
2003	1H			8,203		
	2H			7,911		
	Total			16,114		

SOURCES: [1]DAWN, OAS, SAMHSA, including New York City, Long Island, and Putnam County through 1995; starting with 1996 the data include New York City only
[2]DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties
[3]New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions
[4]New York City Police Department
[5]New York City Department of Health

Exhibit 2. Characteristics of Primary Cocaine Admissions[1] to State-Funded[2] and Nonfunded[3] Treatment Programs in New York City, by Route of Administration: 2003

Demographic Characteristic	Percent Total (*N*=16,114)	Percent Smoking Crack (*n*=9,793)	Percent Using Cocaine Intranasally (*n*=5,753)
Gender			
Male	67	62	76
Female	33	38	24
Age at admission			
25 and younger	7	5	12
26–35	25	24	27
36 and older	67	71	61
(Average age)	(38.5 years)	(39.0 years)	(37.4 years)
Race			
Black	58	67	43
Hispanic	26	20	36
White	14	11	19
No Source of Income[4]	35	39	29
Some Criminal Justice Status	44	42	47
Readmissions	75	79	69
Age of First Use			
14 and younger	6	5	8
15–19	29	25	36
20–29	43	46	38
30 and older	22	24	18
Secondary Drug of Abuse			
Alcohol	39	41	38
Marijuana	21	19	25
Heroin	6	6	5

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

Exhibit 3. Semiannual Heroin Trends for Selected Indicator Data in New York City: 1995–2003

Year	Semiannual/ Annual Period	Deaths Involving Heroin[1]	Heroin/ Morphine ED Mentions[2]	Treatment Admissions: Heroin as Primary Drug of Abuse[3]	Heroin Arrests[4]	Average Purity of Street Heroin (%)[5]
1995	1H		5,288	9,286		
	2H		5,440	9,001		
	Total	751	10,706	18,287	38,131	(69.4)
1996	1H		5,654	9,161		
	2H		5,478	9,617		
	Total	192	11,132	18,778	37,901	(56.3)
1997	1H		4,900	10,276		
	2H		4,581	10,431		
	Total	272	9,481	20,707	35,325	(62.5)
1998	1H		4,613	10,793		
	2H		4,605	10,203		
	Total	230	9,218	20,996	37,483	(63.6)
1999	1H		4,153	10,690		
	2H		5,150	10,189		
	Total	174	9,302	20,879	32,949	(61.8)
2000	1H		5,378	10,944		
	2H		5,630	10,672		
	Total	194	11,009	21,616	33,665	(62.9)
2001	1H		5,428	11,324		
	2H	–	5,216	11,455		
	Total		10,644	22,779	27,863	(56.0)
2002	1H		4,954	11,357		
	2H		5,443	11,157		
	Total	224	10,397	22,514	34,098	(61.4)
2003	1H			11,540		
	2H			12,023		
	Total			23,563		(53.5)

SOURCES: [1]DAWN, OAS, SAMHSA, including New York City, Long Island, and Putnam County through 1995 (Starting with 1996, the data include New York City only. Prior to 1996, the data include heroin/morphine deaths as well as opiates not specified by type. Beginning with 1996, the data include only heroin/morphine deaths.)
[2]DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties
[3]New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions
[4]New York City Police Department
[5]U.S. Drug Enforcement Administration

Exhibit 4. Characteristics of Primary Heroin Admissions[1] to State-Funded[2] and Nonfunded[3] Treatment Programs in New York City, by Route of Administration: 2003

Demographic Characteristic	Percent Total (*N*=23,563)	Percent Using Heroin Intranasally (*n*=13,983)	Percent Injecting Heroin (*n*=8,751)
Gender			
Male	74	75	74
Female	26	25	26
Age at Admission			
25 and younger	7	5	10
26–35	24	23	25
36 and older	69	72	65
(Average age)	(39.7 years)	(40.1 years)	(39.2 years)
Race			
Black	26	32	16
Hispanic	53	55	51
White	19	12	30
No Source of Income[4]	26	27	25
Some Criminal Justice Status	34	38	26
Readmissions	88	86	91
Age of First Use			
14 and younger	13	11	16
15–19	35	32	41
20–29	34	36	32
30 and older	17	21	11
Secondary Drug of Abuse			
Alcohol	12	13	11
Marijuana	8	9	6
Cocaine	37	34	44

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

Exhibit 5. Semiannual Marijuana Trends for Selected Indicator Data in New York City: 1995–2003

Year	Semiannual/ Annual Period	Marijuana ED Mentions[1]	Treatment Admissions: Marijuana as Primary Drug of Abuse[2]	Cannabis Arrests[3]
1995	1H	1,516	2,171	
	2H	1,460	2,159	
	Total	2,974	4,330	12,357
1996	1H	1,723	2,845	
	2H	1,848	3,185	
	Total	3,571	6,030	18,991
1997	1H	1,939	3,794	
	2H	1,900	3,657	
	Total	3,839	7,451	27,531
1998	1H	1,986	4,554	
	2H	1,696	4,473	
	Total	3,682	9,027	42,030
1999	1H	1,799	5,119	
	2H	1,692	5,100	
	Total	3,491	10,219	43,122
2000	1H	1,856	5,664	
	2H	1,688	5,487	
	Total	3,544	11,151	60,455
2001	1H	1,904	6,677	
	2H	1,598	6,593	
	Total	3,502	13,270	47,651
2002	1H	1,827	7,512	
	2H	2,097	6,798	
	Total	3,924	14,310	47,250
2003	1H		6,844	
	2H		6,627	
	Total		13,471	

SOURCES: [1]DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties
[2]New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions
[3]New York City Police Department

Exhibit 6. Characteristics of Primary Marijuana Admissions[1] to State-Funded[2] and Nonfunded[3] Treatment Programs in New York City: 2003

Demographic Characteristic	Percent of Total (*N*=13,471)
Gender	
Male	79
Female	21
Age at Admission	
20 and younger	34
21–25	24
26–35	25
36 and older	16
(Average Age)	(26.0 years)
Race	
Black	54
Hispanic	34
White	10
No Source of Income[4]	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

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

Drug Use in Philadelphia, Pennsylvania

Samuel J. Cutler and Marvin F. Levine, M.S.W.[1]

ABSTRACT

Indicators remain high for the four major drugs of abuse—cocaine, heroin, marijuana, and alcohol. At the same time, there is an upswing in the number of drugs used in combination and an expansion in the number of different drugs being used. From 2002 to 2003, the average number of drugs detected in decedents increased from 2.68 to 3.18 per case. The estimated rate of 612 drug abuse episodes per 100,000 population in hospital EDs in Philadelphia far exceeded the national estimate (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 2003, 78 percent of male cocaine treatment admissions and 87 percent of female cocaine treatment admissions were crack smokers. 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 10 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 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 December 31, 2003. Data for 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 December 31, 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.) Alcohol cases are only reported in combination with one or more other drugs.

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- **Arrestee urinalysis data** on booked adult male arrestees were derived from reports from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for 2001, 2002, and the third and fourth quarters of 2003.

- **Heroin purity and price data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), through 2003.

- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the Philadelphia Department of Public Health's AIDS Activities Coordinating Office on AIDS cases reported from November 1, 1981, to December 31, 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

The four major drugs of abuse in Philadelphia continue to be cocaine, heroin, marijuana, and alcohol. These are frequently used in combination with each other and with other supplemental drugs. In 2003, 93.5 percent of people entering treatment identified one of these drugs as their primary drug of abuse.

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. The number of mentions of lysergic acid diethylamide (LSD) and gamma hydroxybutyrate (GHB) declined significantly between 2000 and 2002.

In 2003, the average number of drugs detected in decedents by the ME (3.18) exceeded the previous 9-year average (1994 to 2002) of 2.25 drugs per case (exhibit 2). The number of mortality cases with positive toxicology reports (841 in 2003) was the highest on record, going back to at least 1970. Of the 841 deaths in 2003, adverse reaction to drugs accounted for 30.4 percent, followed by overdose (6.3 percent), violence (27.7 percent), and "other causes" (35.6 percent) (exhibit 3). From 1994 through 2002, adverse reaction to drugs (as the identified cause of death) accounted for 56.6 percent, overdose accounted for 3.3 percent, violence accounted for 19.7 percent, and 20.2 percent were attributable to other causes.

In 2003, African-American male decedents (n=310) outnumbered White male decedents (276), while White females (107) outnumbered African-American females (88). The remaining 60 deaths were among Hispanics and Asian Americans. Overall, African-Americans accounted for 47.3 percent of the deaths; Whites constituted 45.5 percent; Hispanics represented 5.6 percent, and Asians accounted for 1.6 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). In 2002, the average was 1.45 drugs of abuse, and in 2003 the average was 1.78 drugs of abuse at admission.

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 demo-

graphic group that recently experienced a statistically significant rate change was the 55-and-older age group; the rate of mentions in this group increased by 33.7 percent from 2001 (20) to 2002 (27). Overall, rates of cocaine ED mentions 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 21 percent more cases in 2003 than in 2002 (exhibit 2). However, the proportion of cases with cocaine present decreased to 39 percent in 2003. Cocaine's presence in decedents had been stable between 44.6 and 47.2 percent from 1999 through 2002. Cocaine was detected in 2,958 decedents from January 1994 through December 2003, more than any other drug appearing in the toxicology reports.

At least one other drug was found in 83 percent of cocaine-positive cases in 2001, 83 percent in 2002, and 85 percent in 2003.

The preliminary treatment data for 2003 show that cocaine, as a primary drug, accounted for 28.1 percent of all treatment admissions, up from 25.8 percent in 2001 (exhibit 4). In 2003, cocaine was mentioned by an additional 16.4 percent as a secondary drug and by 2.9 percent as a tertiary drug. Cocaine treatment admissions peaked in 1991, at 63 percent as the primary drug mentioned at admission to treatment.

In 2003, males accounted for 59 percent of primary cocaine drug treatment admissions (exhibit 5). During this time period, African-Americans accounted for 78 percent of primary cocaine treatment admissions, followed by Whites (15 percent), Hispanics (6 percent), and Asians and others (1 percent). Among primary cocaine treatment admissions in 2003, the average number of drugs of abuse noted upon entering treatment was 1.86.

Since 1999, an average of 82 percent of the primary cocaine admissions reported smoking the drug, 15 percent reported intranasal use, 2 percent reported injecting, and 1 percent reported administering the drug through other/unknown routes (exhibit 5). 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 2003, 78 percent reported smoking the drug; the comparable figure for females was 87 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. These were the fourth and fifth highest percentages 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. In the third quarter of 2003, 29.9 percent of adult male arrestees tested positive for cocaine; 27.6 percent tested cocaine positive in the fourth quarter of 2003.

The predominant form of crack sold in Philadelphia is the "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 from the latter half of 2002 through the spring of 2004. 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 from the spring of 2003 through the spring of 2004 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 59.6 percent in 2003, compared with 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. The average price per milligram pure in Philadelphia was $0.60 in 2003.

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 (184) to 2002 (423). Overall in 2002, rates continued

to be higher among males (153) than females (65) and, by age group, among persons age 26–29 (423).

Heroin/morphine was detected in 2,822 decedents from 1994 through 2003, making it 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 2003, heroin/morphine was detected in only 25 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 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 2003.

In 2003, primary heroin treatment admissions ranked second behind those for cocaine (exhibit 4). Heroin admissions accounted for 22 percent of all admissions in 2002 and for 24 percent in 2003. During 2003, 65 percent of all treatment admissions for heroin, illegal methadone, and other opiates were male (exhibit 6); 63 percent were White, 28 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 2003 used an average of 1.73 drugs.

As depicted in exhibit 6, 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 (and the preliminary figures for 2003) reveal that users of pharmaceutically produced synthetic opiates entered treatment.

Heroin treatment admissions data from the second half of 1997 through 2003 revealed that there is no significant difference in the percent of heroin injectors entering treatment with respect to whether 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. In the third and fourth quarters of 2003, 14.1 and 8.5 percent, respectively, of adult male arrestees tested positive for opiates.

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 in their late teens. Spring and autumn 2003 and spring 2004 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.

Narcotic Analgesics

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 increase of 47.4 percent from 2000 to 2002 (exhibit 1) and an increase of 21.0 percent from 2001 to 2002.

Oxycodone

The nonmedical use of oxycodone products, including OxyContin, Percocet/Percodan, Roxicet, and Tylox, continues to be reported by individuals in treatment.

The rates of oxycodone/combinations ED mentions per 100,000 population were 14, 24, and 26, respectively, in 2000, 2001, and 2002, reflecting a statistically significant increase of 92 percent between 2000 and 2002.

Oxycodone was detected in 318 decedents from 1994 through 2003 (tied for eighth most frequently detected drug during that time period) (exhibit 2). Detections of oxycodone have been rapidly increasing since 2000. In 2003, oxycodone was present in 9.6 percent of all drug-positive deaths.

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

The rate of ED mentions for hydrocodone/combinations increased significantly from 2000 (3) to 2002 (6). Hydrocodone mentions in mortality cases have also increased. There were 40 positive toxicology

ME reports for hydrocodone in 2003 and a total of 188 cases in the 10-year period from 1994 through 2003. Hydrocodone detections now rank 15th among all deaths with positive toxicology reports.

Opioid Analgesics

Fentanyl

In the spring of 2004, the Pennsylvania State Attorney General's Office issued information about the diversion and nonmedical use of fentanyl citrate. In particular, Actiq lozenges were cited as being sold on the streets of Philadelphia for $20 each. Actiq contains fentanyl citrate and is indicated for patients who continue to experience pain while being treated with synthetic opiates. Actiq resembles a lollipop, as the medication lozenge is at the end of a small stick and it is used by rubbing against the inside soft tissue of the mouth. Locally, users call it "Perca-pop" or "Narco-pop." From 1994 through 2003, the ME recorded 35 deaths with the presence of fentanyl. Of these, seven occurred in the first half of 2003, and nine occurred in the second half of 2003.

Marijuana

The estimated rate of marijuana ED mentions in 2002 in the Philadelphia PMSA—150 per 100,000 population—was the highest in the national sample and represented statistically significant increases of 124.2 percent from the 1995 rate of 67 per 100,000 population and 47.9 percent from the 2000 rate of 101 per 100,000 population. The demographic groups that showed statistically significant rate changes were 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 clients who cited marijuana as the primary drug of abuse upon entering treatment increased from 9 percent in 1997 to 18 percent in 2003 (exhibit 4). Among all admissions in 2003, marijuana was mentioned by an additional 11 percent as a secondary drug and by 7 percent as a tertiary drug. In 2003, among primary marijuana admissions, males accounted for 77 percent; African-Americans accounted for 64 percent, Whites accounted for 20 percent, Hispanics accounted for 13 percent, and Asians and others accounted for 3 percent. Among primary marijuana treatment admissions in 2003, the average number of drugs of abuse noted upon entering treatment was 1.63.

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. In the third and fourth quarters of 2003, 40.2 and 49.0 percent, respectively, of adult male arrestees tested positive for marijuana.

Focus group participants in the spring of 2004 continued to report the increasing use of blunts, especially the use of flavored cigars. These groups and outreach workers continued to report that marijuana use is widespread throughout Philadelphia.

The combination of marijuana and PCP, frequently mixed in blunts, is commonly called a "love boat" or "wet" (which is also a term for PCP). It remained a popular combination among users into the spring of 2004. 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 use powder cocaine, vodka, barbiturates, clonazepam, oxycodone, cough syrup, and/or methamphetamine. These comments by users continue to underscore the common practice of multiple drug use, either simultaneously or sequentially.

Phencyclidine (PCP)

PCP began to gain 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."

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 from 2000 to 2002 (exhibit 1). Among hospital ED mentions, the demographic groups that showed statistically significant changes were females, whose rate of PCP 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 421 decedents from 1994 through 2003, making it the fifth most frequently detected drug

during that time period, behind cocaine, heroin/morphine, alcohol-in-combination, and diazepam.

In 2003, PCP was mentioned as a primary, secondary, or tertiary drug by 4.8 percent of all treatment admissions. The average number of drugs of abuse mentioned by primary PCP treatment admissions was 1.92.

In the third and fourth quarters of 2003, 14.7 percent and 14.6 percent, respectively, of adult male arrestees tested positive for PCP.

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 of mentions for benzodiazepines per 100,000 population from 2000 through 2002 were 84, 95, and 95, respectively (exhibit 1). Diazepam, having been detected by the ME in 497 decedents from 1994 through 2003, including 66 cases in 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 13th most frequently detected drug among decedents by the Philadelphia ME (*n*=213) from 1994 through 2003, including 45 cases in 2003.

The preliminary treatment admission reports for 2003 show benzodiazepines as primary drugs of abuse in 67 cases (exhibit 4); however, these drugs were reported as secondary drugs of abuse in 187 additional cases and as tertiary drugs of abuse in 153 more cases. Most of the reports of benzodiazepines as secondary or tertiary drugs of choice indicated that heroin was the primary drug. Those who reported using benzodiazepines as their primary drugs of abuse used an average of two 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.

Deaths with the presence of oxazepam (Serax) have been increasing. In 2003, there were 16 positive toxicology reports for oxazepam, and there were 129 cases in the 10-year period from 1994 through 2003, making oxazepam the 19th most frequently detected drug.

Deaths with the presence of olanzapine (Zyprexa) have been increasing. In 2003, there were 43 positive toxicology reports for oxazepam, and there were 119 cases in the 10-year period from 1994 through 2003. Olanzapine was the 20th most frequently detected drug in 1994–2003.

Other Prescription Drugs of Note

Prescription drugs are most frequently detected among decedents in combination with other drugs of the same type and/or in combination with cocaine, heroin, or alcohol. ME mentions for the most frequently detected prescription drugs among decedents in 2003 included codeine, diphenhydramine, oxycodone, methadone, diazepam, and propoxyphene.

Deaths with the presence of fluoxetine (Prozac) have been increasing. In 2003, there were 23 positive toxicology reports for fluoxetine and there were 148 cases in the 10-year period from 1994 through 2003, making fluoxetine the 17th most frequently detected drug.

Dextromethorphan is a common ingredient in numerous cough and cold medications. Focus group participants in the spring of 2004 indicated that its use is increasing among people age 30–40, particularly in combination with alprazolam and diazepam. The Philadelphia ME detected dextromethorphan in 40 cases in 2003 and in 87 cases from 1994 through 2003.

Diphenhydramine is an ingredient in numerous over-the-counter medications that are abused in Philadelphia. Negative consequences appear most markedly among decedents in combination with other drugs. The Philadelphia ME detected diphenhydramine in 105 cases in 2003 and in 318 cases from 1994 through 2003. In 1994–2003, diphenhydramine was tied for the eighth most commonly occurring drug among decedents.

Medications that contain codeine are also commonly abused in Philadelphia. The ME detected codeine in 120 cases in 2003 and in 373 cases from 1994 through 2003, making it the sixth most commonly detected drug.

Quetiapine (Seroquel), an antipsychotic, has only been on the market for 3 years. Twenty of the total 33 quetiapine detections by the ME occurred in 2003.

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

(exhibit 1). DAWN ED amphetamine rates during the same 5-year period were 8, 9, 10, 9, and 7, respectively. There were 81 deaths with the presence of methamphetamine from 1994 through 2003 and 72 deaths with the presence of amphetamine during that same 10-year period. The ADAM data on adult male arrestees for 2002 indicated that 1.2 percent of booked arrestees reported methamphetamine use within the past 30 days. This was the fifth lowest percentage among CEWG/ ADAM sites.

Annual treatment admissions for methamphetamine/ amphetamines as the primary drug of abuse from 1998 to 2003 were 31, 33, 27, 83, 67, and 33, respectively (exhibit 4). Methamphetamine/amphetamines are rarely identified as a secondary or tertiary drug of choice among treatment admissions in Philadelphia. In the 2002 and third quarter 2003 ADAM study, no adult male booked arrestees were found to be positive for methamphetamine through urinalysis. However, in the fourth quarter of 2003, 1.4 percent of adult male arrestees tested positive for methamphetamine. Focus group members continued to report that methamphetamine is still difficult to obtain, is not usually 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 4th highest among the 22 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 4 cases in 2003.

Focus groups held since spring 2001 have reported that MDMA is used in combination with marijuana and lysergic acid diethylamide (LSD), which helps describe its use among club-goers. Focus groups conducted since autumn 2002 described the MDMA users as evenly split by gender and as ranging in age from teenagers to persons in their early twenties. In the spring of 2004, MDMA was reported as being used in combination with lemonade and alcohol.

The Philadelphia ME first detected methylenedioxyamphetamine (MDA) in the second half of 1999. There have been 24 positive toxicology reports for MDA since then, including 3 cases in the first half of 2003 and 2 cases in the second 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 in 2001, two in 2002, and three in 2003. Focus groups since autumn 2002 reported that ketamine is used in nightclubs, but it is not widely available. Ketamine usually sells for $10 per tablet. Since spring 2003, focus groups have 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.

Gamma hydroxybutyrate (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 3½ 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 December 31, 2003, Philadelphia recorded 16,611 cumulative AIDS cases among adults (exhibit 7). Among those cases, 6,009 involved injection drug users (IDUs) or needle-sharers. Another 864 were in the dual exposure category of IDUs who were also men who had sex with other men (MSM).

Cases reported in 2003 with heterosexual contact as a risk factor continued to exceed the historical average. Heterosexual contact was the identified exposure category in 18.7 percent of all AIDS cases reported through December 31, 2003. In 2003, heterosexual contact accounted for the plurality of cases (41.3 percent) for the third consecutive time.

For inquiries concerning this report, please contact Samuel Cutler, City of Philadelphia, Office of Behavioral Health/Mental Retardation Services, Coordinating Office for Drug and Alcohol Abuse Programs (CODAAP), 1101 Market Street, Suite 800, Philadelphia, Pennsylvania 19107-2908, Phone: (215) 685-5414, Fax: (215) 685-5427, E-mail: <sam.cutler@phila.gov>.

Exhibit 1. Rates of ED Mentions per 100,000 Population in Philadelphia for Selected Drugs: 1995–2002

Major Drugs of Abuse	Year									
	1995	1996	1997	1998	1999	2000	2001	2002	Percent change, 1995, 2002	Percent change, 2000, 2002
Total Drug Mentions	807	837	914	962	953	912	1,071	**1,148**[1]	42.3	25.9
Total Drug Episodes	448	467	496	526	510	481	573	**612**	36.8	27.2
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	**150**	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	
Average Number of Drug Mentions Per Episode	1.80	1.79	1.84	1.83	1.87	1.89	1.87	1.87		

[1]Entries in **BOLD** in the column for 2002 indicate the highest rates across the coterminous United States.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 2. Annual Mortality Cases in Philadelphia with the Presence of the 10 Most Frequently Detected Drugs by the Medical Examiner: 1994–2003

ME-Identified Drugs	Year										Total
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
Cocaine	368	336	277	304	218	238	321	300	270	326	2,958
Heroin/Morphine	262	318	290	336	249	236	332	316	275	208	2,822
Alcohol-in-Combination	253	254	182	214	157	179	197	185	153	290	2,064
Diazepam	58	44	35	58	39	67	46	56	28	66	497
Phencyclidine (PCP)	46	44	29	46	19	35	48	45	51	58	421
Codeine	36	39	19	20	3	15	19	45	57	120	373
Methadone	23	12	26	24	10	36	36	46	55	79	347
Diphenhydramine	18	13	5	4	9	25	33	53	42	116	318
Oxycodone	4	2	1	14	29	17	49	53	68	81	318
Propoxyphene	30	30	27	32	21	22	40	43	31	41	317
Total Deaths with the Presence of Drugs	**617**	**632**	**565**	**607**	**534**	**533**	**680**	**661**	**593**	**841**	**6,263**
Total Drugs Mentioned	**1,346**	**1,245**	**1,121**	**1,282**	**1,039**	**1,232**	**1,637**	**1,857**	**1,589**	**2,672**	**15,020**
Average Number of Drugs Per Death	**2.18**	**1.97**	**1.98**	**2.11**	**1.95**	**2.31**	**2.41**	**2.81**	**2.68**	**3.18**	**2.40**

SOURCE: Philadelphia Medical Examiner's Office

Exhibit 3. Causes of Annual Mortality Cases in Philadelphia, as Determined by the Medical Examiner, by Percent: 1997–2003

ME-Identified Cause	1997	1998	1999	2000	2001	2002	2003
Adverse Effect of Drugs	53.3	60.6	55.7	56.6	56.4	57.7	30.4
Overdose	3.4	3.7	3.8	2.1	3.8	2.5	6.3
Violence by Another Person	17.6	10.7	9.6	13.0	10.0	11.6	17.2
Violence to Oneself	3.7	7.2	6.6	5.6	6.2	5.6	10.5
Other Causes[1]	22.0	17.8	24.3	22.7	23.6	22.6	35.6

[1]Includes deaths with the presence of drugs caused by accident, injury, drowning, or a health or physical malady.
SOURCE: Philadelphia Medical Examiner's Office

Exhibit 4. Treatment Admissions by Primary Drug of Abuse in Philadelphia: 1997–2003

Primary Drug	1997	1998	1999	2000	2001	2002	2003[1]
Cocaine	2,492	1,942	2,232	2,497	2,996	3,649	2,153
Alcohol	1,648	1,477	1,943	1,826	2,366	3,425	1,765
Heroin	1,581	872	2,272	2,041	4,279	2,679	1,858
Other Opiates	51	48	46	73	92	187	173
Marijuana	592	791	862	910	1,428	2,025	1,400
PCP	36	32	49	43	74	188	139
Other Hallucinogens	14	9	9	7	12	12	7
Methamphetamine/ Amphetamines	27	31	33	27	83	67	33
Benzodiazepines	26	32	46	37	89	66	67
Other Tranquilizers	11	6	4	8	1	3	3
Barbiturates	8	13	8	3	8	23	12
Other Sedatives/Hypnotics	12	13	18	16	36	19	19
Inhalants	0	2	0	4	1	0	0
Over-the-Counter	4	7	24	5	2	2	4
Other (Not Listed)	53	17	1	60	154	111	41
Total	**6,555**	**5,292**	**7,547**	**7,557**	**11,621**	**12,456**	**7,674**

[1]Data for 2003 are preliminary and subject to revision.
SOURCE: Pennsylvania Department of Health, Client Information System

Exhibit 5. Cocaine Treatment Admissions in Philadelphia by Route of Administration and Gender: 1999–2003

Route of Administration and Gender	1999		2000		2001		2002		2003[1]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Smoked										
Male	997	(44.7)	1,112	(44.5)	1,377	(46.0)	1,802	(49.4)	986	(45.8)
Female	862	(38.6)	1,002	(40.1)	1,039	(34.7)	1,212	(33.2)	766	(35.6)
Intranasal										
Male	172	(7.7)	198	(7.9)	371	(12.4)	384	(10.5)	243	(11.3)
Female	120	(5.4)	104	(4.2)	140	(4.7)	139	(3.8)	98	(4.6)
Injected										
Male	46	(2.1)	38	(1.5)	30	(1.0)	28	(0.8)	35	(1.6)
Female	13	(0.6)	12	(0.5)	14	(0.5)	8	(0.2)	8	(0.4)
Other/Unknown										
Male	11	(0.5)	16	(0.6)	18	(0.6)	71	(1.9)	7	(0.3)
Female	11	(0.5)	15	(0.6)	7	(0.2)	5	(0.1)	10	(0.5)
Total Male	1,226	(54.9)	1,364	(54.6)	1,796	(59.9)	2,285	(62.6)	1,271	(59.0)
Total Female	1,006	(45.1)	1,133	(45.4)	1,200	(40.1)	1,364	(37.4)	882	(41.0)
Total	**2,232**		**2,497**		**2,996**		**3,649**		**2,153**	

[1]Data for 2003 are preliminary and subject to revision.
SOURCE: Pennsylvania Department of Health, Client Information System

Exhibit 6. Heroin, Illegal Methadone, and Other Opiate Treatment Admissions in Philadelphia by Route of Administration and Gender: 1999–2003

Route of Administration and Gender	1999		2000		2001		2002		2003[1]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Injected										
Male	1,101	(47.5)	870	(41.2)	1,917	(43.9)	1,219	(42.5)	739	(36.4)
Female	576	(24.8)	408	(19.3)	805	(18.4)	541	(18.9)	397	(19.5)
Intranasal										
Male	316	(13.6)	411	(19.4)	733	(16.8)	564	(19.7)	415	(20.4)
Female	215	(9.3)	266	(12.6)	577	(13.2)	260	(9.1)	209	(10.3)
Swallowed										
Male	32	(1.4)	45	(2.1)	99	(2.3)	114	(4.0)	110	(5.4)
Female	19	(0.8)	42	(2.0)	55	(1.3)	66	(2.3)	63	(3.1)
Smoked										
Male	27	(1.2)	37	(1.8)	63	(1.4)	44	(1.5)	33	(1.6)
Female	14	(0.6)	11	(0.5)	40	(0.9)	17	(0.6)	15	(0.7)
Other/Unknown										
Male	12	(0.5)	13	(0.6)	49	(1.1)	32	(1.1)	31	(1.5)
Female	6	(0.3)	11	(0.5)	33	(0.8)	9	(0.3)	19	(0.9)
Total Male	1,488	(64.2)	1,376	(65.1)	2,861	(65.5)	1,973	(68.8)	1,328	(65.4)
Total Female	830	(35.8)	738	(34.9)	1,510	(34.5)	893	(31.2)	703	(34.6)
Total	**2,318**		**2,114**		**4,371**		**2,866**		**2,031**	

[1]Data for 2003 are preliminary and subject to revision.
SOURCE: Pennsylvania Department of Health, Client Information System

Exhibit 7. Adult AIDS Cases in Philadelphia by Exposure Category: Calendar Year 2003 and Cumulative Totals Through December 31, 2003

Exposure Category	January 1, 2003, to December 31, 2003		November 1, 1981, to December 31, 2003	
	Number	Percent	Number	Percent
IDU	311	(30.7)	6,009	(36.2)
MSM and IDU	19	(1.9)	864	(5.2)
MSM	260	(25.7)	6,329	(38.1)
Heterosexual Contact	418	(41.3)	3,106	(18.7)
Blood Products	2	(0.2)	91	(0.5)
No Identified Risk Factor	2	(0.2)	212	(1.3)
Total Adult Cases	1,012	(100.0)	16,611	(100.0)

SOURCE: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

Drug Abuse Trends in Phoenix and Arizona

Ilene L. Dode, Ph.D.[1]

ABSTRACT

All indicators for cocaine have declined; only crack cocaine remains in consistently high demand. Morphine-related indicators continue to decline or remain stable. Clonazepam was reported to be in high demand by heroin addicts who are in methadone treatment programs. The percentage of male and female arrestees testing positive for marijuana has steadily increased for the past 4 years. Apples are reportedly used as surrogate pipes and bongs for smoking marijuana. Most indicators for methamphetamine/amphetamine continue to trend upward. "Ice" dominates street sales, with purity ranging from 71 to 98 percent. During fiscal year 2003, 89 children were found at clandestine methamphetamine laboratories. Abuse of over-the-counter drugs such as Coricidin HBP has risen steadily among adolescents. The Arizona Department of Health Services has changed the reporting for HIV/AIDS to now focus on incidence and prevalence estimates.

INTRODUCTION

Area Description

The population of Arizona 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. 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

- **Drug-induced and drug-related death data** were provided by the Maricopa County Medical Examiner (ME) Office for January 1993–October 2003. All 2003 data are estimated because ME data for July and August 2003 were not available.

- **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, Substance Abuse Bureau, through October 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 March 2004 report and the Adult Deferred Prosecution Program's Cumulative Statistical Report, March 1989–March 2004; data on admissions to outpatient detoxification treatment at Terros, Inc., were provided by the program for July 2002–June 2004; and data on admissions to detoxification treatment from July 2003 to April 2004 were provided by Community Bridges—East Valley Addiction Council. Additional data on statewide treatment admissions were provided by SAMHSA's National Survey of Substance Abuse Treatment Services (N-SSATS), March 2002.

- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for 2000, 2001, 2002, and the first three quarters of 2003.

- **Law enforcement data were provided by the** Drug Enforcement Administration (DEA), Phoenix Office, in their report "Trends in Traffic," July–December 2003. The Arizona Department of Public Safety (DPS) provided data on arrests for drug possession and manufacturing through 2002. Additional information was obtained from the Phoenix DEA Division's Mobile Enforcement Team (MET) and the Scottsdale Police Department. Other information was provided by 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

[1]The author is affiliated with EMPACT– Suicide Prevention Center, Phoenix, Arizona.

Services, Phoenix Police Department, and the Maricopa County Sheriff's Department. Heroin price and purity data were provided by the DEA's Domestic Monitoring Program (DMP) for 2002.

- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** were obtained from the Arizona DHS, Division of Public Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/STD Services, Annual Report, March 2004.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

The peak year for cocaine-related deaths was 1999 (*n*=215), and deaths declined each year thereafter to a projected low of 63 deaths for 2003 (exhibit 1). After 5 years of stability, combined cocaine/morphine deaths decreased by 35.7 percent to a low of 36, compared to a 5-year average of 56 deaths.

A review of the ADAM data for the past 3¾ years reveals a decline of 26.6 percent in the proportion of adult male arrestees testing positive for cocaine, from 31.9 percent in 2000 to 23.4 percent for the first three quarters of 2003 (exhibit 2). The proportion of female arrestees who tested cocaine positive declined 20.2 percent during the same period (from 35.2 percent in 2000 to 28.1 percent in the first three quarters of 2003). Female data are unweighted.

According to the Arizona DHS, 16 percent of clients, excluding alcohol clients, admitted to treatment throughout the State during fiscal year (FY) 2003 were for cocaine (exhibits 3a and 3b).

Data on ED mentions for cocaine revealed a negligible rise, from 1,665 mentions in 1995 to 1,727 in 2002 (exhibit 4).

For the past six reporting periods, the proportion of cocaine treatment admissions to the TASC Adult Deferred Prosecution Program remained unchanged at 29 percent (*n*=4,143) of cumulative treatment admissions (14,376) since March 1989 (exhibit 5a). Seven percent of juveniles tested positive for cocaine during the third quarter of FY 2004 (exhibit 5b).

The Terros, Inc., outpatient detoxification program reported 18 percent of admissions through fiscal year 2003 were for cocaine. Admissions for the largest detoxification program, Community Bridges, revealed 5 percent were for powder cocaine and 15 percent were for crack cocaine during the first three quarters of FY 2004.

Arizona Department of Public Safety data for 2002 reflect a 7.1-percent decline in arrests for manufacturing and sales of opiates and cocaine from 2001 (exhibit 6). Arrests also decreased by 2.7 percent for possession of opiates and cocaine in 2002.

The DEA reported numerous cocaine seizures throughout Arizona during the last quarter of FY 2003 and the first quarter of FY 2004. Seizure quantities ranged from 5 to 60 kilograms. Cocaine remains readily available throughout Phoenix, Tucson, and Nogales. Prices remain essentially unchanged. An ounce of crack cocaine sold for $400–$480 in Phoenix during the last reporting period, and the price was $500–$700 during the current period (exhibit 7).

Demand for crack cocaine remains consistently high. Crack cocaine is available in ounce and pound quantities. Crack cocaine in Phoenix has recently been nicknamed "DUB."

The DEA reported the sale in a Phoenix headshop of lidocaine, an anesthetic drug commonly used as a cutting agent for cocaine. The lidocaine sold for $200 per pound in quantities ranging up to 110 pounds. Another form of lidocaine, referred to as "fish," was sold by the same shop. Reportedly, "fish" is a higher quality, more expensive form of lidocaine. It has a chunky appearance and is flaky in consistency rather than smooth and powdery.

Heroin and Morphine

After 2 years of decline in morphine-related deaths, an increase of 18.4 percent in such deaths was projected for 2003 (exhibit 1).

Estimated rates for heroin ED mentions were 40 per 100,000 population for 2000, compared with 23 per 100,000 for 2002, reflecting a significant decrease of 43.2 percent. The estimated rates for the same periods for the coterminous United States were 38 per 100,000 for 2000 and 36 per 100,000 for 2002. As shown in exhibit 4, heroin ED mentions totaled 485 in 1995 and 672 in 2002, a 38.6-percent increase.

Outpatient detoxification admissions at Terros, Inc., revealed that 49 percent of clients were admitted for heroin, continuing a 3-year downward trend. Heroin admissions to the TASC Adult Deferred Prosecution Program remained stable at 5 percent of the cumulative total (766 of 14,376) from March 1989 to March 2004 (exhibit 5a). Community Bridges detoxification

centers admitted 1,087 individuals for opiate detoxification during the first three quarters of FY 2004; they represented 25 percent of the total 4,290 admissions.

The DEA reported that black tar and brown powder heroin were both readily available in Phoenix. Brown powder can be purchased at street level. Exhibit 7 shows heroin price comparisons for 2001 and 2003. Average purity was reported at 45.3 percent. In calendar year 2003, the average price per milligram pure was $0.42.

The N-SSATS State Profile Arizona 2002 report showed 4,729 clients in opioid treatment programs. Of these, 4,471 were in methadone treatment programs and 158 were in levo-alpha-acetyl-methadol (LAAM) treatment programs.

Other Opiates

Other narcotics-related deaths have exhibited wide variances for the past 5 years. The projected number of deaths (18) for 2003 reflects those for 1998 (20) (exhibit 1). Comparing 2002 data (69) to 2003 projections reveals a 73.9-percent decrease.

DPS 2002 data for arrests for manufacturing and sales of synthetic narcotics reveals a 5.9-percent increase compared with 2001. Arrests for possession of synthetic narcotics continued a steady upward trend, and they accounted for 22.3 percent of substance abuse-related arrests in 2002 (exhibit 6).

Estimates of ED mentions for oxycodone/combinations revealed a 473-percent increase from 1995 (70) to 2002 (401) and a 72-percent increase from 2000 to 2002. Hydrocodone/combinations ED mentions increased from 1995 to 2000, but they remained stable thereafter. This same pattern was evident for narcotic analgesics/combinations ED mentions. Mentions for anxiolytics, sedatives, and hypnotics continued upward trends and increased significantly between 2000 and 2002.

The Phoenix Police Department reported that clonazepam is in high demand by heroin addicts who are in methadone treatment programs. Heroin addicts report consuming clonazepam when in methadone treatment to produce a heroin "high" feeling. Heroin addicts prefer 0.5-milligram tablets because this dosage is not time released. Anything over 0.5 milligrams does not produce the same "high." Tablets sell for $1 per piece and are available near methadone clinics. If a heroin addict cannot obtain a 0.5-milligram tablet, he/she will chew the higher dosage tablet to stop the time-release effect.

Methadone wafers are available for purchase on weekends, after addicts have been given weekend take-home dosages of the drug. The wafers sell for $10–$40. DEA sources reported that a 40-milligram tablet of OxyContin sold for $20–$25 per tablet in the second half of 2003 (exhibit 7). Percocet sold for $5 per tablet, and Vicodin ES sold for $5 per tablet.

Marijuana

Marijuana remains 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.

Estimated rates of marijuana ED mentions increased significantly (188.2 percent) from 474 in 1995 to 1,366 in 2002 (exhibit 4). 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 93.5-percent increase.

The percentage of female arrestees testing positive for marijuana has steadily increased from 23.3 percent in 2000, to 26.5 percent in 2001, 29.2 percent in 2002, and 31.6 percent in the first three quarters of 2003; this reflected an 8.3-percent increase from 2000 to 2003 (exhibit 2). The proportion of marijuana-positive male arrestees increased 7.2-percent during the same period.

Terros, Inc., data for fiscal year 2003 reveals 5 percent of clients seeking detoxification for marijuana. Marijuana was reported as the primary drug of choice by 22.9 percent of clients in the TASC Adult Deferred Prosecution Program during March 1989 through March 2004 (exhibit 5a). Seventy-three percent (n=3,196) of juvenile admissions to the TASC Juvenile Probation Program were for marijuana treatment during the third quarter of FY 2004 (exhibit 5b).

The DPS 2002 data for arrests for manufacturing/sales and arrests for possession of marijuana reflected a 13.6-percent increase for manufacturing/sales and a 7.7-percent increase for possession (exhibit 6).

The prices of wholesale and retail quantities of marijuana remained unchanged from 2001 to 2003 (exhibit 7). Gram quantities were available in 2003, selling for $10–$25 in Phoenix.

The DEA reported the use of apples to smoke marijuana. The apples serve as surrogate pipes and bongs to smoke marijuana. The apple is partially cored from

the top and marijuana is placed inside. Another hole is cut into the side of the apple connecting to the cored out portion. The marijuana is lit from the top of the apple and is smoked from the hole on the side. Reportedly, the apple gives a better fragrance and fruity taste to the marijuana. This method appears to be used by teenagers, since the apple is not considered a drug paraphernalia device. Teenagers believe there is decreased risk of being caught by parents or officials when using the apples to smoke marijuana.

Stimulants

The drug-related death data revealed a 17-percent decrease in methamphetamine-related deaths from 2001 to 2002 (*n*=132) (exhibit 1). The downward trend appeared to continue during 2004. Methamphetamine/combination deaths decreased from 2000 to 2001 (*n*=35), rose to 44 in 2002, and were projected to increase to 71 in 2003 for a 103-percent increase (exhibit 1).

Amphetamine ED mentions increased by 217 percent between 1995 (*n*=453) and 2002 (1,436). Methamphetamine mentions (777 in 1995 and 501 in 2002) for the same report period did not change significantly (exhibit 4).

The percentage of both male and female arrestees testing positive for methamphetamine steadily increased from 2000 to 2003. The proportion of methamphetamine-positive males increased by 19.2 percent; the proportion of methamphetamine-positive females increased by 24.1 percent (exhibit 2).

A statistical summary of the TASC Adult Deferred Prosecution Program revealed that 26.7 percent (3,289) of the March 1989 through March 2004 treatment admissions were for methamphetamine abuse (exhibit 5a). Seventeen percent of the juveniles (*n*=811) in the third quarter of FY 2004 who submitted for drug testing at TASC tested positive for methamphetamine/amphetamine (exhibit 5b). Thirteen percent of admissions to Terros, Inc., were for methamphetamine detoxification, compared to 7 percent for the 2002 report period. Data for Community Bridges detoxification programs show that 23 percent of treatment admissions were for stimulants. Twenty-five percent of treatment admissions through the Arizona Department of Health Services, Division of Behavioral Health, treatment system were for methamphetamines during FY 2003 (exhibit 3b).

The DEA reported that "ice" has dominated street sales throughout Arizona. "Ice" is readily available, and the demand continues to increase. Laboratory test results have shown purity levels of ice to range between 71 and 98 percent. Methamphetamine seizures tripled along the Arizona-Mexico border in fiscal year 2003, when 1,307 pounds of methamphetamine were seized, compared with 398 pounds in 2002. In 2002, only Texas and California seized more kilograms than Arizona.

The Phoenix Clandestine Laboratory Group reported 89 children were present at clandestine laboratory locations in fiscal year 2003. The Arizona Drug Endangered Children (DEC) Program was established in 2000 by Arizona's former Attorney General, Janet Napolitano, to address problems associated with methamphetamine production in homes with children present through a coordinated response by representatives from the Attorney General's Office, State and local law enforcement, Child Protective Services, and medical personnel. A model interagency protocol was developed for the investigation of methamphetamine lab cases with children involved. The protocol includes procedures for taking children into protective custody and arranging for protective services, immediately testing for methamphetamine exposure, conducting medical and mental health assessments, and ensuring short- and long-term care and followup. Information is available through the Arizona Attorney General's Web site at <www.ag.state.az.us/DEC>.

Vita-Flex MSM and Super Inositol are cutting agents for methamphetamine. MSM has replaced caffeine and niacinamide as the preferred methamphetamine cutting agent. MSM adds bulk to the finished product, thereby increasing profits and stretching the supply. MSM can be purchased at feed and tack stores, pet food stores, nutrition centers, and veterinary supply catalogs on the Internet.

Other Drugs

Estimates for ED mentions for selected club and predatory drugs reflected an 89-percent decrease in lysergic acid diethylamide (LSD) mentions from 2000 (*n*=135) to 2002 (15) and a 48-percent decrease for methylenedioxymethamphetamine (MDMA) mentions from 2001 to 2002. Mentions for phencyclidine (PCP) increased 76.6 percent from 2000 (47) to 2002 (83).

No price changes were reported for gamma hydroxybutyrate (GHB): $5–$10 for one dose (1 teaspoon), $425 for 25 pounds, and $700 per gallon. Individual tablet prices for MDMA increased slightly from $15–$30 to $20–$30. Valium sells for $4 per 10-milligram tablet, Lortab sells for $5–$6 per 10-milligram tablet, and Soma sells for $2 per tablet (exhibit 7).

ADAM 2003 data revealed 1 percent of Phoenix female arrestees tested positive for PCP. Of the 21 CEWG cities, only San Diego (1.4 percent), Chicago (5.6 percent), and Washington, DC (12.7 percent) had greater percentages of PCP-positive female arrestees in 2003.

The Phoenix DEA Division's Mobile Enforcement Team (MET) and Scottsdale Police Department completed a 7-month investigation that resulted in 34 arrests and more than $600,000 in drugs, cash, and vehicle seizures. The operation focused on identifying and dismantling organizations that were producing and distributing club and predatory drugs. Ecstasy tablets currently available in Arizona include yellow star, green spade, blue rabbits, and blue squirrels.

Schools, parents, and the media have focused education efforts on reducing the use of over-the-counter and prescription drugs. Dextromethorphan (DXM), a "drug of concern," is available in more than 120 nonprescription cold and cough medicines. The American Association of Poison Control stated that abuse of over-the-counter cold medicines has doubled in the past 4 years. Youth prefer Coricidin HBP because it contains 30 milligrams of DXM, the highest amount of DXM per dosage of any over-the-counter cold and cough medicine. It is swallowed, although it is sometimes ground up and snorted. It is called robo, skittles, triple C's, red devils, rojo, dex, tussin, or Vitamin D. DXM abuse is called "Robotripping" or "Tussing."

Carisoprodol (Soma) captured local headlines when two 16-year-old girls smuggled nearly 3,000 Soma tablets from Puerto Penasco, Sonora, Mexico, with the intention of selling to students in Gilbert and Mesa, Arizona.

HIV/AIDS ANNUAL REPORT

The Arizona Department of Health Services has begun emphasizing capacity-building measures within the State HIV/AIDS epidemiology programs to focus on incidence and prevalence estimates. Information on the current distribution of person living with HIV/AIDS within Arizona is crucial to planning for care and services and prevention efforts. Estimates of incidence are based upon the sum of new HIV cases and new AIDS cases which were not diagnosed as HIV-positive in any prior calendar year. Persons who were diagnosed with both HIV and AIDS in the same calendar year are counted only as AIDS to avoid double counting.

Since 1981, the year for which initial HIV/AIDS cases were reported in Arizona, there have been a total of 9,216 AIDS cases reported to ADHS and 5,573 cases of HIV (non-AIDS) reported to ADHS that were diagnosed in Arizona. There were an additional 1,145 cases of AIDS and 224 cases of HIV reported to ADHS of persons diagnosed outside of Arizona.

Currently 7.5 percent of HIV cases and 56.7 percent of AIDS cases are known to be deceased. The annual number of deaths among persons with AIDS in the State declined in the late 1990s. Between 1999 and 2002, the number of deaths among persons with HIV or AIDS remained level (193 in 1999, 186 in 2002).

Arizona currently has 9,652 persons known to be living with HIV disease, of whom 4,402 have a diagnosis of AIDS. The State has an HIV disease prevalence rate of 184.1 per 100,000 persons. Pima County, the State's second most populous urban county, has the highest prevalence rate of reported HIV disease (212 per 100,000). Pima County, with 16.4 percent of the State's population, has 19.7 percent of the known AIDS prevalence and 18.1 percent of the known HIV prevalence. Maricopa County, the State's most populous urban county, has the second highest prevalence rate of reported HIV disease (207 per 100,000). With 60 percent of the State's population, it has 67.8 percent of known AIDS prevalence and 66.7 percent of known HIV prevalence.

In the past decade, the rate for AIDS diagnoses has shown a steady decline, from 14.7 per 100,000 in 1990 to 9.1 per 100,000 in 2002. The rate for HIV diagnoses appears to be increasing, from 7.0 per 100,000 in 1999 to 8.8 per 100,000 in 2002. The annual rate of AIDS diagnosis in Arizona is approximately 60 percent of the national rate.

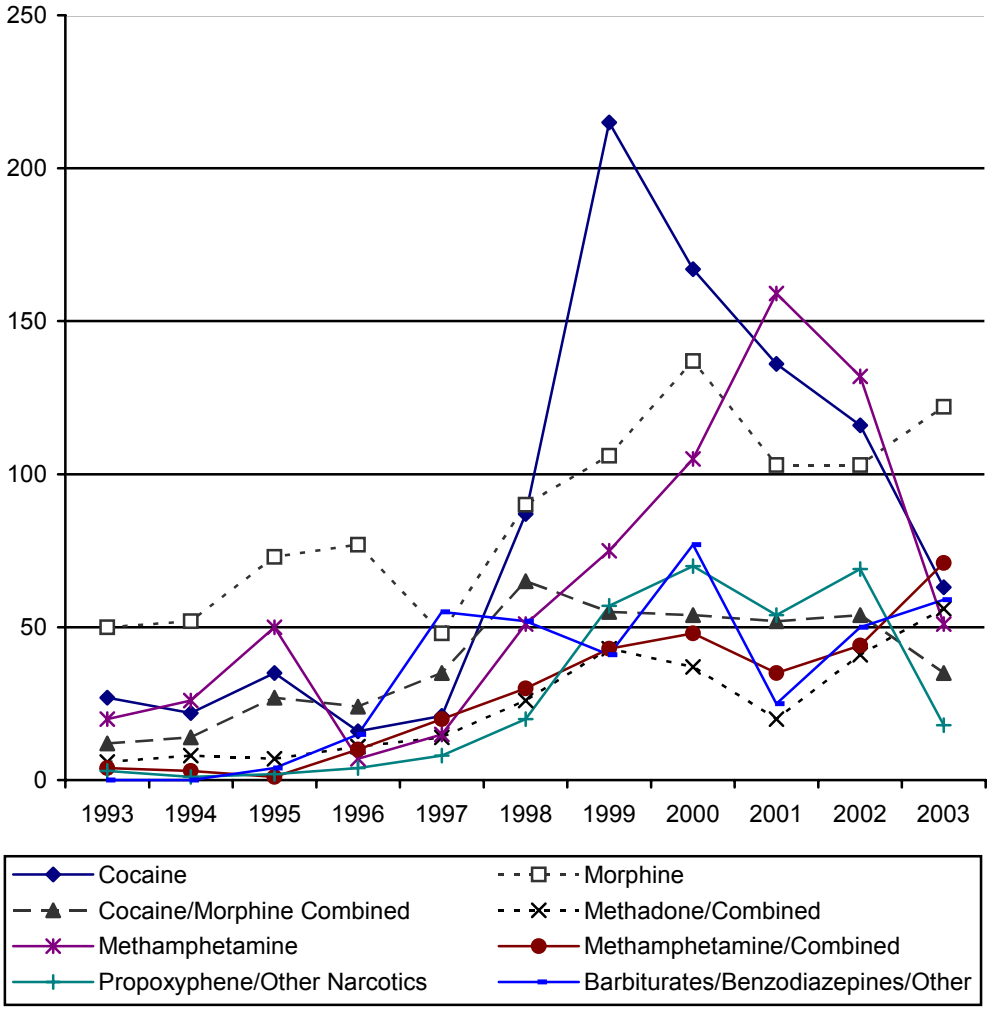
Throughout the epidemic in Arizona, the majority of AIDS and HIV cases have been male, with men accounting for 86.1 percent of all in-State HIV diagnoses, 90.6 percent of all in-State AIDS diagnoses, and 87 percent of current known prevalence. However, the proportion of female cases has been increasing. For the 3-year period from 1985 to 1987, 7.4 percent of AIDS cases were female, whereas during the 3-year period from 2000 to 2002, females accounted for 13.1 percent.

The predominant reported mode of transmission of HIV in Arizona continues to be homosexual contact among men who have sex with men (MSM), which accounts for 70.3 percent of reported new cases of

HIV disease among males (HIV or AIDS) and 62.6 percent of all reported new cases of HIV disease in 2003. After homosexual contact, injection drug use (with or without homosexual contact) accounted for 20.1 percent, and heterosexual exposure accounted for 11.1 percent of reported new cases of HIV disease during 2003.

For inquiries concerning this report, please contact Ilene Dode, Ph.D., EMPACT – Suicide Prevention Center, Inc., 1232 East Broadway, Suite 120, Tempe, AZ 85282, Phone: (602) 784-1514 ext. 116, Fax: (602) 967-3528, E-mail: idode@aol.com.

Exhibit 1. Annual Numbers of Drug-Related and Drug-Induced Deaths in Maricopa County (Phoenix): 1993–2003[1]



[1]Data for 2003 are estimated because ME data were unavailable for July and August.
SOURCE: Maricopa County, Arizona, Medical Examiner's Office

Exhibit 2. Percentages of Adult Arrestees Testing Positive for Selected Substances in Phoenix: 2000–2003

Drug Type	2000		2001		2002		2003	
	Male	Female	Male	Female	Male	Female	Male	Female
Cocaine	31.9	35.2	27.2	31.6	27.8	25.9	23.4	28.1
Heroin	6.6	6.5	6.0	6.3	5.0	5.2	4.0	6.2
Marijuana	33.7	23.3	39.7	26.5	41.1	29.2	40.9	31.6
Methamphetamine	19.1	24.1	25.3	32.3	30.9	41.4	38.3	41.6

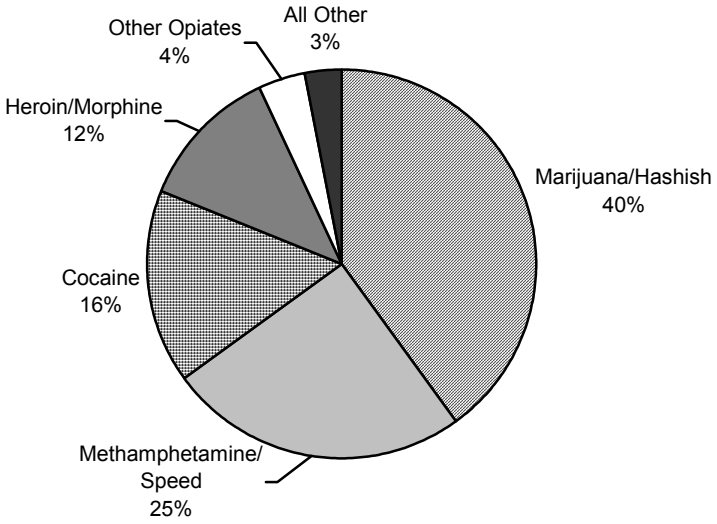
SOURCE: ADAM, NIJ

Exhibit 3a. CEWG Treatment Admissions Data Form for Arizona: FY 2000–FY 2003

Category	FY 2000	FY 2001	FY 2002	FY 2003
Total Admissions (including alcohol)	30,895	34,481	36,449	29,303
Primary Alcohol	18,568	20,674	20,925	16,138
Alcohol only	15,323	14,189	12,187	9,046
Alcohol-in-combination	3,245	6,485	8,738	7,092
Primary Cocaine	2,594	2,628	2,586	2,132
Smoked	1,515	1,543	1,536	1,158
Other	1,079	1,085	1,050	974
Primary Heroin	1,848	2,123	2,180	1,539
Primary Other Opiates[1]	329	586	1,011	557
Primary Marijuana	4,566	5,036	5,598	5,212
Primary Amphetamines[2]	2,579	3,001	3,614	3,272
Methamphetamine	2,344	2,751	3,326	3,176
All Other Primary Drugs	411	431	535	453

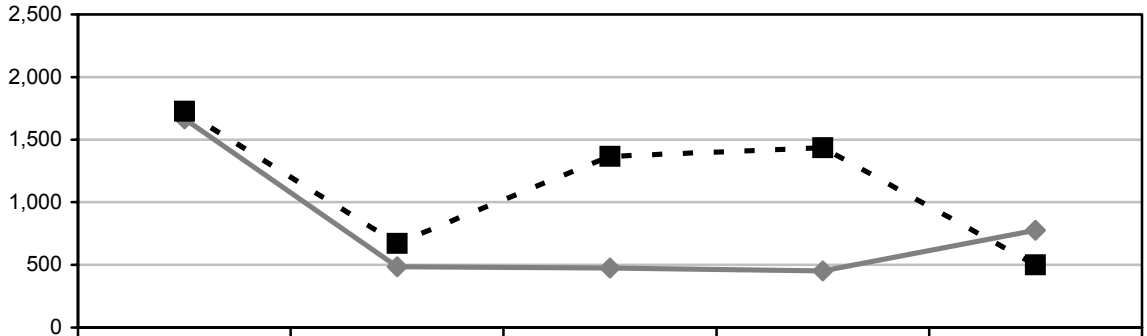
[1]Includes methadone and narcotics other than heroin.
[2]Includes methamphetamine and other stimulants.
SOURCE: Arizona Department of Health Services, Division of Behavioral Health, Bureau for Substance Abuse, Treatment, and Prevention

Exhibit 3b. Primary Substances of Abuse (Excluding Alcohol) in Arizona: FY 2003



SOURCE: Arizona Department of Health Services, Division of Behavioral Health, Bureau for Substance Abuse Treatment and Prevention

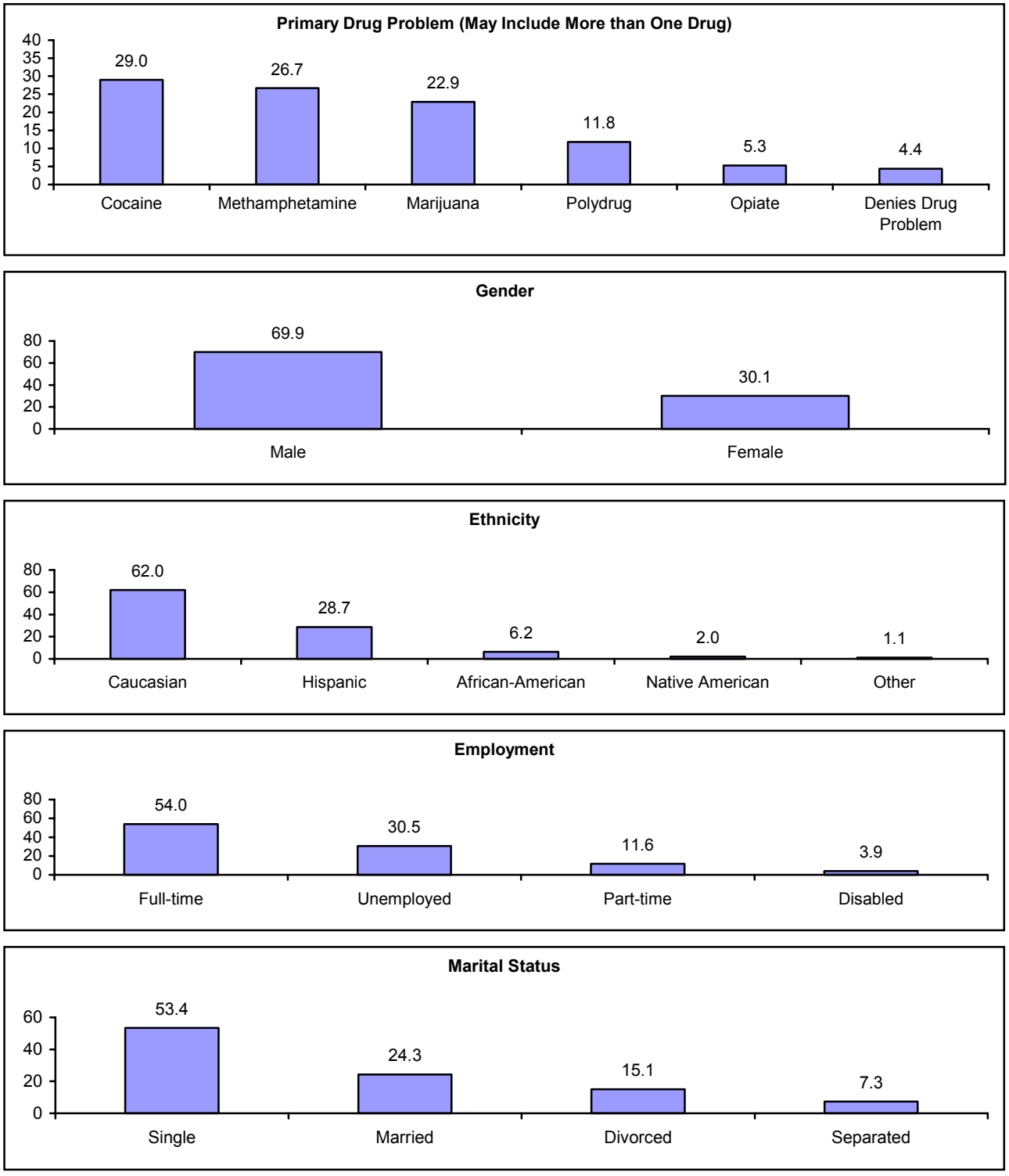
Exhibit 4. ED Mentions in Phoenix for Selected Drugs, by Year: 1995 and 2002



	Cocaine	Heroin	Marijuana	Amphetamines	Methamphetamine
1995	1,665	485	474	453	777
2002	1,727	672	1,366	1,436	501

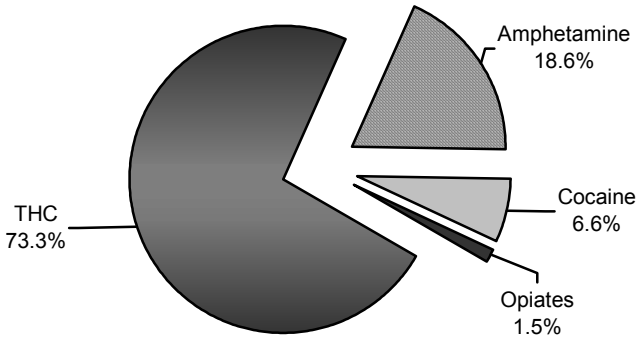
SOURCE: DAWN, OAS, SAMHSA

Exhibit 5a. Adult Deferred Prosecution Program Admissions for Selected Drugs in Phoenix, by Category and Percent: March 1989–March 2004



SOURCE: Adult Treatment and Assessment Screening Center (TASC)—Deferred Prosecution Program, Cumulative Statistical Report

5b. TASC Juvenile Client Drug Positive Drug Test Results, by Drug: January–March 2004



N=4,359
SOURCE: Treatment and Assessment Screening Center (TASC), Client Drug Test Results Summary, Maricopa County Juvenile Probation

Exhibit 6. Substance Abuse-Related Arrests for Manufacturing/Sales and Possession in Phoenix: 1994–2002[1]

Type of Arrest	1994 No. (%)	1996 No. (%)	1997 No. (%)	1998 No. (%)	1999 No. (%)	2000 No. (%)	2001 No. (%)	2002 No. (%)
Manufacturing/Sales								
Opiates/Cocaine	1,030 (21.5)	1,606 (33.0)	564 (12.9)	1,776 (33.3)	1,788 (35.4)	1,635 (32.4)	1,602 (31.6)	1,489 (29.4)
Synthetic Narcotics	629 (13.1)	596 (12.3)	641 (14.6)	760 (14.2)	578 (11.4)	542 (10.7)	573 (11.3)	607 (12.0)
Marijuana	1,456 (30.4)	1,343 (27.6)	1,404 (32.0)	1,084 (20.3)	1,150 (22.7)	1,283 (25.4)	1,310 (25.8)	1,132 (22.3)
Other—Non-narcotics	1,675 (35.0)	1,320 (27.1)	1,778 (40.5)	1,716 (32.2)	1,540 (30.5)	1,587 (31.4)	1,588 (31.3)	1,840 (36.3)
Total Mfg./Sales	4,790	4,865	4,387	5,336	5,056	5,047	5,073	5,068
Possession								
Opiates/Cocaine	1,842 (11.0)	2,752 (13.5)	3,263 (14.5)	4,088 (17.3)	4,081 (17.1)	3,770 (14.7)	3,056 (12.1)	2,972 (11.9)
Synthetic Narcotics	1,812 (10.8)	1,803 (8.8)	2,107 (9.4)	2,223 (9.4)	2,316 (9.7)	2,581 (10.1)	2,613 (10.4)	3,196 (12.8)
Marijuana	10,356 (61.8)	12,939 (63.2)	13,970 (62.2)	13,576 (57.6)	13,519 (56.6)	14,947 (58.3)	15,097 (59.9)	13,936 (56.0)
Other—Non-narcotics	2,743 (16.4)	2,965 (14.5)	3,127 (13.9)	3,678 (15.6)	3,975 (16.6)	4,334 (16.9)	4,436 (17.6)	4,779 (19.2)
Total Possession	16,753	20,459	22,467	23,565	23,891	25,632	25,202	24,883
Total Substance Abuse-Related Arrests	**21,543**	**25,324**	**26,854**	**28,901**	**28,947**	**30,679**	**30,275**	**29,951**

[1]Data for 1995 are unavailable.
SOURCE: Arizona Department of Public Safety, Crime in Arizona Annual Report 2002

Exhibit 7. Drug Prices in Phoenix: July–December 2003

Drug	Phoenix 2001	Tucson 2001	Phoenix 2003	Tucson 2003
Cocaine				
Rock (1/3 gram crack)	N/A	N/A	$20	$20
Eightball	$100–$140	$80–$130	$80–$100	$80–$130
Ounce powder	$500–$600	$500–$650	$500–$800	$500–$650
Ounce crack	N/A	N/A	$500–$700	$550–$700
Kilogram	$15,000–$17,000	$15,000–$18,000	$15,000–$16,500	$14,500–$16,000
Heroin				
A "20" "BB" (80–100 milligrams)	$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/A	$42,000–$50,000	$43,000
Marijuana				
Gram	N/A	N/A	$10–$25	$5–$10
Ounce	$75–$150	$65–$105	$75–$150	$65–$105
Pound	$500–$750	$400–$600	$500–$750	$400–$600
Methamphetamine				
⅛ ounce	N/A	N/A	$150 (ice); $120–$150	$120–$220
½ teener	N/A	N/A	$40	$80–$135
¼ ounce	$125	$275	$250 (ice)	$120–$300
Ounce	$300–$600	$500–$900	$620–$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)

Drug	Dosage	Price
MDMA	1 tablet	$20–$30
OxyContin	40-milligram tablet	$20–$25
Percocet	1 tablet	$5
Vicodin ES	1 tablet	$5
Valium	10-milligram tablet	$4
Lortab	10-milligram tablet	$5–$6
Soma	1 tablet	$2

SOURCES: DEA Phoenix Division Offices, U.S. Customs Service, Arizona Department of Public Services, Phoenix Police Department, Maricopa County Sheriff's Department

Patterns and Trends in Drug Abuse in St. Louis

Heidi Israel, Ph.D., R.N., L.C.S.W.[1] *and Jim Topolski, Ph.D.*[2]

ABSTRACT

Heroin and cocaine indicators remained mixed, while methamphetamine was increasingly prominent in St. Louis indicators. St. Louis and St. Louis County law enforcement personnel continue to devote many resources to methamphetamine, and labs in rural areas continued to be a problem. Club drug use/abuse continued to be sparse and decreasing. 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. PCP ED mentions increased by 93.2 percent between 2000 and 2002. In the St. Louis area, 6,300 cases of HIV were identified through December 2003.

INTRODUCTION

Area Description

The St. Louis metropolitan statistical area (MSA) includes approximately 2.67 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 City'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.

Policy Issues

Some of the indicators, such as treatment admissions for drugs like heroin, appear to be decreasing over the last 5 years, even though other indicators contradict this trend. The State of Missouri passed a Parity in Mental Health bill this last session that stated that mental health should be treated like any other physical illness and receive appropriate services as such. At the "last minute," drug and alcohol abuse was removed as an illness that requires the same protection as other mental health services. Managed care determines most eligibility for treatment services for drug and alcohol abuse, and in the last 5 years, all but a few treatment programs have closed. Limited treatment is available for adolescent drug abusers. This leaves the patient in need of services in a dilemma: receive services under a psychiatric diagnosis in which the medical model is not always the appropriate treatment modality, get on a waiting list for the precious few State-supported slots that still are available, or try to handle the drug or alcohol problem by him or herself. The addiction model as understood through experience and research has shown that treatment services are cost effective to both society and the individual, yet the trend is to not offer these services. The result is that some of these indicators cannot fully reflect the degree of use or abuse of the substances tracked.

Data Sources

The sources used in this report are indicated below:

- **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), for 1994–2002.

- **Drug treatment data** were derived from the Treatment Episode Data Set (TEDS) database through 2003. Private treatment programs in St. Louis County provided anecdotal information.

[1]Dr. Israel is affiliated with the Division of Infectious Diseases, Saint Louis University Medical School, St. Louis, Missouri.
[2]Dr. Topolski is affiliated with the Division of Evaluation, Policy, and Ethics, Missouri Institute of Mental Health, St. Louis, Missouri.

- **Heroin price and purity information** was provided by the Drug Enforcement Administration (DEA), 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 behavioral 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 include racial differences, with Caucasians using methamphetamine and African-Americans using cocaine, and the strong influence of the distribution networks and the "turf" of these networks. St. Louis City drug dealers are primarily African-American, and these traffickers deal cocaine and heroin. Methamphetamine is imported into St. Louis from Mexico or produced locally in the rural areas of the county and State.

Three types of heroin of reasonable purity have continued to be available, but the heroin is not as pure and is more expensive when compared with other cities. This Midwestern city is a destination market, with small entrepreneurial groups marketing the drug. Heroin is available in the suburbs and is not confined to the lower socioeconomic strata in the city.

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 Latino, 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 among 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 2003 compared with all of 2002 (exhibit 1a). Cocaine remained the most common primary drug of abuse among all admissions (34.6 percent), followed by marijuana (27.2 percent) and heroin (10.1 percent). In 2003, the typical cocaine admission was an African-American male age 35 or older who smoked the drug.

Although 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 "eight ball" 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 than in St. Louis at $100–$120. The "rock" price is the same in smaller cities outside St. Louis when it is available, but the gram price is higher.

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 de-

creased, but drug and alcohol use continues to contribute to unsafe sex and multiple partners. Crack cocaine is considered to be a primary risk for HIV in many research trials.

Most cocaine users smoke crack cocaine, though some use powder cocaine. 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.

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 support other reports that heroin use is increasing in the suburbs.

Heroin consistently appears in all indicators. Heroin ED mentions rose steadily and increased significantly from 1995 to 2002, when mentions totaled 1,167 (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 all 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 2003 in the St. Louis region. There are limited slots for admissions to State-funded methadone or modified medical detoxification in Missouri, which may influence this data. While heroin availability increased throughout the region, the decrease in admissions may in fact be a result of lack of adequate treatment resources. Waiting lists are common. When queried, private treatment programs stated that 25 percent of their admission screens were for heroin abuse, but admission depended on "ability to pay." Some heroin abusers in need of treatment utilize "private pay" methadone programs. Rapid detoxification, using naltrexone (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 has made buys of heroin in the region in addition to buys through the DMP. Mexican black tar heroin showed a peak of 24.0 percent purity in 1998 and a drop to 14.4 percent average purity in 2003 (exhibit 1b). Samples of Southwest Asian (SWA) heroin were purchased that had purities of 23.2 percent. South American (Colombian) heroin, which is also white, is of poorer quality, ranging from 13.9 percent. Most heroin is purchased in aluminum foil or the number-5 gel capsule (one-tenth-gram packages of heroin in plastic wrap and aluminum foil) for $20 (exhibit 1b).

Heroin costs range from $1.00 per milligram for SWA heroin to $1.93 per milligram for SA heroin 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 typically of poorer quality. The supply is consistent, 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 poten-

tial 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. Methadone remains at increased levels in ED data, which is probably a result of prescription abuse as well as patient diversion.

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 in 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 2003, when they represented 27.2 percent of all 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 2003. Some of the prevention organizations report a resurgence in marijuana popularity and a belief that it is not harmful to use.

Because of the heroin, cocaine, and methamphetamine abuse problems and the recent "club drug" scare in St. Louis, law enforcement officials have focused less attention on marijuana abuse. Limited resources require establishing enforcement priorities. Often, probation for marijuana offenders requires participation in treatment for younger users who do not identify themselves as drug dependent. In focus groups with African-American adults from various social groups, more than one-half identified regular use of marijuana but did not identify this use as problematic. This ethnographic information supports the 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 2003, 1 pound of sinsemilla sold for $700–$1,800 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 Caucasian.

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 (493 in 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 Ser-

vice (COPS) funding. Thefts of anhydrous ammonia continued to be identified as an issue in rural areas.

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." Most of the available methamphetamine is produced in Mexico and trafficked through these Hispanic traffickers.

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 purity ranging from 20 to 30 percent. Methamphetamine sold for $700–$1,300 per ounce in St. Louis and for as little as $100–$120 per gram in some areas; a slight increase in price over the past year.

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.

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

Hallucinogens

Over the years, lysergic acid diethylamide (LSD) has sporadically reappeared in local high schools and rural areas. Blotters sell for $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 (from 74 to 143).

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. While MDMA remained readily available at raves and other dance parties and cost $20–$30 per tablet, the popularity of the drug seems to be declining. In a behavioral study of club drug users (Cottler et al. 2001), recruiting current users into the study has become more difficult. 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.

No recent GHB incidents or deaths were reported. GHB, the "date rape" drug, 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. While the predominant number of cases is among men who have sex with men (MSM), the largest increase was found among young African-American females, who were infected through heterosexual or bisexual contact, and young homosexual African-American males. As a result, increased specialized minority prevention efforts have been initiated.

Of the total 6,646 persons living with HIV disease identified through May 2004, 5 percent were IDUs and 5 percent involved men who have sex with men and are also IDUs (MSM/IDUs) (exhibit 2). The

number of infected African-Americans was increasing disproportionately among males and females.

SPECIAL PROJECTS AND RELATED HEALTH ISSUES

STD Rate/Hepatitis C

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. A resurgence of syphilis has been identified in homosexual men, and new prevention efforts have been focused on these target groups. 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. 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 and new DNA vaccines and adjuvants are being studied.

Two Phase II trails are in the planning stages.

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Exhibit 1a. Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 1996–2003

Indicator	Cocaine	Heroin	Marijuana	Metham-phetamine
Number of Deaths by Year				
1996	93	51	NA[1]	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	…[2]	0.4	0.7
Other/unknown	2.9	3.1	2.7	4.7
Route of Administration (%) (Last up-date-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 (%) (2003)	34.6	10.1	27.2	4.7
Illicit Drug Admissions (%) (2002)	33.6	10.8	29.6	4.2
Gender (%) (2003)				
Male	54.9	62.5	74.0	54.2
Female	45.1	37.5	26.0	45.8
Age (%) (2003)				4.4
12–17	0.6	0.8	25.5	32.6
18–25	8.0	34.9	40.1	36.5
26–34	24.0	25.6	20.3	26.5
35 and older	67.4	38.6	14.1	
Race/Ethnicity (%) (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 (%) (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

[1]NA=Not applicable.
[2]Dots (…) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.
[3] Dashes (---) indicate than 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: 1996–2003

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 (2002–2003)	Powder $100–$125/g, 70% pure; Crack $20/rock, 50–90% pure; eightball $300	$20/cap or foil $1.00–$1.93/mg pure—depending if MBT, SA, SWA, $250–$600/g, 13.9–23.2% pure	Sinsemilla $700–$1,800/lb, 20% THC; Imported $2,000–$4,000/lb	Methamphetamine $100–$120/g, Mexican (20–30%) and local (70–80% pure); hydromorphone $30–$75/4-mg pill; LSD blotters $2–$7/35 microgram, OxyContin $40/80 mg
Qualitative Data	Readily available, urban choice	Younger users, 1/3 younger than 25	Readily available, 2/3 in treatment younger than 25	Rural/suburban users of amphetamine
Other Data of Note	N/R[1]	3 types of heroin noted	N/R	Methamphetamine lab seizures plateaued

[1]N/R=Not reported.
SOURCES: DEA; client ethnographic information

Exhibit 2. Persons Living with HIV Disease in St. Louis Metropolitan Area by Exposure Category, Gender, Race/Ethnicity, and Age: Year-to-Date and Cumulative Totals Reported Through December 2003

Category	HIV-Positive Test Results			
	January–May 2004		Cumulative Through December 2003	
	Number	(Percent)	Number	(Percent)
Exposure Category				
MSM	61	(50.0)	4,583	(70.0)
IDU	6	(5.0)	301	(5.0)
IDU/MSM	3	(2.0)	319	(5.0)
Hemophilia	0	(0.0)	58	(1.0)
Heterosexual	12	(10.0)	920	(14.0)
Blood transfusion	0	(0.0)	34	(0.2)
Perinatal	0	(0.0)	41	(1.0)
Unknown	41	(33.0)	267	(4.0)
Total	123		6,523	
Gender and Race/Ethnicity				
Male				
White	40	(33.0)	2,914	(45.0)
African-American	62	(51.0)	2,582	(40.0)
Hispanic	1	(0.0)	79	(1.0)
Other	1	(0.0)	19	(0.0)
Unknown	0	(0)	59	(1.0)
Female				
White	4	(3.0)	170	(3.0)
African-American	14	(12.0)	671	(10.0)
Hispanic	2	(0.0)	15	(0.0)
Other	0	(0.0)	13	(0.0)
Age				
12 and younger	0	(0.0)	53	(1.0)
13–19	5	(4.0)	160	(2.4)
20–29	39	(32.0)	1,644	(25.2)
30–39	30	(24.0)	2,799	(43.0)
40–49	41	(33.0)	1332	(20.4)
50 and older	8	(7.0)	522	(8.0)
Unknown	0	(0)	13	(0.0)
Total	123		6,523	

SOURCE: St. Louis Metropolitan AIDS Program

Patterns and Trends of Drug Use in the San Francisco Bay Area

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ABSTRACT

In June 2004, the author conducted a comprehensive review of indicators of use of illicit substances in the San Francisco Bay area. Cocaine use is low compared with the rest of the United States; some indicators suggest a decline in usage between 2001 and 2002 and a leveling off in 2003. Heroin use indicators consistently point to a decline in use from the 1999 peak. Injection remains by far the predominant mode of usage. There are strong indications of an upsurge in use of oxycodone and hydrocodone. Marijuana use appeared to peak in 2001 and has declined substantially since then. All indicators for methamphetamine use were up between 2001 and 2002, and treatment admissions continued upward during 2003. Indicators of use of 'club drugs' reached peaks in 2001, and then declined in 2002; ED and medical examiner mentions remain few compared to those for cocaine, heroin, or 'speed.' The epidemic of HIV among local injection drug users continues to ease, but HCV appears close to full saturation of that population.

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 4,160,000 as of July 2003. 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 cost 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. Reverses in high-technology industries mitigated this pressure during 2001–2003, with unemployment rising from 2 to 6 percent and overall population slightly declining. In the past year, unemployment rates have decreased, and population is once again slowly increasing.

Data Sources

The sources of data for the drug abuse indicators cited in this report 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 1999 through 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 2002, along with comparable data for 1997–2001. The DAWN system covered 100 percent of the metropolitan statistical area (MSA) jurisdiction and 100 percent of the MSA population in 2002.

- **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.

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- **Arrestee drug testing data** for 2003 are from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice, for San Jose and Sacramento for adult males and for San Jose for adult females.

- **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. Preliminary data for 2003 were compared with those for 1994–2002. Data on trafficking in heroin and other drugs were available from the National Drug Intelligence Center's (NDIC) report, "Narcotics Digest Weekly," December 16, 2003. Additional data on trafficking and production were provided by the *National Drug Threat Assessment 2004* publication of the NDIC.

- **Ethnographic information** was obtained through interviews with treatment program staff and outreach workers in May 2004. Their observations were compared with those made in June and December 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 March 31, 2004.

- **Hepatitis B (HBV) data** for San Francisco County were available for 1996 through 2003 and were provided by the SFDPH.

- **Hepatitis C (HCV) virus prevalence** estimates were provided by the Urban Health Study for 2003.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

The number of ED mentions for cocaine remained fairly stable from 1997 to 1998, rose steadily through 2001, and declined slightly in 2002; mentions increased significantly from 2000 (*n*=2,054) to 2002 (2,353) (exhibit 1). The rate of cocaine/crack ED mentions in 2002 was 150 per 100,000 population, nearly 20 percent below the 2000 rate but not significantly different from the rate in 1995. In 2002, the number of ED mentions among persons age 35 and older was nearly 23 percent higher than in 2000.

In the five-county bay area, the overall number of admissions for drug treatment, other than alcohol, declined steadily between 1999 and 2002 and then rose slightly in 2003 (exhibit 2). The proportion of cocaine/crack admissions among these admissions rose from 24 to 26 percent between 2001 and 2003. 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 three bay area counties fluctuated within a narrow range, with no particular trend, between 1997 and 2000 (exhibit 3). In 2002, however, total mentions were 39 percent below the 1997–2000 average.

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 2003, 13 percent of adult male arrestees in San Jose, and 22 percent of those in Sacramento, tested positive for cocaine. The two areas had, respectively, the fourth and ninth lowest proportions of cocaine-positive arrestees among all 39 ADAM sites. For adult female arrestees in San Jose, 10 percent tested cocaine-positive, the second lowest proportion among 25 ADAM sites.

According to the NDIC, local prices for powder cocaine in late 2003 were $15,000–$21,000 per kilogram, $350–$800 per ounce, and $35–$50 per gram—slightly lower than 6 months earlier. Crack prices were around $600 per ounce and $20–$50 per "rock."

To summarize, cocaine use in the bay area is low compared with the rest of the United States. Some indicators suggest a decline in usage between 2001 and 2002 and a leveling off in 2003.

Heroin

ED mentions of heroin reached a peak in 1999 (*n*=3,050) and significantly decreased between 1999 and 2000 (exhibit 1). The number of heroin ED mentions did not change significantly from 2000 to 2002. Compared with 1998, there was a higher proportion of heroin ED mentions age 35 and older in 2002 (68 vs. 72 percent), but there were lower proportions of Whites (24 vs. 15 percent) and Blacks (12 vs. 4 percent).

The number of treatment admissions for primary heroin problems in the five-county bay area fell by more than one-half between 1999 and 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 36 percent in 2003. Injection remains by far the predominant route of use: 80 percent reported that route, compared with 14 percent who reported inhalation as the preferred route.

ME death mentions involving heroin in 2002 were at their lowest level in 6 years (exhibit 3). The count for 2002 was 43 percent below the average for 1997–2000. 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 2003, 3.1 percent of adult male arrestees in San Jose and 6.9 percent of those in Sacramento tested opiate-positive; the median across the 39 ADAM sites was 5.8 percent. Of female arrestees in San Jose, 3.4 percent tested positive, well below the 25-city median of 6.6 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 in 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 by 10 percent, to 6,051, in 2003. 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 2003. The 27 buys were all of Mexican origin. The 2003 samples averaged 11 percent pure and $0.98 per pure milligram (exhibit 4). Of the last 10 years, 2001, 2002, and 2003 were the 3 with the highest average price and lowest average purity.

Prices of Mexican black tar heroin ranged from $9,200 to $30,000 per kilogram and from $300 to $600 per ounce in the second half of 2003. Gram prices ranged from $40 to $60. These prices were significantly lower than in the first half of the year.

In summary, 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

ME death mentions in the overall "narcotic analgesics" category fluctuated within a narrow range in 1997–2000, but they then dropped in 2001 and 2002 to a level 29 percent below the 1996–2000 average (exhibit 3).

Combinations of both hydrocodone and oxycodone ED mentions rose significantly from 1995 through 2002, with those for hydrocodone increasing significantly from 2000 to 2002 and those for oxycodone rising significantly from 2000 to 2002 and 2001 to 2002 (exhibit 1). Local street-based observers concur that use of these drugs is clearly on the rise.

Marijuana

The number of ED marijuana mentions nearly doubled between 1998 and 2001 but then declined by 14 percent from 2001 to 2002 (exhibit 1). In 2002 as compared to 1998, marijuana ED mentions represented a higher proportion of females 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 and 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 was about 10 percent lower than in 2002.

Among adult male arrestees in the ADAM program in 2003, 35 percent of those in San Jose and 49 percent of those in Sacramento tested positive for marijuana. The median across the 39 ADAM sites was 44 percent. Among female arrestees in San Jose, 29 percent tested positive, near the median of 32 percent across 25 sites.

In the second half of 2003, sinsemilla marijuana sold for $5,000–$6,000 per pound. Commercial grade marijuana sold at about $40 per one-eighth ounce. A large, and increasing, quantity of marijuana is sold legally from medical marijuana outlets to certified purchasers. There appears to be effective regulation of price and quality in that new "market."

According to the NDIC, California remains a leading producer of domestic marijuana. The State accounted for more than one-third of outdoor plants eradicated in 2001 and 2002 and more than two-thirds of those eradicated from National Forest Service lands.

Several bay area counties (Alameda, Contra Costa, Lake, Mendocino, Monterey, Napa, Santa Cruz, and Sonoma) were cited as areas where considerable cultivation has occurred in recent years.

The overall indications are that marijuana use peaked in 2001 and has declined significantly since then.

Stimulants

Local observers report no significant changes in the "speed" scene during the past year.

The number of methamphetamine/speed ED mentions remained stable from 1998 and 1999 to 2000, but such mentions increased significantly from 2000 to 2002 and 2001 to 2002 (exhibit 1). Nearly three-quarters of the ED mentions in 2002 were male, but the cases representing females increased significantly from 2000 to 2002. In 2002, nearly 41 percent represented Whites, and 44 percent 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 1999 and 2003 (exhibit 2). The proportion of primary speed users among all nonalcohol drug admissions rose from 13 percent in 1999 to 23 percent in 2003. It was noteworthy that fully 64 percent of speed users claimed smoking as the preferred route; 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 compared favorably with other studies of drug users referred to treatment by criminal justice 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 fell from 58 in 1999 to 32 in 2001 and 38 in 2002 (exhibit 3). Of the methamphetamine-related death mentions in 2000, males accounted for 93 percent, and the median age was 40.

Two nearby metropolises that are ADAM sites may give some indication of the methamphetamine situation in San Francisco. In Sacramento and San Jose, respectively, 38 and 37 percent of male adult arrestees tested positive for methamphetamine in 2003. These were the third and fourth highest proportions of methamphetamine-positives among male adults in all 39 ADAM sites. Among the female arrestees, 45 percent tested positive, the fourth highest among 25 ADAM sites.

According to the NDIC, in the second half of 2003, pounds of "crystal" methamphetamine sold in the $12,000–$16,500 range, ounces in the $1,200–$1,600 range, and grams in the $80–$125 range—slight increases from the first half of the year. The DEA San Francisco Field Division reports that Mexican criminal groups control the local wholesale and midlevel distribution. Several counties near the bay area (Alameda, San Mateo, Santa Clara, Sacramento, San Joaquin, Stanislaus) have been sites for "super labs," capable of producing 10 pounds or more of methamphetamine per production cycle.

All indicators for methamphetamine use were up between 2001 and 2002, and treatment admissions continued to rise during 2003.

Depressants

ED mentions of benzodiazepines averaged about 55 per month during 1997–2000. Mentions decreased significantly from 2001 to 2002, to 657 (exhibit 1). Mentions returned close to the 1997 rate of 46 during 2002, at 42 per 100,000 population. ME mentions dropped from a 1999–2001 average of 54 to 34 in 2002 (exhibit 3).

Hallucinogens

Lysergic acid diethylamide (LSD) ED mentions increased significantly from 1998 to 2000, but they decreased significantly from 2000 onward. Phencyclidine (PCP) mentions also decreased significantly from 2000 to 2002, when they totaled 50 (exhibit 1).

Club Drugs

Ethnographic observers concur that methylenedioxymethamphetamine (MDMA or "X") is widely available, with street prices in the range of $20–$30 per "tab." The annual count of ED mentions for this drug rose significantly from 1998 to 2000 and 1999 to 2000, and from 2000 to 2002, but MDMA ED mentions decreased by 15 percent from 2001 to 2002 (exhibit 1). ED mentions of two other club drugs—gamma hydroxybutyrate (GHB) and ketamine—also declined significantly from the 2000 peaks (exhibit 1). The actual number of club drug mentions remains small, though, compared with mentions for cocaine or methamphetamine. The same is the case for ME mentions (exhibit 3).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

AIDS

San Francisco County had a cumulative total of 29,101 AIDS cases through March 31, 2004, an increase of 588 (2.1 percent) from the total reported through March 31, 2003. Of these cases, 2,044 (7.0 percent) were heterosexual injection drug users (IDUs), an increase of 57 (2.9 percent) in a year. Another 3,670 AIDS cases (12.6 percent) were men who had sex with other men (MSM) and also injected drugs; this number increased by 57 or 1.6 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 all of these groups. AIDS data among transgender San Franciscans have been collected only since 1996, but the cumulative total of cases—312—is a surprisingly large proportion of an overall transgender population estimated at 3,000.

Among San Franciscans diagnosed in 2003 and 2004, heterosexual IDUs accounted for 16 percent, up from 10 percent among those diagnosed in 1994–1996, 14 percent of those diagnosed in 1997–1999, and 14 percent of those diagnosed in 2000–2002. However, the overall case numbers in 2003–2004 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 13 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 over-representation of Blacks, while the gay male IDU demography is similar to that for male speed users.

Data from the Urban Health Study, which conducts semiannual surveys, indicate that in 2003 seroprevalence of heterosexual IDUs in San Francisco remained within the same 6–10 percent range that has prevailed for the past 15 years. By contrast, HIV prevalence among MSM/IDUs had ranged around 40 percent in the late 1980s, dropped to around 25 percent in the late 1990s, and rose again to the 30–35 percent range in 2003. The 2003 data showed extensive self-reported past-month injection of cocaine (21 percent) and amphetamines (30 percent), as well as heroin (68 percent). A surprisingly low proportion (approximately 15 percent) of heterosexual HIV-positive IDUs reported being on drug treatment for their condition.

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 HBV in San Francisco County rarely deviated from a pace of about one per week. The pace dropped in 2002 to about one every 12 days and then rose in 2003 to about one every 8 days.

Hepatitis C

Urban Health Study (UHS) data from 2003 disclosed that fully two-thirds of all IDUs in the sample self-reported HCV seropositivity. UHS staff believe, on the basis of earlier HCV antibody testing, that true prevalence is between 90 and 95 percent. This has enormous implications for the long-term health of San Francisco's IDU population—not only the current user population estimated at 18,700, but also the possibly much larger number with past (or future) injection drug use. "Coinfection" is also a serious problem; a 2003 study by the University of California at San Francisco found that 73 percent of homeless and marginally housed people with HIV were also infected with hepatitis C.

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Exhibit 1. Numbers of ED Mentions in San Francisco for Selected Drugs: 1997–2002

Drug	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
Total Mentions	**13,487**	**12,520**	**12,700**	**12,171**	**13,743**	**13,085**

SOURCE: DAWN, OAS, SAMHSA

Exhibit 2. Admissions to Drug Treatment Programs in the San Francisco Bay Area by Primary Drug of Abuse: 1999–2003

Drug	1999	2000	2001	2002	2003
Cocaine	8,727	7,718	7,428	6,746	7,076
Heroin	19,763	17,416	14,673	11,461	9,732
Amphetamine	4,595	4,469	5,073	5,636	6,392
All Drugs	36,069	32,034	30,920	28,329	27,303

SOURCE: California Department of Alcohol and Drug Programs (DADP)

Exhibit 3. Medical Examiner Drug Mentions in Three Counties (Including San Francisco): 1997–2002

Drug	1997	1998	1999	2000	2001	2002
Cocaine	127	158	158	146	106	90
Heroin/Morphine	159	164	192	148	117	95
Methamphetamine	49	45	58	45	32	38
Narcotic Analgesics	156	185	198	164	124	125
Benzodiazepines	71	62	50	55	56	34
Club Drugs[1]			6	6	5	4

[1]Includes MDMA, ketamine, GHB, GBL, and Rohypnol.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 4. Price and Purity of Heroin Samples, 1994–2003

Year	Price Per Pure Milligram	Purity (Percent)
1994	$0.95	29
1995	$0.83	35
1996	$0.83	24
1997	$0.63	26
1998	$0.33	26
1999	$0.47	20
2000	$0.70	15
2001	$1.40	10
2002	$0.99	12
2003[1]	$0.98	11

[1]Data for 2003 are preliminary.
SOURCE: DEA, DMP

Recent Drug Abuse Trends in the Seattle-King County Area

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ABSTRACT

Over the past 7 to 10 years, the average number of drugs used among those attending emergency departments or dying from drug-related causes has increased by 17 and 27 percent, respectively. Much of the increase in the number of drugs involved in deaths is related to prescription medications, such as sedatives/anxiolytics/depressants and prescription opiates. Cocaine continues to be a major drug of abuse among those arrested and seen in EDs, while cocaine-related deaths are near the lowest level in 10 years. Heroin/opiate-related deaths are near the low point for the past 10 years; ED mentions remain unchanged, while new admissions to treatment have declined. Prescription opiate mentions in emergency departments have declined somewhat, while deaths involving prescription opiates continued to climb. Methamphetamine indicators have mostly leveled off at higher levels, while deaths are at a new high. MDMA use appears to have peaked in 2000–2001, with a subsequent decline. Use of muscle relaxants was examined, and while use is reported in the community, the level of morbidity and mortality is relatively low. Hepatitis B and C infections are widespread among injection drug users (IDUs). HIV prevalence and incidence remain low among IDUs.

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.

According to the 2000 census, the population of King County is 1,737,034. King County's population is 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 percent and 15.2 percent, respectively.

Data Sources

Information for this report was obtained 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), 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 and neighboring Snohomish Counties combined.

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- **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, 2003. Data are included for all treatment admissions that were funded by public funds. Department of corrections and private pay clients (primarily methadone) are included.

- **Drug-related mortality data** were provided by the King County Medical Examiner (ME). Data for the second half of 2003 are preliminary. The data include deaths directly caused by licit or illicit drug overdose and exclude deaths caused by antidepressants in isolation and by poisons. Totals may differ slightly from drug death reports published by the King County ME's office, which include fatal poisonings. 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.

- **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 2003 are included in the narratives for cocaine, opiates, marijuana, phencyclidine (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) Domestic Monitor Program (DMP). Preliminary data are included from 2003. Data from the U.S. Customs Service relating to the seizures for 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. The latest data are complete through 2003.

- **Methamphetamine production data** are from the Washington State Department of Ecology (DOE), which is mandated to respond to and document all "Methamphetamine Incidents," including operating labs, dump sites, and other sites associated with the manufacture of methamphetamine.

- **Forensic drug analysis data** are from the National Forensic Laboratory Information System (NFLIS), which distributes data from the Washington State Patrol's Toxicology Laboratory on drug test results on law enforcement seizures. These data include the top 25 drugs identified in 2003.

- **Data on infectious diseases related to drug use**, including the human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), and hepatitis, were provided by two sources. One 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 (2001 through 2003), and the United States (2000 through 2002) are provided by Public Health-Seattle and King County (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 2000 and 2003.

- **Drug-related help-line data** are from the Washington State Alcohol/Drug Help Line (ADHL), which provides confidential 24-hour telephone-based treatment referral and assistance for Washington State. Data are presented for 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 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.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

The rate of cocaine-involved ED mentions was 164 per 100,000 population in 2002, up 42 percent from 1995 (not statistically significant) (exhibit 1a). During this same time, the rate of ED mentions for all illegal drugs increased 31 percent, the rate of increase for ED visits for any reason was 9 percent, and the rate of increase for drug episodes for illegal and legal drugs was 12

percent (not statistically significant). An average of 1.9 drugs were mentioned per episode in 2002, up 17 percent from 1995 indicating an increase in poly-drug/medication use. Cocaine was the most common illegal drug mentioned in emergency departments in Seattle and was second only to alcohol-in-combination among all substances identified.

In 2003, 39 percent of all people newly admitted to treatment mentioned cocaine as one of the top three drugs that they used, down from 45 percent in 1999 (exhibit 2). A higher proportion of women than men in 2003 were using cocaine—45 percent of all women admitted to treatment and 36 percent of all men (exhibit 3). Adults mentioned cocaine much more often than youth, 44 percent compared to 9 percent in 2003 (exhibit 7). Cocaine was the most commonly mentioned illicit drug in 2003 among adults.

Cocaine-involved deaths returned to lower levels in 2003 following peaks in 2002 and 2000 (exhibits 5 and 6). Over the long-term, cocaine-involved deaths are up, with 52 in 2003 compared with 24 in 1987. One in five deaths in which cocaine is identified are related solely to cocaine, according to medical examiner data from 1997 through 2003 (exhibit 7). Of the 490 cocaine-involved deaths during this period, 94.4 percent were ruled accidental, with 4.4 percent noted to have an undetermined cause of death, a very high proportion similar to amphetamines and just above the level of accidental deaths for heroin/opiates (exhibit 8).

The number of cocaine seizures by the U.S. Customs Service remained fairly steady with 16 in the first half of 2003, similar to 2001 to 2002, when there were 19 to 13 per half-year period, respectively. At the same time, the amount seized 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.

In 2003, 37 percent of arrestees had urine tests positive for cocaine, similar to levels seen in 2002 and higher than levels for 2000 and 2001 (exhibit 9). Cocaine and marijuana were identified at the same proportion in 2003. It is important to note, however, that cocaine is retained in urine for up to 4 days, compared to 20 for cannabinoids. Self-report data from the second quarter of 2003 point to the form of cocaine used. Crack cocaine was used by 26 percent of all arrestees interviewed and powder cocaine by 21 percent in the 12 months prior to arrest. Use levels in the prior 30 days were 21 percent for crack and 13 percent for powder.

Toxicology tests on law enforcement drug seizures in 2003 reveal that 45 percent of such tests done at the Seattle area lab were positive for cocaine, compared with 22 percent for the rest of the State (exhibit 10). The proportions for methamphetamine were roughly the inverse, demonstrating the substantial hold that cocaine continues to have in the urban Seattle area.

The NW HIDTA reported that the street prices of cocaine were $50–$100 per gram, $550–$900 per ounce, and $10,000–$25,000 per kilogram. Intelligence reports indicate that powder cocaine is increasingly more available in King County and other areas of the State. Crack cocaine is found mainly in the major metropolitan regions.

The number and proportion of cocaine-related calls to the ADHL for adults increased in the first half of 2003, while youth numbers remained fairly stable. Cocaine was 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

The rate of heroin-involved ED mentions is second only to that for cocaine among illegal drugs in King and Snohomish Counties. 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 (exhibit 1a).

The proportion of new patients in treatment who mentioned heroin as one of their top three drugs of choice declined from 26 percent to 20 percent from 1999 to 2003 (exhibit 2). The high level of treatment admissions in the recent past was related to funding availability, not changes in demand for treatment, which has remained high. More women than men reported using heroin: 24 percent versus 17 percent in 2003 (exhibit 3). Few youth, 2 percent in 2003, mention heroin use at admission to treatment (exhibit 4).

Deaths involving heroin are near their lowest level since 1992, with 62 such deaths in 2003 (n=58) (exhibits 5 and 6). A spike in heroin-associated mortality was evident around 1998, when there was a peak of 144 heroin-involved deaths, 65 of which were due to heroin alone (exhibit 7). This spike was during a time of relatively high-purity heroin, 21 percent, compared to 10 percent in 2003 (exhibit 11).

The primary form of heroin on the streets is Mexican black tar. All DEA DMP buys of heroin that have been positively identified were found to be Mexican in origin. China white, a common form in 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.

Opiates were identified in approximately 10 percent of adult male arrestees' urine tests for each of the years from 2000 to 2002, and their presence declined to 7 percent in 2003 (exhibit 9). In the prior 12 months, 9 percent of arrestees reported heroin use, with 6 percent reporting such use in the prior month, according to data gathered in the second quarter of 2003.

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, with those in the first half of 2003 similar to prior years: three seizures totaling less than 9 pounds. 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.

Data for King County from the Northwest HIDTA for 2003 showed the following prices for Mexican black tar heroin: $30–$150 per gram, $400–$900 per ounce, $8,000–$10,000 per pound, and $16,000–$25,000 per kilogram.

Other Opiates/Prescription Opiates

For the purposes of this report, "other opiates/prescription opiates" include codeine, dihydrocodeine, fentanyl, hydrocodone, methadone, oxycodone, propoxyphene, sufentanil, tramadol, hydromorphone, pharmaceutical morphine, acetylmethadol, and the "narcotic analgesics/combinations" reported in the DAWN ED data.

The rate of narcotic analgesics/combinations-involved ED mentions decreased by 21 percent in 2002 from the peak in 2001, while longer term it increased 85 percent from 1995 to 2002. Narcotic analgesics/combinations-involved ED mentions, 95 per 100,000 in 2002, were more common than marijuana-involved mentions (65 per 100,000) and less common than heroin-involved mentions (128 per 100,000) (exhibit 1b). Narcotic analgesics were the most common class of drugs mentioned among the psychotherapeutic and central nervous system (CNS) drug categories. Methadone was the type of narcotic anlagesic most commonly identified, constituting 21 percent of all narcotic analgesic mentions. However, the number of methadone-involved mentions declined by nearly one-third from 2001. Oxycodone-involved mentions represented 18 percent of narcotic analgesic-involved ED visits in 2002. Trends in oxycodone varied by formulation: oxycodone in combination with acetaminophen (e.g., Percocet®) stayed level for the prior 8 years, while oxycodone as the sole drug (e.g., OxyContin®) increased from a rate of 0 to 11 per 100,000 from 1995 to 2002.

Approximately 2 percent of people admitted to treatment mentioned prescription opiates as their primary drug. The number of treatment admissions for prescription opiate use increased from 343 in 1999 to 921 in 2003 for adults and from 6 to 41 for youth during the same time period. Only data on use of prescription opiates as the primary drug are available. 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 analyses also indicate that private-pay methadone treatment clients are more likely to report prescription opiate use than those who receive public funding.

Other opiates were identified in 84 deaths in 2003 (exhibit 6), 5 of which involved no other drugs (exhibit 7). The total number of prescription opiate-involved deaths has tripled since 1997; this increase is due almost entirely to prescription opiates in combination with other drugs. The most common types of other opiates in drug-involved deaths in 2003 were methadone (n=47), hydrocodone (12), and oxycodone (14); this represented an increase for methadone and hydrocodone, but a decrease for oxycodone from 2002 to 2003 (exhibit 12).

What constitutes a prescription opiate-related death is unclear, however, particularly among opiate-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 cause of death in 11 percent of deaths involving prescription opiates in 1997–2003 was ruled to be undetermined (exhibit 8). The source and form of prescription opiates involved in deaths are often undetermined as well.

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 for 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.

Prescription opiates represented 78 of the 3,212 exhibits (2.4 percent) tested by the Seattle area toxicology laboratory on samples submitted by local law enforcement. For the remainder of the State excluding the Seattle area lab, 400 of the 12,332 samples (3.3 percent) were positive for prescription opiates.

Marijuana

Marijuana continues to be one of the most widely used illicit substances in the area. ADAM data show that 37 percent of arrestees tested positive for the drug during 2003, similar to prior years (exhibit 9). Fifty-five percent and 44 percent of arrestees reported marijuana use in the prior 12 months and 30 days, respectively, in the second quarter of 2003.

DAWN ED data indicate that marijuana remained the third most common illegal drug mentioned, with a rate of 65 per 100,000 in 2002 (exhibit 1a). This rate was lower than that in 2001 (75) and up slightly from 1995, when it was 53 per 100,000 (not statistically significant). Fifteen percent of illegal drug mentions involved marijuana in 2002. Approximately 84 percent of those who mentioned marijuana were also using other drugs at the time of the ED visit.

One-half of people entering drug treatment mentioned current use of marijuana as one of their top three drugs, similar to the prior 4 years (exhibit 2). A higher proportion of males than females reported marijuana use, 54 versus 44 percent in 2003 (exhibit 3). Marijuana was the only major illicit drug for which a smaller proportion of users were female. Marijuana use was reported at far higher levels by youth than adults, 92 and 43 percent, respectively (exhibit 4).

Law enforcement seizures of marijuana in 2003 constituted similar proportions of all toxicology lab drug tests done in the Seattle area (17 percent) and in the rest of Washington (16 percent) (exhibit 10).

Marijuana has been surpassed by cocaine as the drug most commonly cited among all callers to the ADHL. Marijuana represented 21 percent of the calls, while cocaine represented 30 percent of calls. A substantial difference between adults and teens is evident, with approximately three times the percentage 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 for marijuana, decreased again in the first half of 2003. The percentage of all calls citing marijuana declined slightly from 24 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–$40 per gram, $250–$500 per ounce, and $2,200–$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 plants seized increased 50 percent to 66,806 in 2003, compared to 2002. Approximately two-thirds of these plants were from outdoor grow operations. The number of growing operations seized by law enforcement increased from 342 to 445.

Stimulants

DAWN ED mentions for amphetamines in Seattle-King County peaked in 2000 and 2001 at 32 and 33 per 100,000 population, respectively, and declined to 21 per 100,000 in 2002 (exhibit 1a). Those age 18–25 were most likely to mention amphetamine use, followed by 26–34-year-olds.

Methamphetamine rates peaked in 2000, declined in 2001, and rose again in 2002 to 25 per 100,000, an 81-percent increase relative to 1995. As a proportion of ED episodes, the Seattle area ranked third in the nation for methamphetamine, after Los Angeles and San Diego. As with amphetamines, methamphetamine users were most likely to be between 18 and 25, followed by 26–34-year-olds.

Whites represented the majority of amphetamine mentions, 72 percent, and methamphetamine mentions, 76 percent, in 2002. 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 those entering treatment for less than 1 percent in 2003, similar to past years. The proportion of treatment admissions for methamphetamine as a drug of abuse increased substantially from 1999 to 2001 and leveled off in 2002 at 14 percent (exhibit 2). A higher

proportion of female than male admissions were for methamphetamine, with 17 percent of females and 12 percent of males citing methamphetamine as a drug of abuse (exhibit 3). Of all the illicit drugs, the proportion of youths and adults reporting methamphetamine abuse were the most similar, at 10 and 15 percent, respectively, in 2003 (exhibit 4). In 2003, methamphetamine use among males who identified as gay, bisexual, transsexual or questioning of their sexual identity was more than double that of those identified as heterosexual, 24 percent compared to 11 percent; for females the difference was minor (20 versus 17 percent) (exhibit 13).

The proportion of calls to the ADHL that originated in King County and concerned methamphetamine remained stable during the first half of 2003. Among the total number of calls, 15.6 percent concerned methamphetamine during the period, similar to the proportion in 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.

The percentage of male arrestees in the Seattle-King County ADAM program who tested positive for methamphetamine was 12 percent in 2003, statistically unchanged from prior years: 11 percent in 2002 and 2001 and 9 percent in 2000 (exhibit 9). Twenty percent and 14 percent reported use of methamphetamine in the prior 12 months and 30 days, respectively, during the second quarter of 2003. The 18 amphetamine-involved deaths in 2003 were the highest since at least 1987, when there were zero deaths (exhibit 5). From 1997 to 2003, there were 70 amphetamine-involved deaths (exhibit 6), of which 65 were determined to be methamphetamine. Almost one in three deaths in which amphetamines were identified was related to just the single drug, a relatively high proportion of deaths and second only to heroin/opiates (exhibit 7). Whites (89 percent) and males (79 percent) predominated methamphetamine-involved deaths from 1997 to 2003. Accidental/overdose deaths represented 94 percent of amphetamine deaths from 1997 to 2003 (exhibit 8).

Methamphetamine incidents peaked in 2001 statewide, in King County, and in Pierce County to the South (which has the largest number of labs in the State), but they continued to increase in Snohomish County (immediately to the north of King County) (exhibit 14). In King County, there were 202 incidents in 2003, down from 271 in 2001, but still up substantially from 1990, when there were 6 incidents (exhibit 14). Generally, methamphetamine incidents have increased in rural areas and declined in urban areas.

It is 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.

Tests on evidence submitted by law enforcement to the to the Seattle-area State Toxicology Laboratory indicate that 29 percent of all drugs tested were methamphetamine, substantially different than the findings for the rest of the State, in which 51 percent of tests were positive for methamphetamine (exhibit 10). In addition, for both regions a little less than 1 percent of tests were positive for pseudoephedrine, a precursor of methamphetamine.

Local street prices of methamphetamine in Seattle-King County were $30–$100 per gram, $500–$1,100 per ounce, and $5,000–$15,000 per pound.

A novel method of methamphetamine distribution resulted in an arrest in the Seattle area in December 2003. Methamphetamine-soaked paper was sent to an inmate, who then sold it to other inmates who apparently consumed the paper much like LSD on blotter paper.

The 2004 Threat Assessment compiled by NW HIDTA reports that analysis of samples collected by local DEA agents found purity of methamphetamine to average 45 percent, up from 30 percent in FY 2002 and FY 2001 throughout Washington.

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: 17 seizures (totaling 8 pounds) in 2002 and 18 seizures (totaling 3 pounds) in 2001. Other Federal agencies reported 46 kilograms seized in 2001, compared to a total of 127 kilograms in 2002, while local law enforcement agencies seized a total of 114 kilograms in 2001 and a total of 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), diphenhydramine (Benadryl) diazepam (Valium), hydroxyzine pamoate (Vistaril), lorazepam (Ativan), meprobamate (Equanil), oxazepam (Serax), phenobarbital, promethazine (Phenergan), secobarbital

(Seconal), temazepam (Restoril), triazolam (Halcion), and zolpidem (Ambien).

The rate of ED mentions per 100,000 population that involved depressants—anxiolytics, sedatives and hypnotics— declined to 67 per 100,000 in 2002 down from a peak of 86 per 100,000 in 2001 (exhibit 1b). Three-quarters of 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. Demographic data were unavailable.

Depressants were the primary drug for less than one percent of treatment clients in 2003 and in recent years. Treatment admission data for depressants are limited to where they are noted as the primary drug.

In the 71 depressant-involved deaths in 2003, 103 depressants were identified, an increase from 72 depressants identified in the 54 deaths in 2002 (exhibit 15). Single-drug deaths involving depressants were relatively infrequent from 1997 to 2003, constituting just 7 percent of depressant-involved deaths (exhibit 7). Suicide rates were much higher among those with depressants in their system: 24 percent, compared to 8 percent on average for all drugs (exhibit 8). Diazepam continued to be the most commonly detected depressant, although diphenhydramine equaled diazepam in 2003 with 26 identifications of each (exhibit 15). Promethazine was the third most common depressant identified, and it increased steadily from zero in 1997 to 9 in 2003. Of the 28 deaths in which promethazine was identified, 17 included methadone. Note that the DAWN/Multum lexicon identifies promethazine as an "other substance," "respiratory agent," while the King County medical examiner classifies it as a "tranquilizer/sleeping aid." It is often prescribed for its anti-nausea effects, although its sedative effects can be dangerous with other depressants. It was decided to include it in the depressant category for CEWG reporting purposes.

Key informants note that promethazine is often used by those on methadone to potentiate the high. Benzodiazepines, e.g., clonazepam and diazepam, are purchased on the street for three reasons: (1) to get high on, (2) to potentiate other drugs, and (3) for "home detoxes" whereby users, of heroin in particular, try to stop using on their own.

Law enforcement exhibits tested by the State toxicology laboratory showed that 1.2 percent (*n*=38) of exhibits from the Seattle-area lab were benzodiazepines (i.e., alprazolam, diazepam, and clonazepam) and that 0.9 percent (105) of exhibits from the rest of the State were benzodiazepines.

Hallucinogens, Club Drugs, and Dextromethorphan

Hallucinogens include lysergic acid diethylamide (LSD), mescaline, peyote, psilocybin (mushrooms), phencyclidine (PCP), and inhalants. "Club drugs" is a general term used for drugs that are popular at nightclubs and raves, including the hallucinogens, methylenedioxymethamphetamine (MDMA) (ecstasy), gamma hydroxybutyrate (GHB), gamma butyrolactone (GBL), ketamine, and nitrous oxide. Dextromethorphan, commonly found in over-the-counter cough medicines, can have dissociative effects at high dosages.

The rates of ED mentions for these classes of drugs (e.g., 4 per 100,000 population for MDMA) were low, compared to 65 per 100,000 for marijuana and 164 per 100,000 for cocaine in 2002. The rank order for the rates of ED mentions for these drugs from the most common to the least in 2002 was PCP, MDMA, GHB, miscellaneous hallucinogens (mushrooms), LSD, inhalants, ketamine and Rohypnol® (exhibit 1c).

PCP-involved mentions remained at a higher level of 6 per 100,000 from 2000 to 2002, up from 2 per 100,000 in 1995. In 2002, 83 percent of PCP mentions involved other drugs, a high proportion and similar to prior years. The proportion of females increased from 8 to 30 percent from 1995 to 2002. One-half of PCP-involved mentions were African-American in 2002; extensive missing data in the 1990s precludes race trend comparisons. Those aged 18–25 consistently constituted the largest group of PCP users.

ED mentions of MDMA continued to decline steadily. The peak of mentions was in 2000; the rate was 6 per 100,000 a fourfold increase from the prior year. In 2002, the rate was 4 per 100,000. The majority of users in recent years appear to be White males age 18–25. In the mid-and late 1990s, those age 18–25 represented the only group using with any frequency. In 2000, use increased among all groups, most notably 6–17-year-olds and 26–34-year-olds.
With regards to other drugs identified in the ED, LSD-involved visits continued to decline in 2002, while mentions of GHB and mushrooms remained relatively steady. Dextromethorphan is considered a respiratory agent in the lexicon that DAWN uses, DAWN lists 31 drugs that include dextromethorphan in combination, with one additional listing for dextromethorphan alone. The number of mentions totaled 39 in 2002, a very small number of people.

The total number of deaths involving these drugs increased steadily to 12 in 2003, up from 2 in 1997 (exhibit 6). Over the course of this timeframe, there were 29 deaths, 5 related to a single drug (exhibit 7). Of these five single-drug deaths, four involved MDMA, and one included GHB. The average age of dextromethorphan-involved deaths was 44; it was 24 for MDMA, and 28 for GHB. Of the 18 deaths involving DXM, an average of 4.7 drugs were identified; 14 involved some combination of heroin/opiate (identified 4 times), prescription opiate (identified 8 times) or cocaine (identified 7 times). The number of deaths involving DXM increased from 2 in 1997 to 11 in 2003. Of the seven MDMA-involved deaths, four involved MDMA alone, with the three other deaths involving either methamphetamine or cocaine.

Treatment admissions for hallucinogens, inhalants, and PCP were all well under 1 percent of total admissions in 2003.

ADAM data for drugs in this category are limited to PCP. In 2003, 5 percent of arrestees tested positive for PCP, the highest level since 2000 and the fifth highest level among all cities in which the ADAM program was present in 2003 (exhibit 9). Two percent of those interviewed in 2003 said they had used PCP in the prior 3 days. PCP generally remains detectable in urine for about 8 days and for up to 30 days in chronic users.

State toxicology testing of law enforcement evidence shows that MDMA is the fifth most common drug detected at the Seattle lab (*n*=44, 1.4 percent) and the ninth most common for the rest of the State (*n*=67, 0.5 percent) (exhibit 10). The related compound MDA was detected less often in Seattle (10, 0.3 percent) and the rest of the State (15, 0.1 percent). PCP was found in 29 samples (0.9 percent) in Seattle, but it was not among the top 25 drugs for the rest of the State.

Calls to the ADHL regarding MDMA continued 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, these drugs represented just 2 percent of all calls, compared with 6 percent in 2001.

Doses of ecstasy average $20 in King County and throughout much of the State.

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, four seizures totaled 32 pounds, the largest of which was 28 pounds.

Other Drugs of Note—Muscle Relaxants and Tri-Cyclic Antidepressants

Muscle Relaxants

Muscle relaxants are a category of drug that is often overlooked in the investigation of drug abuse trends. In past reports these medications were categorized as "other drugs" and not discussed. These drugs can have potent sedating effects in addition to their impact on muscle tissue. Use of muscle relaxants in combination with other depressants such as alcohol or benzodiazepines is contraindicated.

Key informants note that cyclobenzaprine (e.g., Flexeril) and carisoprodol (e.g., Soma) are purchased on the street with the intent of using them to get high.

Mortality data show a small but increasing presence of such substances in drug-involved deaths (exhibit 16). From 1997 to 2003, there were 30 deaths in which a muscle relaxant was identified, increasing from 2 to 11 deaths per year during this timeframe. Cyclobenzaprine (16 mentions) and carisoprodol (13 mentions) were most commonly identified in deaths during this timeframe. In all such deaths, other drugs were also identified. The race of all decedents was Caucasian, the only drug type for which a single race was represented. DAWN ED data show a fairly steady level of muscle relaxant mentions, with a rate of 7 per 100,000 in 2002 (exhibit 1b).

Carisoprodol was the only muscle relaxant identified in toxicology analysis of law enforcement evidence, with 10 items (0.3 percent) in the Seattle lab and 21 items (0.2 percent) for the rest of the State. NW HIDTA reports that carisoprodol is the sixth most common substance identified in impaired drivers, according to the State Toxicology Lab in 2003.

Antidepressants

The term "antidepressant" indicates the original indication for prescribing the medication when it was introduced on the market, but current indications for use often are very different. Antidepressants are very diverse drugs in terms of their effects, ranging from heavily sedating to mildly stimulating. Tricyclic antidepressants (e.g., amitriptyline, doxepin, nortrityline, imipramine) are an older class of medications that are now most commonly used for treating insomnia or pain. Tricyclics identified in polydrug deaths peaked

in 2003 at 32 mentions, with an average of 18 per year in the preceding 6 years (exhibit 17). The number of antidepressants of all types identified in deaths during this timeframe increased from 23 to 78. A large proportion of these deaths involved SSRI anti-depressants (e.g., sertraline, fluoxetine, citalopram) which, because of their physical effects, are unlikely to contribute to deaths in which they are identified.

All analyses for this report exclude deaths due only to antidepressants, the majority of which involve tricyclics, because the local work group determined these medications are rarely used as drugs of abuse.

Summary

These additional categories of drugs were investigated in order to apply the scrutiny given to prescription opiates in past reports to additional categories of prescription drugs. In the course of these analyses, the complexities associated with the categorization and the effects of these drugs became evident. That is, medications such as muscle relaxants were not tracked in the past when they were "lumped" with a broad range of other drugs, such as nonprescription analgesics and anticonvulsants. In the case of drugs categorized as "antidepressants," it became clear that many of these medications in fact were very strong sedatives (i.e., tricyclic antidepressants), and that old categorization schemes obscured actual effects and current uses of these medicines. At this point, it does not appear these classes of drugs are of great significance in the overall morbidity and mortality associated with drug abuse. However, the local work group will continue to monitor these drugs as it is only possible to detect emerging trends if the elements necessary for detection are in place.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Excepting male drug injectors who also have sex with men, 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 serosurveys conducted in methadone treatment centers and correctional facilities and through street and community-targeted sampling strategies over this period indicate that 4 percent or fewer of injecting drug users (IDUs) who are not men who have sex with men (MSM) 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 as IDUs who are enrolled in treatment. Data from a CDC-funded HIV Incidence Study (HIVIS 1996-2001), suggest that the rate of new infections among non-MSM/non-IDUs 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 MSM in general in King County. HIVIS data indicate that 2.5 percent (95 percent CI: 1.1-4.5) of non-infected 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 and C are endemic among Seattle-area injectors. Epidemiologic studies conducted among more than 4,000 IDUs by Public Health's HIV-AIDS Epidemiology Program since 1994 reveal that 85 percent of King County IDUs may be infected with hepatitis C (HCV), and 70 percent show markers of prior infection with hepatitis B (HBV). Local incidence studies indicate that 21 percent of non-infected IDUs acquire HCV each year and 10 percent of IDUs who have not had hepatitis B acquire HBV.

In addition to injection drug use, studies conducted by Public Health–Seattle & King County's STD Clinic indicate use of methamphetamine by means other than injection, as well as inhalation of poppers (amyl nitrite), 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 nitrite use were nearly twice as likely to be HIV infected compared to non-infected MSM, while MSM who reported non-injection 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 the need 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 18.

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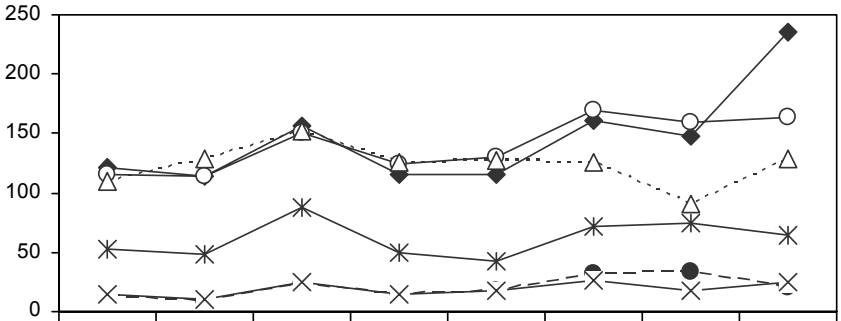
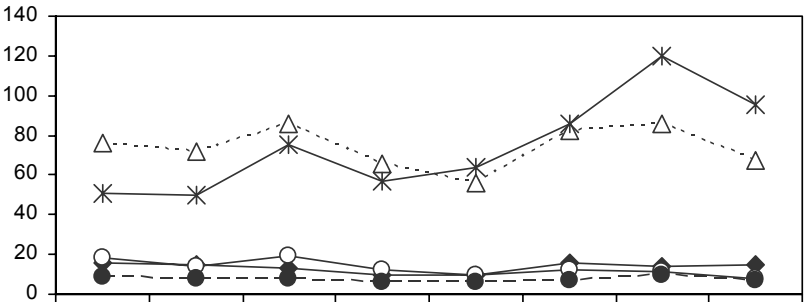
Exhibit 1a. Rates of ED Mentions in King and Snohomish Counties for Major Drugs: 1995–2002



	1995	1996	1997	1998	1999	2000	2001	2002
Alcohol-in-Combination	122	114	157	115	115	161	147	235
Cocaine	116	114	150	125	130	169	160	164
Heroin	109	128	152	126	127	126	90	128
Marijuana	53	48	87	49	42	72	75	65
Amphetamines	13	9	24	15	18	32	33	21
Methamphetamine	14	10	25	14	18	27	18	25

SOURCE: DAWN, OAS, SAMHSA

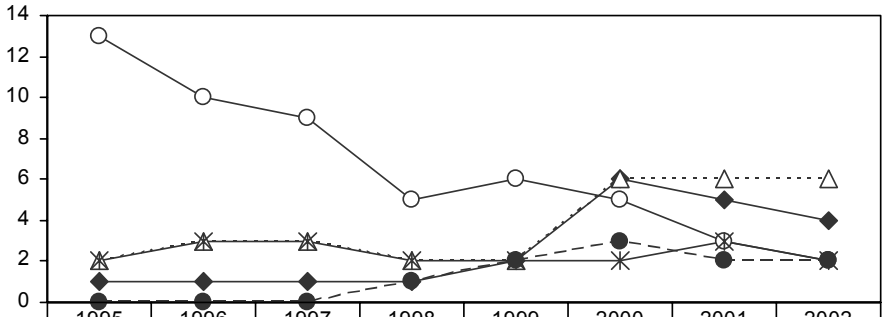
Exhibit 1b. Rates of ED Mentions in King and Snohomish Counties for Prescription Drugs: 1995–2002



	1995	1996	1997	1998	1999	2000	2001	2002
SSRI antidepressants	16	15	13	10	10	16	14	15
Tricyclic antidepressants	18	14	19	12	10	12	11	8
Anx./Seds./Hyp.	76	72	86	66	56	82	86	67
Narcotic Analgesics/Comb.	51	50	75	57	64	86	120	95
Muscle relaxants	9	8	8	6	6	7	10	7

SOURCE: DAWN, OAS, SAMHSA

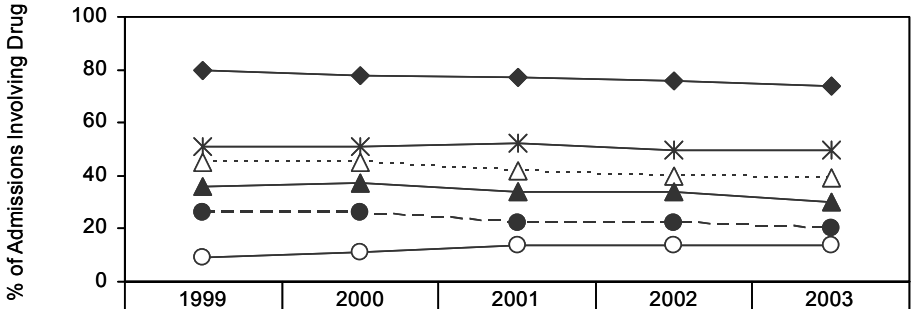
Exhibit 1c. Rates of ED Mentions in King and Snohomish Counties for Club Drugs/Hallucinogens: 1995–2002



	1995	1996	1997	1998	1999	2000	2001	2002
MDMA	1	1	1	1	2	6	5	4
LSD	13	10	9	5	6	5	3	2
PCP	2	3	3	2	2	6	6	6
Misc. halluc. (e.g., mushrooms)	2	3	3	2	2	2	3	2
GHB	0	0	0	1	2	3	2	2

SOURCE: DAWN, OAS, SAMHSA

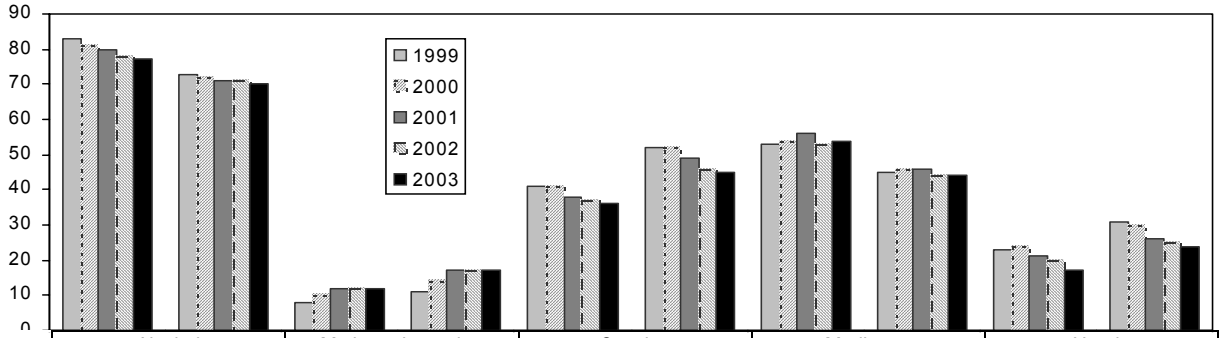
Exhibit 2. Drug Treatment Admissions for Primary, Secondary, or Tertiary Use of Selected Drugs by Youth and Adults Combined in King County, Washington: 1999–2003



	1999	2000	2001	2002	2003
Alcohol	80	78	77	76	74
Methamphetamine	9	11	14	14	14
Cocaine	45	45	42	40	39
Marijuana	51	51	52	50	50
Heroin	26	26	22	22	20
IDU[1]	36	37	34	34	30

[1]Injection drug use (ever).
SOURCE: Washington State TARGET data system—Structured Ad Hoc Reporting System

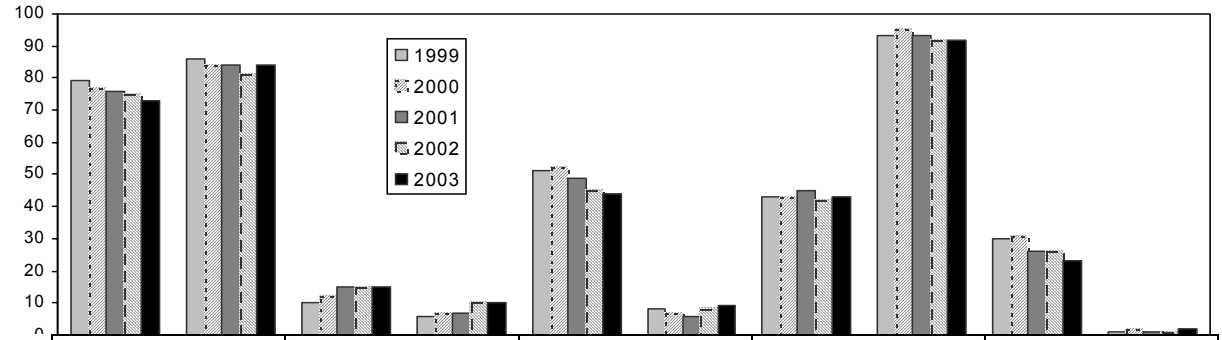
Exhibit 3. Drug Treatment Admissions for "Any Use of Drug" by Gender and Percent in King County, Washington: 1999–2003[1]



	Alcohol		Methamphetamine		Cocaine		Marijuana		Heroin	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1999	83	73	8	11	41	52	53	45	23	31
2000	81	72	10	14	41	52	54	46	24	30
2001	80	71	12	17	38	49	56	46	21	26
2002	78	71	12	17	37	46	53	44	20	25
2003	77	70	12	17	36	45	54	44	17	24

[1]In 2003, there were 1,393 youth treatment admissions and 7,397 adult treatment admissions.
SOURCE: WA State Division of Alcohol and Substance Abuse, DSHS, Treatment Analyzer data analysis tool

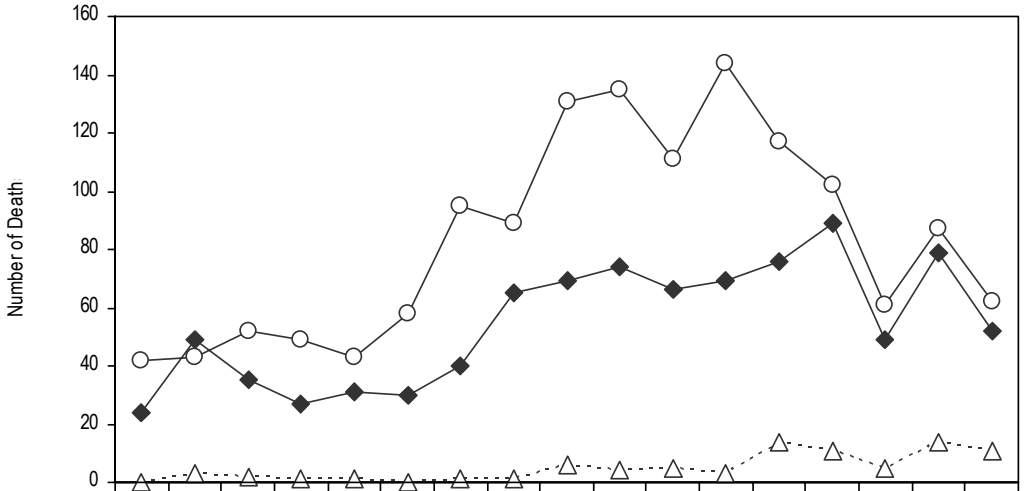
Exhibit 4. Drug Treatment Admissions for "Any Use of Drug" Among Youth and Adults in King County, Washington, by Percent: 1999–2003[1]



	Alcohol		Methamphetamine		Cocaine		Marijuana		Heroin	
	Adult	Youth	Adult	Youth	Adult	Youth	Adult	Youth	Adult	Youth
1999	79	86	10	6	51	8	43	93	30	1
2000	77	84	12	7	52	7	43	95	31	2
2001	76	84	15	7	49	6	45	93	26	1
2002	75	81	15	10	45	8	42	92	26	1
2003	73	84	15	10	44	9	43	92	23	2

[1]In 2003, there were 1,393 youth treatment admissions and 7,397 adult treatment admissions.
SOURCE: WA State Division of Alcohol and Substance Abuse, DSHS, Treatment Analyzer data analysis tool

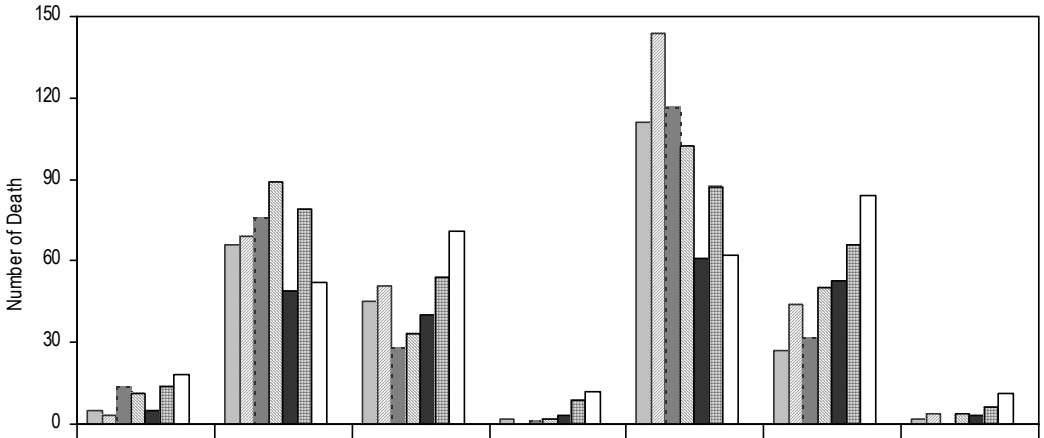
Exhibit 5. Drug-Involved Deaths in King County, Washington, Related to Illicit Drugs: 1987–2003



	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Cocaine	24	49	35	27	31	30	40	65	69	74	66	69	76	89	49	79	52
Heroin/Morphine	42	43	52	49	43	58	95	89	131	135	111	144	117	102	61	87	62
Amphetamines	0	3	2	1	1	0	1	1	6	4	5	3	14	11	5	14	11

SOURCE: Medical Examiners Office, Public Health – Seattle & King County

Exhibit 6. Drug-Involved Deaths in King County, Washington, Related to Illicit and Prescription Drugs: 1997–2003



	Amphetamine	Cocaine	Depressant	Club Drug/Halluc.	Heroin/Opiate	Other Opiate	Muscle Relaxant
1997	5	66	45	2	111	27	2
1998	3	69	51	0	144	44	4
1999	14	76	28	1	117	32	0
2000	11	89	33	2	102	50	4
2001	5	49	40	3	61	53	3
2002	14	79	54	9	87	66	6
2003	18	52	71	12	62	84	11
Total	17	480	322	29	684	356	30

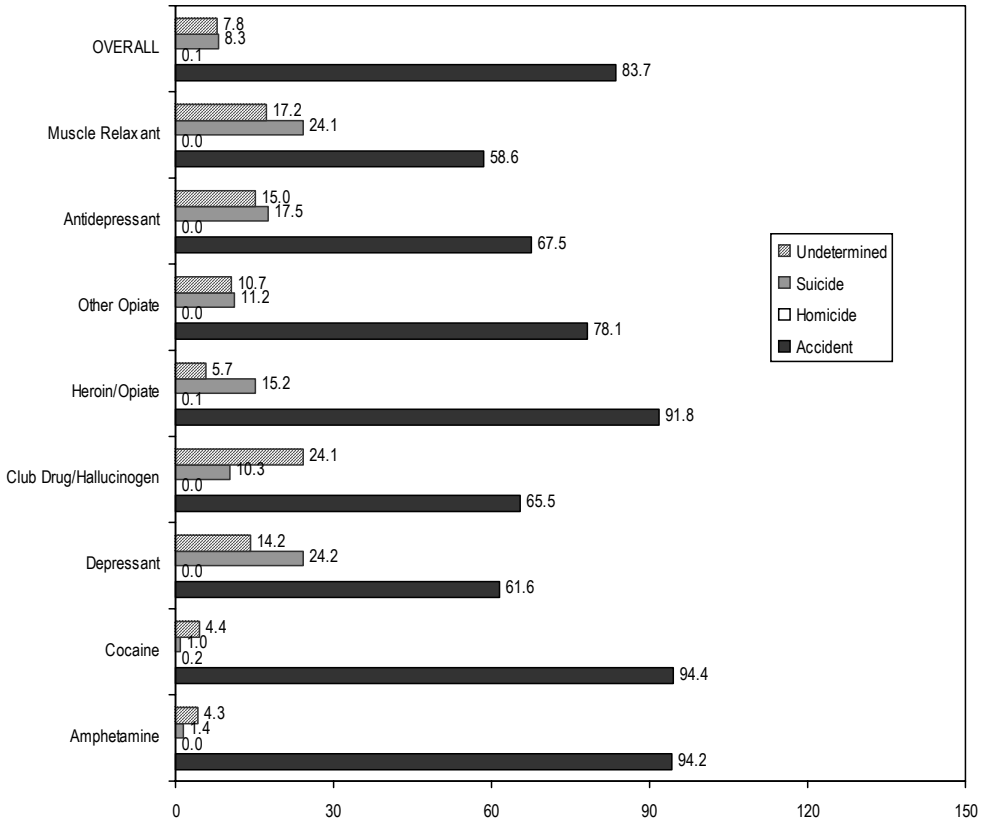
SOURCE: Medical Examiners Office, Public Health Seattle – King County

Exhibit 7. Single and Multidrug-Involved Deaths[1] in King County, Washington: 1997–2003

Drug Involved	1997	1998	1999	2000	2001	2002	2003	Total	% Single Drug
Alcohol									
Single drug	7	8	5	5	4	2	8	39	
Multidrug[2]	NA	NA	NA	NA	NA	NA	NA	NA	
Amphetamine									
Single drug	2	1	6	2	1	3	7	22	31%
Multidrug	3	2	8	9	4	11	11	48	
Cocaine									
Single drug	12	8	13	31	8	16	9	97	20%
Multidrug	54	61	63	58	41	63	43	383	
Heroin/Opiate									
Single drug	53	65	50	41	16	19	7	251	37%
Multidrug	58	79	67	61	45	68	55	433	
Club Drug/ Hallucinogen[3]									
Single drug	0	0	1	0	2	1	1	5	17%
Multidrug	2	0	0	2	1	8	11	24	
Depressant/Sedative/ Anxiolytic									
Single drug	6	5	5	4	1	0	3	24	7%
Multidrug	39	46	23	29	39	54	68	298	
Other Opiate									
Single drug	1	12	7	10	8	5	5	48	13%
Multidrug	26	32	25	40	45	61	79	308	
Muscle Relaxant									
Single drug	0	0	0	0	0	0	0	0	0%
Multidrug	2	5	1	4	3	6	10	31	

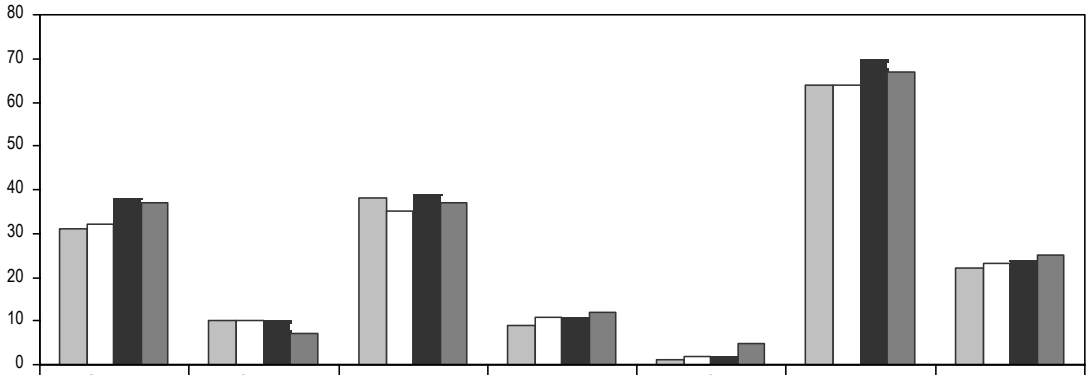
[1]Antidepressant single-drug deaths are excluded from analyses.
[2]Alcohol-in-combination deaths inconsistently recorded across time.
[3]Club Drug/Hallucinogen: PCP, MDMA, GHB/GBL, mescaline, peyote, dextromethorphan.
SOURCE: Medical Examiners Office, Public Health – Seattle & King County

Exhibit 8. Manner of Death for Drug-Involved Deaths in King County, Washington, by Percent: 1997–2003



SOURCE: Medical Examiners Office, Public Health – Seattle & King County

Exhibit 9. Urine Drug Screen Results Among New Arrestees in King County Jails: 2000–2003



	Cocaine	Opiates	Marijuana	Methamphetamine	PCP	Any NIDA 5 Drug	Multiple Drugs
2000	31	10	38	9	1	64	22
2001	32	10	35	11	2	64	23
2002	38	10	39	11	2	70	24
2003	37	7	37	12	5	67	25

SOURCE: ADAM, NIJ

Exhibit 10. National Forensic Lab Information System, Drug Test Results for Law Enforcement Seizures in Seattle and the State of Washington: 2003

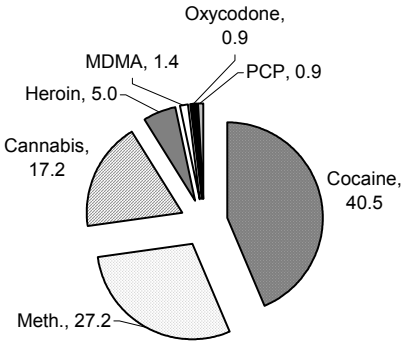
Drug Test Results on Law Enforcement Submissions to Seattle Area Lab (Top 25 Substances)

Substance	Count	Percent
Cocaine	1300	40.5
Meth.	872	27.2
Cannabis	551	17.2
Heroin	161	5.0
MDMA	44	1.4
Oxy-codone	29	0.9
PCP	29	0.9
Hydrocodone	23	0.7
Pseudoephedrine	22	0.7
Psilocin	21	0.7
Clonazepam	17	0.5
Methadone	13	0.4
Diazepam	13	0.4
Cathinone	11	0.3
Carisoprodol	10	0.3
3,4-Methylenedioxyamphetamine	10	0.3
Non-Controlled Non-Narcotic Drug	10	0.3
Acetaminophen	9	0.3
Alprazolam	8	0.3
Amphetamine	8	0.3
Caffeine	8	0.3
Morphine	7	0.2
Codeine	6	0.2
Methandrostenolone (Methandienone)	4	0.1
Ketamine	2	0.1
Total	3188	99.3
Total Items Reported	3212	

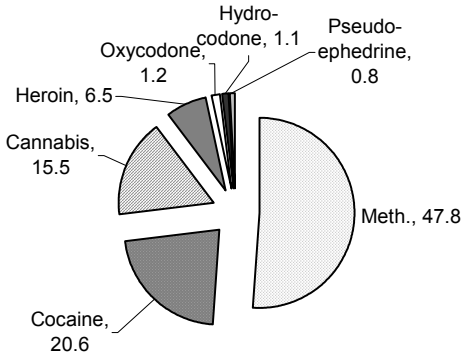
Drug Test Results on Law Enforcement Submissions to WA State Labs Excluding Seattle Area Lab (Top 25 Substances)

Substance	Count	Percent
Meth.	5892	47.8
Cocaine	2540	20.6
Cannabis	1913	15.5
Heroin	800	6.5
Oxy-codone	150	1.2
Hydro-codone	136	1.1
Pseudo-ephedrine	96	0.8
Psilocin	67	0.5
MDMA	67	0.5
Non-Controlled Non-Narcotic Drug	63	0.5
Methadone	51	0.4
Diazepam	46	0.4
Amphetamine	41	0.3
Clonazepam	36	0.3
Psilocybin	36	0.3
Morphine	34	0.3
Codeine	29	0.2
Acetaminophen	23	0.2
Alprazolam	23	0.2
Sodium Bicarbonate	23	0.2
Cannabinol	22	0.2
Caffeine	22	0.2
Carisoprodol	21	0.2
Methylphenidate	16	0.1
MDA	15	0.1
Top 25	12162	98.6
Total Items Reported	12332	

State Patrol Drug Seizure Tests Seattle Lab 2003

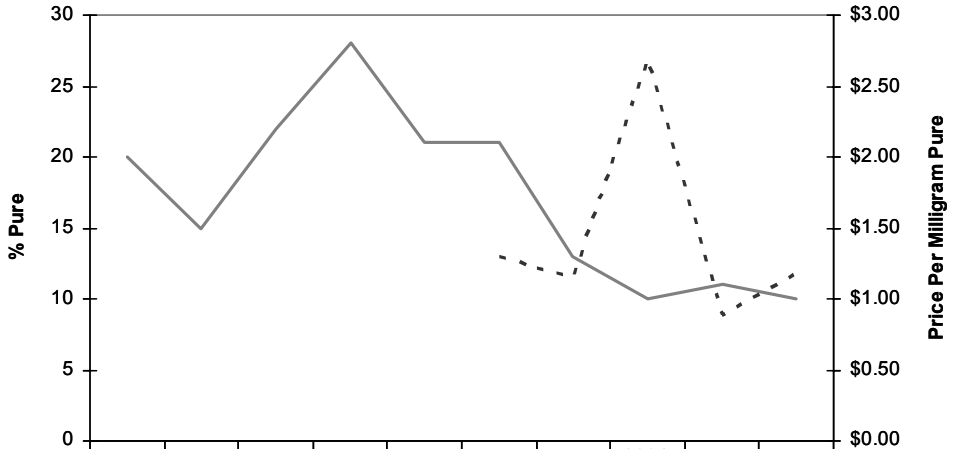


State Patrol Drug Seizure Tests WA State, Excluding Seattle, 2003



SOURCE: National Forensic Laboratory Information System. Data obtained from the Washington State Patrols, Forensic Toxicology Laboratory

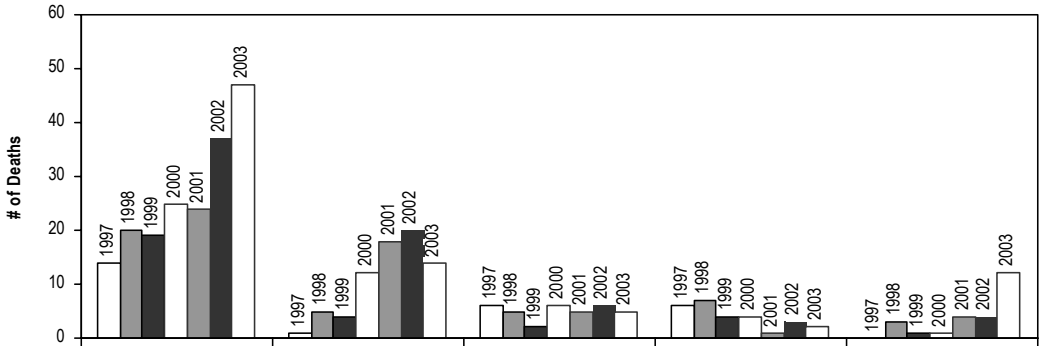
Exhibit 11. Heroin Prices and Purity in Seattle: 1992–2003



	1992	1993	1994	1995	1996	1998	2000	2001 1H[1]	2002	2003[1]
Purity	20	15	22	28	21	21	13	10	11	10
Price/mg pure						$1.30	$1.15	$2.69	$0.89	$1.18

[1]Note: 2001 and 2003 data are based on preliminary findings.
SOURCE: Drug Enforcement Administration, Domestic Monitor Program, used with permission.

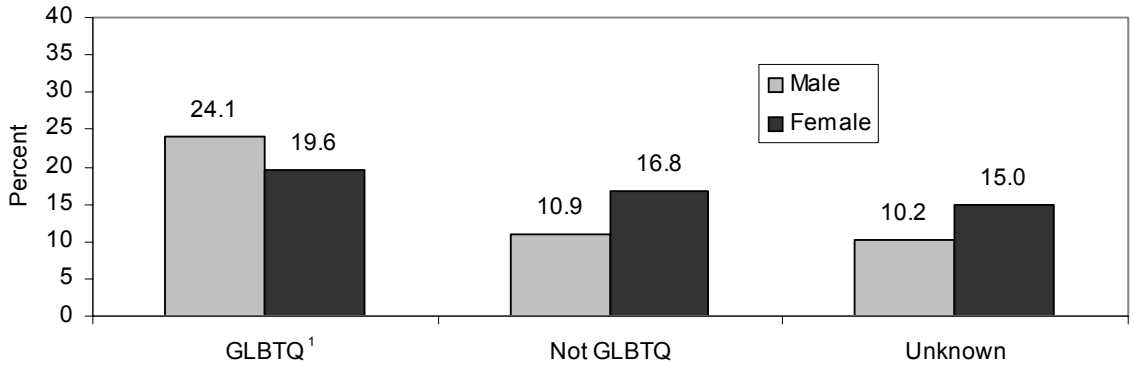
Exhibit 12. Prescription Opiate[1]-Involved Deaths in King County, Washington: 1997–2003



	Methadone	Oxycodone	Codeine	Propoxyphene	Hydrocodone
1997	14	1	6	6	0
1998	20	5	5	7	3
1999	19	4	2	4	1
2000	25	12	6	4	1
2001	24	18	5	1	4
2002	37	20	6	3	4
2003	47	14	5	2	12

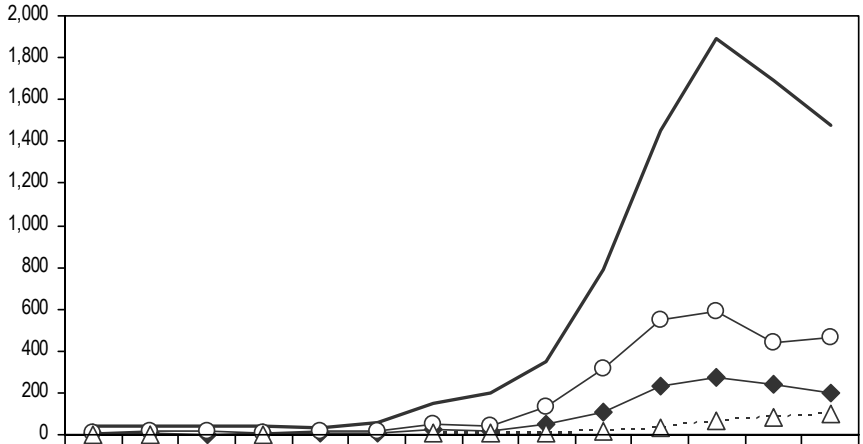
[1]Note: These five drugs represent 86 percent of prescription opiate-involved deaths.
SOURCE: Medical Examiners Office, Public Health – Seattle & King County

Exhibit 13. Drug Treatment Admissions by Sexual Orientation and Methamphetamine Use in King County, Washington: 2003



[1]GLBTQ=Gay, lesbian, bisexual, transsexual, and questioning of sexual identity.
SOURCE: Washington State TARGET data system—Structured Ad Hoc Reporting System.

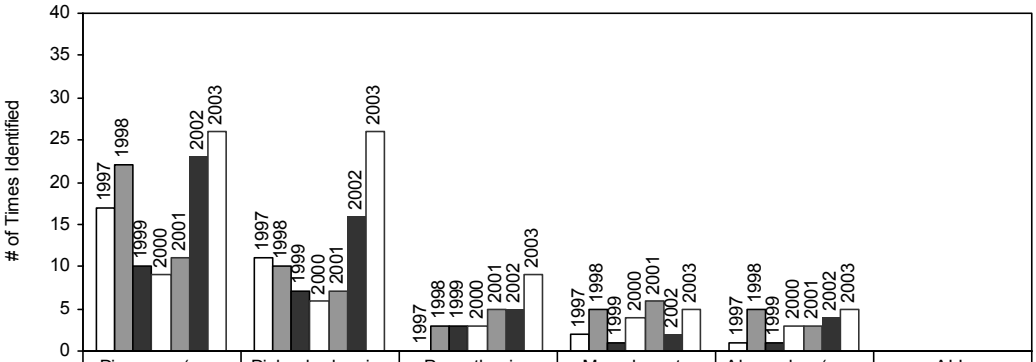
Exhibit 14. Methamphetamine Incidents Reported by the Washington State Department of Ecology: 1990–2003



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
King Co.	6	10	2	7	7	10	23	17	48	107	231	271	241	202
Pierce Co.	10	18	18	12	17	17	53	42	129	318	545	589	438	466
Snohomish Co.	2	2		2			7	6	5	13	37	69	83	98
Washington State Total	38	43	40	42	36	54	153	203	349	789	1,454	1,890	1,693	1,480

SOURCE: Washington State Department of Ecology

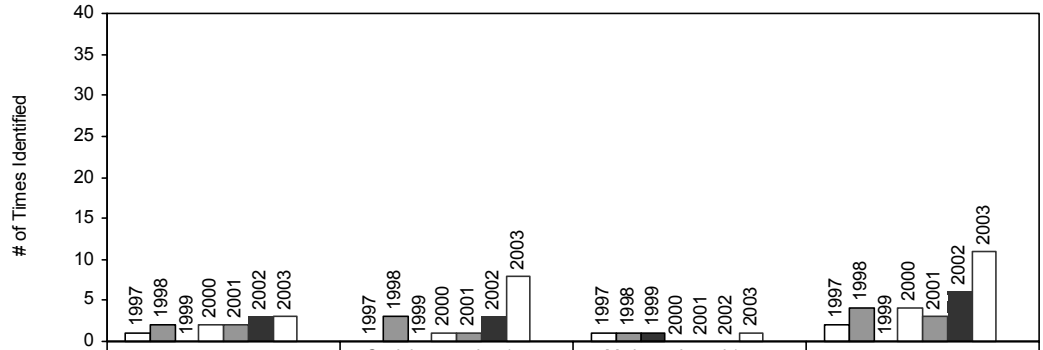
Exhibit 15. Depressant/Sedative/Anxiolytic-Involved Deaths in King County, Washington: 1997–2003



	Diazepam (e.g., Valium)	Diphenhydramine (e.g., Benedryl)	Promethazine (e.g., Phenergan)	Meprobamate (e.g., Miltown)	Alprazolam (e.g., Xanax)	ALL DEPRESSANTS
1997	17	11	0	2	1	55
1998	22	10	3	5	5	67
1999	10	7	3	1	1	36
2000	9	6	3	4	3	39
2001	11	7	5	6	3	49
2002	23	16	5	2	4	72
2003	26	26	9	5	5	103

SOURCE: Medical Examiners Office, Public Health – Seattle & King County

Exhibit 16. Muscle Relaxant-Involved Deaths in King County, Washington: 1997–2003



	Carisoprodol (e.g., Soma)	Cyclobenzaprine (e.g., Flexeril)	Methocarbamol (e.g., Robaxin)	TOTAL MUSCLE RELAXANT
1997	1	0	1	2
1998	2	3	1	4
1999	0	0	1	0
2000	2	1	0	4
2001	2	1	0	3
2002	3	3	0	6
2003	3	8	1	11
TOTAL	13	16	4	30

SOURCE: Medical Examiners Office, Public Health – Seattle & King County

Exhibit 17. Antidepressant-Involved Deaths in King County, Washington: 1997–2003

Antidepressant	Type	Effect	Current Indications for Prescribing	'97	'98	'99	'00	'01	'02	'03	Total
Amitriptyline	Tri-cyclic	Sedating	Insomnia/Pain	5	14	4	5	3	7	7	45
Doxepin	Tri-cyclic	Sedating	Insomnia	2	2	4	1	4	5	4	22
Trazodone	Mixed	Sedating	Insomnia	2	3	1	3	5	4	2	20
Sertraline	SSRI	Mild Stimulant	Depression	2	4	2	2	2	0	3	15
Fluoxetine	SSRI	Mild Stimulant	Depression	2	2	3	2	1	3	5	18
Citalopram	SSRI	Neutral	Depression	0	0	2	0	4	3	9	18
Tri-cyclic Antidepressant	Tri-cyclic	Sedating	Insomnia/Pain	14	26	15	19	15	21	32	142
All Antidepressants	Mixed	Mixed	Mixed	23	40	29	32	40	47	78	289

SOURCE: Medical Examiners Office, Public Health – Seattle & King County

Exhibit 18. Persons Diagnosed with HIV Infection, Including Those With AIDS: 2001–2003

	King County[1] HIV including AIDS		Other WA Counties[2] HIV including AIDS		Washington State[1] HIV including AIDS		United States[2] AIDS only	
Cumulative Diagnoses of HIV, including AIDS	9,022		4,839		13,861		886,575	
Cumulative HIV or AIDS Deaths	3,943		2,050		5,993		501,669	
Number currently living with HIV, including AIDS	5,079		2,789		7,868		384,906	
Case Demographics	**King County[1] HIV including AIDS 01/2001–12/2003**		**Other WA Counties[1] HIV including AIDS 01/2001–12/2003**		**Washington State[1] HIV including AIDS 01/2000–12/2003**		**United States[2] AIDS only 01/2000–12/2002**	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**		
Gender:								
Male	847	89%	425	80%	1,272	86%	92,057	73.88%
Female	100	11%	109	20%	209	14%	32,546	26.12%
Age:								
12 and younger	0	0%	1	< 1%	1	< 1%	---	
13–19	9	1%	9	2%	18	1%	---	
20–29	205	22%	110	21%	315	21%	---	
30–39	446	47%	205	38%	651	44%	---	
40–49	214	23%	141	26%	355	24%	---	
50–59	58	6%	42	8%	100	7%	---	
60 and older	15	2%	26	5%	41	3%	---	
Race/Ethnicity:								
White	594	63%	345	65%	939	63%	35688	28.64%
Black	188	20%	83	16%	271	18%	62116	49.85%
Hispanic	104	11%	62	12%	166	11%	24694	19.82%
Asian/Pacific Islander	31	3%	22	4%	53	4%	1307	1.05%
Native American	20	2%	16	3%	36	2%	579	0.46%
Multi-Race	6	1%	0	0%	6	< 1%	N/A	
Unknown	4	< 1%	6	1%	10	1%	219	0.18%
Exposure Category:								
Male-male sex	625	66%	246	46%	871	59%	49316	39.58%
Injecting drug user	59	6%	74	14%	133	9%	31849	25.56%
IDU & male-male sex	63	7%	35	7%	98	7%	5914	4.75%
Heterosexual contact	104	11%	100	19%	204	14%	35239	28.28%
Blood product exposure	4	< 1%	0	0%	4	< 1%	877	0.70%
Mother at risk/has AIDS	0	0%	1	< 1%	1	< 1%	311	0.25%
Undetermined/other	92	10%	78	15%	170	11%	1097	0.88%
Total HIV Cases diagnosed in last 3 years	**947**	**100%**	**534**	**100%**	**1,481**	**100%**	**124,603**	**100.00%**

[1]These cases were diagnosed with HIV infection between January 2001 and December 2003, and reported to Public Health – Seattle & King County or the Washington Department of Health as of 03/31/2004.
[2]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.
Technical note: 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.
SOURCE: Public Health – Seattle & King County, the Washington State Department of Health, and the Federal Centers for Disease Control and Prevention

Substance Abuse Trends in Texas, June 2004

Jane Carlisle Maxwell, Ph.D.[1]

ABSTRACT

Cocaine is the primary illicit drug for which Texans enter treatment. It remains a problem on the border with Mexico, as documented in the school surveys, arrestee data, and forensic data. Use of crack cocaine, which is at an endemic level, continues to move beyond Black users to White and Hispanic users. Alcohol is the primary drug of abuse in Texas in terms of dependence, deaths, treatment admissions, and arrests. Heroin addicts entering treatment are primarily injectors. In Texas, hydrocodone is a much larger problem than oxycodone or methadone. Codeine cough syrup, "Lean," continues to be abused. Treatment data show that marijuana clients admitted with criminal justice problems are less impaired than those who are not referred from the criminal justice system. "Ice," which is smoked methamphetamine, is a growing problem. Xanax and Soma continue as widely-abused pharmaceutical drugs. Club drug users differ in their socio-demographic characteristics just as the properties of these drugs differ. Ecstasy use is moving out of the White club scene. Ketamine continues as a problem. GHB, GBL, and similar precursor drugs remain a problem, particularly in the Dallas/Fort Worth (DFW) Metroplex area. Although indicators are down, Rohypnol remains a problem along the Texas-Mexico border. All PCP indicators are continuing to rise, and dextromethorphan (DXM) is a problem with adolescents. Inhalants remain a problem, with different types of users. The numbers of AIDS cases of females and persons of color are growing. The proportion of cases due to the heterosexual mode of transmission now exceeds the proportion of cases due to injecting drug use. Forty-one percent of persons testing positive for hepatitis C (HCV) were exposed through injecting drug use.

INTRODUCTION

Area Description

The population of Texas in 2003 is 21,828,569, with 51 percent White, 12 percent Black, 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 bring them into the U.S. 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 on-going series, which is published every 6 months as a report for the Community Epidemiology Work Group meetings sponsored by the National Institute on Drug Abuse (NIDA). To compare the June 2004 report with earlier periods, please refer to previous editions that are available in hard copy from the Texas Commission on Alcohol and Drug Abuse (TCADA). These reports are also available online on TCADA's web page at www.tcada.state.tx.us and on the Gulf Coast Addiction Technology Transfer Center's web page at 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*.
- **Adult substance use—**Data came from TCADA's *2000 Texas Survey of Substance Use Among Adults*.
- **Use by Texans ages 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.*

[1]The author is affiliated with the Center for Social Work Research, The University of Texas at Austin.

- **Poison Control Center data**—Data came from the Texas Poison Center Network (TPCN), Texas Department of Health (TDH), for 1998 through 2003. Analysis was provided by Mathias Forrester, epidemiologist with the Texas Poison Center Network, TDH, and by the author.

- **Treatment data**—TCADA's client data system provided information on clients at admission to treatment in TCADA-funded facilities from the first quarter of 1983 through December 31, 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. Analysis was by the author.

- **Overdose death data**—Statewide data on drug overdose deaths through 2002 came from death certificates from the Bureau of Vital Statistics of TDH. Analysis was by the author. Data on the deaths in the Dallas metropolitan areas came from 2002 medical examiner (ME) data collected by the Drug Abuse Warning Network (DAWN). DAWN is conducted by the Office of Applied Studies of the SAMHSA.

- **Drug use by arrestees**—The Arrestee Drug Abuse Monitoring Program (ADAM) of the National Institute of Justice provided data through 2003 for Dallas, Houston, Laredo, and San Antonio.

- **Drug and Alcohol Arrests**—Arrest data come from the Uniform Crime Reports of the Texas Department of Public Safety (DPS).

- **Drugs identified by laboratory tests**—The Texas Department of Public Safety submitted results from toxicological analyses of substances seized in law enforcement operations for 1998 through 2003 to the National Forensic Laboratory Information System (NFLIS) of the Drug Enforcement Administration (DEA). Analysis was by the author.

- **Price, purity, trafficking, distribution, and supply**—This information was provided by second quarter 2004 reports on trends in trafficking from the Dallas, El Paso, and Houston Field Divisions of the DEA. The DEA's Domestic Monitor Program (DMP) reported the price and purity of heroin.

- **Reports by users and street outreach workers**—Drug trends for January through March 2004 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 March 2004.

- **Hepatitis C (HCV) data**—TDH provided data on HCV counseling and testing for the period January 2003 to December 31, 2003.

DRUG ABUSE TRENDS

Cocaine and Crack

The *Texas School Survey of Substance Abuse: Grades 7-12, 2002* found that 7.2 percent of students in non-border 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 2.7 percent of non-border students reporting 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 1.9 percent of Texans ages 12 and above had used cocaine in the past year.

Texas Poison Control Center calls involving use of cocaine increased from 503 in 1998 to a high of 1,194 in 2002 before dropping to 979 in 2003. In 2003, average age was 30.6 and 65 percent were male.

Cocaine (crack and powder) comprised 27 percent of all adult admissions to TCADA-funded treatment programs in 2003. Crack cocaine is the primary illicit drug abused by clients admitted to publicly-funded treatment programs in Texas with 19 percent of all admissions.

Abusers of powder cocaine were 8 percent of all admissions to treatment. Cocaine inhalers were the youngest and most likely to be Hispanic and involved in the criminal justice or legal systems. Cocaine injectors were older than inhalers but younger than crack smokers and were most likely to be White (exhibit 2).

The term "lag" refers to the period from first consistent or regular use of a drug to the date of admission to treatment. Powder cocaine inhalers average 9 years between first regular use and entrance to treatment, while injectors average 14 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 46 percent, while for Whites and Blacks, the percent has dropped (from 48 percent to 42 percent and from 28 percent to 10 percent, respectively). Exhibit 3 shows these changes by route of administration. It also shows the proportion of Black crack cocaine admissions fell from 75 percent in 1993 to 49 percent in 2003, while the proportion of Whites increased from 20 percent in 1993 to 34 percent in 2003. Hispanic admissions rose from 5 percent to 15 percent in the same time period.

The number of deaths statewide in which cocaine was mentioned has increased over the years, from 223 in 1992 to 538 in 2002 (exhibit 4), and the rate per 100,000 population has more than doubled from 1.1 deaths per 100,000 in 1992 to 2.5 deaths per 100,000 in 2002. The average age of the decedents is continuing to increase to 39.4 years in 2002. Of these, 47 percent were White, 24 percent were Hispanic, and 28 percent were Black. Seventy-six percent were male.

The DAWN medical examiner system reported that the number of deaths in the Dallas metropolitan area involving a mention of cocaine increased from 134 in 1996 to 177 in 2002. Twenty-eight percent of these deaths involved only cocaine, while 72 percent also involved other drugs.

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 in 2003 shows the extent of the cocaine problem on the border (exhibit 5).

Exhibit 6 shows the proportion of substances identified as cocaine by the DPS labs decreased. In 1998, cocaine was 40 percent of all items examined, as compared to 31 percent in 2003.

In the second quarter of 2004, powder cocaine was reported by the Dallas DEA Field Division as being abundant and available in ounce to gram quantities. The DFW metroplex is both a transshipment point and a center for regional distribution. Powder cocaine 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. The availability of powder cocaine according to the DEA's Houston Field Division is described as consistent though availability has increased in Laredo, and crack continues as the primary drug of choice in Beaumont and Galveston.

Across the State, a rock of crack costs between $10–$50 with $10–$20 being the most common price. An ounce of crack cocaine costs $400–$650 in Houston, $750–$1,100 in Dallas, $550–$750 in Tyler, $500–$800 in Beaumont, $450–$850 in Amarillo and Lubbock, $400–$600 in San Antonio, $830 in El Paso, $800–$900 in Midland, $500 in McAllen, and $650–$750 in Fort Worth.

A gram of powder cocaine costs $50–$80 in Dallas, $50–$60 in El Paso, and $100 in Amarillo and Lubbock. Cocaine is less expensive at the border. An ounce in Laredo costs $400–$500, $500–$600 in El Paso, $400–$650 in Houston, $650–$950 in Dallas, $600 in Alpine, $600 in Alpine, $400–$600 in McAllen, $500–$700 in San Antonio, $650–$850 in Amarillo, $500–$850 in Lubbock, $700–$1,000 in Tyler, and $600–$750 in Fort Worth. The price for a kilogram ranges between $11,000–$22,500 across the State, and prices have remained very stable since 1997 (exhibit 7).

In Austin, street outreach workers reported an increase in crack use among young Hispanic males in their teens and early 20s and older heroin dealers who smoke it at night to stay awake to sell their heroin. Crack is being cut with vitamin B-12 to "give it a speed effect," and a price war has resulted in 2 rocks of crack being sold for $15 rather than the usual price of 1 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 reported that they can taste the different Kool-Aid flavors after the injection gets into their system.

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 alcohol in the last month. In 2002, 71 percent had ever used alcohol and 35 percent had drunk alcohol in the last month, indicating that prevalence rates for alcohol use have stayed roughly the same over the years.

Heavy consumption of alcohol or binge drinking, which is defined as drinking 5 or more drinks at one time, is of concern. In 2002, 17 percent of all secondary students said that when they drank, they usually drank 5 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 5 or more beers has decreased since 1988. While the percentage of binge drinking of wine or wine coolers has fallen from its peak in 1994, it is still higher than in 1988 (exhibit 8). The percentage of binge drinking of hard liquor has remained relatively stable since 1994.

Among students in grades 4–6 in 2002, 25 percent had ever drunk alcohol and 16 percent had drunk alcohol 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 (DSM 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 (DSM-IV).

In 2003, 30 percent of all clients admitted to publicly-funded treatment programs had a primary problem with alcohol. They were the oldest of the clients (average age of 37) and 70 percent were male. Some 60 percent were White, 24 percent were Hispanic, and 14 percent were Black.

Far more persons die as an indirect result of alcohol, as exhibit 9 shows. Direct deaths are those where the substance, alcohol or drugs, caused the death, while indirect deaths are those where the actual cause of death was due to another reason, such as a car wreck or a violent crime in which alcohol or drugs were involved.

The Dallas metropolitan medical examiners reported that 27 percent (118 deaths) of the drug-involved deaths in the Dallas metro area in 2002 also involved alcohol. Of these combinations, 27 also involved cocaine, 4 involved heroin/morphine, and 4 involved both cocaine and heroin/morphine.

More Texans are arrested for public intoxication (PI) than for any other substance abuse offense, although the arrest rate for PI per 100,000 population is decreasing. The rates for the other substance abuse offenses are fairly level (exhibit 10).

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 ranged from 181 in 1998 to a high of 296 in 2000 and dropped to 208 in 2003. In 2003, the average age was 35 and 66 percent were male. In 2003, 14 heroin exposures involved intentional misuse or abuse of heroin by inhalation (snorting or smoking), and the average age of these inhalers was 33. This finding shows that injectors tend to be older than inhalers in this dataset as well as in the treatment data.

Heroin is the primary drug of abuse for 10 percent of clients admitted to treatment. The characteristics of these addicts vary by route of administration, as exhibit 11 illustrates. Most heroin addicts entering treatment inject heroin. While the number of individuals who inhale heroin is small, it is important to note that the lag period from first use and seeking treatment is 8 years rather than 15 years for injectors. This shorter lag period means that contrary to street rumors that "sniffing or inhaling is not addictive," inhalers can become addicted. They will either enter treatment sooner while still inhaling or they will shift to injecting, increase their risk of hepatitis C and HIV infection, become more impaired, and enter treatment later.

Exhibit 12 shows that the proportion of clients who are Hispanic has increased since 1996 but there has been little change between 2002 and 2003.

There were 371 deaths statewide with a mention of heroin or narcotics in 2002 (exhibit 13). The death rate has more than doubled from 0.85 per 100,000 population in 1992 to 1.73 per 100,000 population in

2002. Of those who died in 2002, 58 percent were White, 32 percent were Hispanic, and 10 percent were Black. Some 80 percent were male. The average age of the decedents continues to increase; in 2002 it was 39.3 years.

The DAWN reporting system, which collects more detailed reports from medical examiners in the Dallas area, reported that the number of deaths involving a mention of heroin or morphine increased from 66 in 1996 to 84 in 2002. Ninety-eight percent of these deaths involved the use of heroin plus at least one other drug.

The results for arrestees testing positive for opiates between 1991 and 2003 as shown in exhibit 14 have remained mixed and well below the levels testing positive for cocaine as shown in exhibit 5.

Exhibit 6 shows that the proportion of items identified as heroin by DPS labs has remained consistent at 1–2 percent over the years.

According to the 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 is available throughout the area. White heroin is available in isolated instances in the large metropolitan areas. Most of the heroin comes from Mexico or Colombia. The Dallas Field Division reports that white heroin is more readily available in the area, and that Mexican traffickers are now producing white and beige-colored heroin using Colombian production methods to cater to a wider clientele. The white heroin is manufactured in the State of Durango. The presence of a higher quality heroin in Texas will mean more overdoses in the near future and more persons in need of treatment in the distant future.

DEA's Domestic Monitor Program (DMP), which reports the price and purity of heroin, found that in 2003, Mexican heroin remained the most readily available type of heroin in Texas. No samples of the other forms of heroin were purchased by DEA agents in Texas under the DMP program in 2003. Heroin bought in El Paso has a much higher purity, since it has not been as diluted as the heroin that has moved across the State to Dallas, Houston, and San Antonio. But even in Dallas and Houston, the purity has increased and the price has decreased over the years (exhibit 15).

The predominant form of heroin in Texas is black tar, which has a dark gummy, oily texture that can be diluted with water and injected. Exhibit 16 shows the decline in price over the years. Depending on the location, black tar heroin sells on the street for $10–$20 a 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 $100 per gram and $1,000–$1,500 per ounce. In Alpine, heroin costs $125 per gram and $2,100–$2,200 per ounce, in Midland an ounce costs between $1,800–$4,000, and in Lubbock it costs $250 per gram and $3,500–$4,500 per ounce. In Houston, an ounce costs $1,200–$2,600, in Laredo an ounce costs $1,300, and in San Antonio, an ounce costs $1,600–$2,800.

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 $500–$800 per ounce, and it costs $800 per ounce in McAllen.

Colombian heroin sells for $10 per cap and $2,000 per ounce and $70,000–$80,000 per kilogram in Dallas. Asian heroin costs $200–$350 per gram, $2,000–$4,000 per ounce, and $70,000 per kilogram in Dallas.

This author has interviewed heroin addicts in methadone treatment 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 R21 DA014744. As noted in exhibit 11, 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 that 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 or not 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 know 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.

HIV outreach workers in Austin reported that some white heroin is available. The price was the same as black tar, $20 a balloon. The heroin, which was reported to be potent, is brown with a creamy texture. It breaks down very easily and cotton is not needed to filter the solution when it is being drawn up into a syringe. Multiple heroin overdoses and some deaths have been reported by the outreach team. In addition, there were reports of Southwest Asian heroin, which is being brought home by troops rotating out of Iraq.

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. In Fort Worth, heroin is sold as grams, "pills," and "turds." 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.

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 lifetime use of other opiates was 4.4 percent and past-month use was 0.5 percent in 2000. In comparison, use was lower in 1996, with lifetime use at 3 percent and past-month use at 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, but use of oxycodone is growing faster, as exhibit 17 shows. The number of cases of hydrocodone misuse or abuse reported to Texas Poison Control Centers rose from 192 in 1998 to 414 in 2003, an increase of 112 percent in the rate per 100,000. Average age in 2003 was 32, and 52 percent were male. In comparison, the number of oxycodone misuse or abuse cases rose from 12 in 1998 to 64 in 2003, a 390 percent increase in the rate per 100,000 population. Average age in 2003 was 30.6, and 63 percent were male. In 2003, there were 3 cases which involved intentional misuse or abuse by inhaling oxycodone, and the average age was 20 years. Inhalation of oxycodone is not as common as injecting, but this phenomenon may represent the beginning of a new trend among younger users in Texas.

The number of cases involving misuse or abuse of methadone increased from 17 in 1998 to 53 in 2002 and dropped to 41 in 2003, which is a 134 percent increase in the rate per 100,000 population. In 2003, average age was 31, and 68 percent were male. Of the 41 cases reported, 31 took the drug orally, 1 injected, and 4 were reported to have inhaled methadone pain pills; average age of the inhalers was 29.6 years.

Some 4 percent of all clients who entered publicly-funded treatment during 2003 used opiates other than heroin. Of these, 66 used illegal methadone and 2,227 used other opiates. Those who reported a primary problem with illicit methadone were female (58 percent) and the average age was 35 years old. A majority of these clients were White (73 percent) with smaller percentages of Hispanic (15 percent) and Black (12 percent) clients. Nine percent were homeless, 12 percent were employed, 33 percent were referred by the criminal justice system, and 32 percent had never been in treatment. Of those with problems with other opiates, 54 percent were female, average age was 35, 84 percent were White, 35 percent had never been in treatment, 8 percent were homeless, 16 percent were employed, and 30 percent were referred by the criminal justice system.

The number of deaths due to these substances is increasing. There were 56 deaths statewide with a mention of oxycodone and 168 with a mention of hydrocodone in 2002 (exhibit 17). There were also 131 deaths with a mention of methadone in 2002, and there were 9 deaths in 2001 involving fentanyl and 22 in 2002.

Narcotic treatment programs are required to report deaths of their clients, and between 1994 and 2002, there were 776 deaths. Twenty percent died of liver disease, 18 percent of cardiovascular disease, and 14 percent of drug overdose. Compared to the standardized Texas population, narcotic treatment patients were 4.6 times more likely to die of a drug overdose, 3.4 times more likely to die of liver disease, 1.7 times more likely to die of a respiratory disease, 1.5 times more likely to die of a homicide, and 1.4 times more likely to die of AIDS.

In the Dallas DEA Field Division, there has been an increase in seizures of codeine cough syrup and in Tyler, OxyContin has surpassed hydrocodone as the drug of choice among abusers of pharmaceuticals. Dilaudid sells for $20–$40 per tablet, Soma sells for $4–$5 per tablet, and hydrocodone (Vicodin) sells for $5 per tablet. OxyContin sells for $1 per milligram. Methadone sells for $40 per tablet, and promethazine syrup with codeine sells for $200–$300 per pint in Dallas and $20-$40 per ounce. In the Houston Field Division, hydrocodone, promethazine with codeine, and other codeine cough syrups are the most commonly abused pharmaceutical drugs. In Houston, promethazine or phenergan cough syrup with codeine sells for $75–$100 for 4 ounces, $125 for 8 ounces, and $1,600 for a gallon. In San Antonio, hydrocodone sells for $1-$5 per pill, OxyContin costs $1 per milligram, and one pill costs $25 in McAllen. Dilaudid sells for $10–$15 per dose in McAllen.

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 an increase in the number of hydrocodone exhibits examined from 479 in 1998 to 1,212 in 2003. In comparison, the number of exhibits involving oxycodone increased from 36 in 1999 to 174 in 2003 and the number of exhibits involving methadone increased to 63 in 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 6–8 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 Black community to Hispanics and Whites. Pineapple-flavored soda water is now a favorite to mix with cough syrup.

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 past school year dropped from 2.1 percent to 1.7 percent. Among Texas secondary students (grades 7–12), 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 18).

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. The 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 ages 18–25, and 1.9 percent of those ages 26 and older reporting past-month use.

The Texas Poison Control Centers reported there were 135 calls confirming exposure to marijuana in 1998, as compared to 406 in 2003, an increase of 172 percent in the rate per 100,000 population. Average age in 2003 was 22.5 and 67 percent were male.

Marijuana was the primary problem for 19 percent of admissions to treatment programs in 2003. The average age was 21. Some 43 percent were Hispanic, 33 percent were White, and 22 percent were Black. Seventy-nine percent had legal problems or had been referred from the criminal justice system, and these clients did not appear to be as impaired as those who came to treatment for other reasons. The criminal justice-referred clients reported using marijuana on 7 days in the month prior to admission, as compared to 13 days for the non-criminal justice referrals. The same differences were reported for number of days in the past month that the second problem drug was used (3.1 days vs. 6.5 days) and the number of days a third problem drug was used (2.7 days vs. 6.4 days).

The Addiction Severity Index scores were lower for justice referrals: 29.9 percent of the criminal justice referrals reported employment problems vs. 44.3 percent non-criminal justice referred clients; for sickness or health problems, 14.1 percent vs. 21 percent; for family problems, 25.6 percent vs. 43 percent; for social problems with peers, 19.4 percent vs. 33.3 percent; for emotional problems, 17.9 percent vs. 37.0 percent, and for substance abuse problems, 34.2 percent vs. 54.3 percent. These differences, all of which were significant at $p<.0001$, 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 medical examiner system reported there were 65 deaths in the Dallas metro area in 2001 and 43 in 2002 where marijuana was one of the substances identified.

The percentage of arrestees testing positive for marijuana varies (exhibit 19). It has dropped from its peak level in Dallas in 1997 but was at its highest level in Houston and San Antonio in 2003.

Cannabis was identified in 35 percent of all the exhibits analyzed by DPS laboratories in 2000, but dropped to 29 percent in 2003 (exhibit 6).

The Houston DEA Field Division reports marijuana continues to be readily available, with a slight increase in availability in McAllen and a slight decrease in Laredo. Hydroponic marijuana from the Northwest U.S. and Western Canada is readily available, especially in the Asian communities. The Dallas Field Division reports imported Mexican marijuana, coupled with domestically cultivated plants and indoor-grown operations, continue to provide large amounts of cannabis to consumers locally and within the U.S.

High quality sinsemilla sells for $750–$1,200 a pound in the Dallas/Fort Worth area. The average price for a pound of commercial grade marijuana is between $140–$160 in Laredo, $130–$165 in McAllen, $350–$450 in San Antonio, $350–$450 in Houston, $500 in El Paso, $500–$700 in the Alpine area, $375–$600 in Midland, $350–$600 in the Dallas/Fort Worth areas, $500–$600 in Lubbock, and $500–$550 in Tyler. Locally grown indoor marijuana sells for $6,000 per pound in Dallas. Exhibit 20 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 a pound, $50–$60 an ounce, or $2 a joint. There are various types of "Hydro" weed, which comes in bright neon colors and has 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;" an ounce is called an "O" and a half-ounce is called a "1/2 O."

Stimulants

Uppers include prescription drugs including amphetamine pills such as 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 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 of uppers and 1 percent reported past-month use of uppers in 2000. In comparison, lifetime use was 10 percent and past-month use was 1 percent in 1996. The difference in past-year use from 1996 to 2000 (1.1 percent to 1.9 percent) was statistically significant.

There were 144 calls to Texas poison control centers involving exposure to methamphetamines in 1998, 183 in 1999, 264 in 2000, 321 in 2001, 382 in 2002, and 389 in 2003, an increase of 150 percent in the rate per 100,000. Average age in 2003 was 27.7 years and 65 percent were male. In 2003, there were 46 mentions of "Ice" and 25 mentions of "Crystal." Of the cases in 2003, 47 involved intentional inhalation of methamphetamine. Average age was 24.3, which shows the same pattern as treatment data in exhibit 22, where snorters and smokers were younger than injectors.

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 30 percent in 2003 (exhibit 21).

Methamphetamine and amphetamines comprised 9 percent of admissions to publicly-funded treatment in 2003; this is an increase from 5 percent in 2000. Exhibit 22 shows the characteristics of clients by route of administration. The average client admitted for a primary problem with stimulants is aging. In 1985, average age was 26; in 2003, it was 30. The proportion of White clients has risen from 80 percent in 1985 to 91 percent in 2003, while the proportion of Hispanics has dropped from 11 percent to 6 percent and the proportion of Blacks has dropped from 9 percent to 1 percent. Unlike the other drug categories, more than half of these clients entering treatment are women (52 percent). Those who took the substance orally tended to be users of amphetamine pills.

Methamphetamine injectors were more likely to have been in treatment before (57 percent readmissions) as compared to amphetamine pill takers (47 percent), Ice smokers (41 percent), or inhalers (41 percent).

There were 17 deaths where amphetamines or methamphetamines were mentioned in 1997, 20 in 1998, 21 in 1999, 39 in 2000, 51 in 2001, and 131 in 2002.

The DAWN medical examiner system reported 46 deaths with a mention of methamphetamines and 7 with a mention of amphetamines in the Dallas metropolitan area in 2002.

Given the high rate of seizures, which proved to be methamphetamine when tested by the DPS labs, the low percentage of arrestees testing positive for methamphetamines in ADAM is puzzling, although the percentages increased in 2003 (exhibit 23).

To make methamphetamine, local labs are using the "Nazi method," which includes ephedrine or pseudoephedrine, lithium, and anhydrous ammonia, and the "cold method," which uses ephedrine, red phosphorus, and iodine crystals. The "Nazi method" is the most common method used in North Texas. Before these methods became common, most illicit labs used the "P2P method," which is based on 1-phenyl-2-propanone. The most commonly diverted chemicals are 60 mg. pseudoephedrine tablets such as Xtreme Relief, Mini-Thins, Zolzina, Two-Way, and Ephedrine Release.

Methamphetamine and amphetamine together comprised between 12 and 18 percent of all items examined by DPS laboratories between 1998 and 2002 (exhibit 6), but the numbers are increasing. In 2003, 22.9 percent of the exhibits were methamphetamine and less than 1 percent were amphetamines.

Stimulants were more of a problem in the northern half of the State as exhibit 24 shows. In Amarillo, a city in the Texas Panhandle, 49 percent of all of 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 were 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. The Houston Field Division reports that most of the methamphetamine in the Division is produced in Mexico, although domestically produced methamphetamine is made by motorcycle gangs and small home producers using pseudoephedrine, anhydrous ammonia, red phosphorous, iodine, lithium batteries, or muriatic acid.

Blister packs of cold tablets are the predominant supply source for pseudoephedrine, although the 240 mg. tablets are also seen. Red phosphorus can be purchased at gun shows, and there are reports of increasing use of the lithium metal/anhydrous ammonia ("Nazi" method) in the manufacturing process. There are also numerous laboratories operating in East Texas, Corpus Christi, and the Austin and Waco areas. Crystal methamphetamine is being encountered on an increasing basis and it is more expensive than powdered methamphetamine.

The Dallas Field Division reports availability is high at the retail level. Mexican methamphetamine dominates the market and can be purchased in multi-pound quantities from a variety of sources. Ice is the most abundant form now seen in the area, with quantities of 1 to 10 pounds available. Intelligence indicates that drug traffickers are shifting their efforts to Ice, which is more profitable than regular methamphetamine. Use of Ice is growing, with sales in clubs and raves now rivaling the volume of ecstasy sales. Ravers who previously used MDMA have tried Ice and now prefer it.

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, $7,000 in McAllen, $4,000–$10,500 in Dallas, $5,000–$10,000 in Fort Worth, and $8,000–$9,000 in Lubbock. A gram sells for $70–$100 in Dallas, $70–$100 in Tyler, $90 in El Paso, and $100 in Midland. An ounce of domestic methamphetamine sells for $700–$1,500 in Dallas, while an ounce of Mexican sells for $400. An ounce of methamphetamine sells for $600–$800 in Fort Worth, $600–$1,200 in Tyler, $400–$1200 in Lubbock, $500–850 in Houston, $700–$1,000 in San Antonio, and $600–$800 in McAllen.

Ice sells for $13,000–$17,000 per pound in Houston, $8,000–$12,000 in San Antonio, $9,000 per pound in McAllen, $8,500–$19,000 in Dallas, and $10,000–$18,000 in Tyler.

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 percent of the clients entering treatment in 2003 had a primary problem with barbiturates, sedatives, or tranquilizers.

There were 59 deaths in the Dallas metropolitan area in 2002 that involved benzodiazepines and 42 of these mentioned diazepam according to the DAWN medical examiner reporting system.

Alprazolam, clonazepam, and diazepam are among the 10 most commonly identified substances according to DPS lab reports, although none of them comprise more than 2 percent of all items examined in a year. The proportion of cases that are alprazolam (Xanax) continues to increase (exhibit 25).

Alprazolam sells for $3–$5 in Dallas, Fort Worth, and Houston, and for $4–$10 in Tyler. Depending on the dosage unit, diazepam sells for $1–$10 in Dallas, Fort Worth, and Tyler.

Club Drugs and Hallucinogens

Exhibit 26 shows the demographic characteristics of clients entering TCADA-funded 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 LSD, DMT, STP, mescaline, psilocybin, and peyote.

Based on exhibit 26, hallucinogen admissions are the most likely to be male, GHB clients are the most likely to be White, PCP clients are the most likely to be Black, Rohypnol clients are the youngest, and GHB clients are the oldest. While users of PCP are the most likely to have a primary problem with PCP, users of Rohypnol, ecstasy, and hallucinogens are more likely to have a primary problem with marijuana, rather than with a club drug.

Exhibit 27 shows the percent of exhibits identified by DPS laboratories that contained various club drugs. Notice the decrease in the percentage of cases involving LSD and ecstasy (MDMA and 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 23 calls involving misuse or abuse of ecstasy in 1998, 46 in 1999, 119 in 2000, 155 in 2001, 172 in 2002, and 166 in 2003 (19 of these either smoked or snorted the drug). Average age of the ecstasy abusers in 2003 was 21.9 years.

There were 63 admissions for a primary, secondary, or tertiary problem with ecstasy in 1998, 114 in 1999, 199 in 2000, 349 in 2001, 521 in 2002, and 502 in 2003. Exhibit 26 shows that in comparison to users of other club drugs, those who used ecstasy were more likely to be young and racially diverse. Approximately 41 percent reported marijuana as their primary problem drug, as compared to 14 percent who reported ecstasy as their primary problem drug. Exhibit 28 shows that ecstasy has spread outside the White club scene and into the Hispanic and Black communities as evidenced by the declining proportion of White clients.

In 1999, there were 2 deaths that involved ecstasy in Texas. There was 1 death in 2000, 5 in 2001, and 5 in 2002. Of those who died in 2002, the average age was 23.4. All were White; 60 percent were male.

Exhibit 27 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 426 in 2003. MDA was identified in 31 exhibits in 1999, 27 in 2000, 48 in 2001, 90 in 2002, and 86 in 2003.

According to the Houston DEA Field Division, ecstasy is available and use is increasing in the Galveston, Beaumont, and Fort Hood areas. A large-scale Vietnamese organization is distributing ecstasy and methamphetamine in the Houston area. Availability is down in Austin, although ecstasy can still be obtained at nightclubs. Drug abuse counselors in the McAllen area report an increase in teenagers being referred to treatment for ecstasy use after the end of Spring Break.

The Dallas DEA Field Division reports that the price of MDMA has decreased and this may be due to the poor quality of the drug. Use is spreading among Blacks and among older users. Combinations of drugs mentioned in Dallas include "candy flipping" (LSD and MDMA), "hippie flipping" (mushrooms and MDMA), "love flipping" (mescaline and MDMA), "robo flipping" (DXM and MDMA), and "elephant flipping" (PCP and MDMA). Lower grade MDMA is referred to as "dirty." Repressed pills are available; the original pills are crushed and reprocessed with additional adulterants and then repressed with new logos. Viagra is sometimes added to MDMA to create "sextacy," according to the DEA report. Single dosage units of ecstasy sell for $6–$10 in Dallas, $5–$12.50 in Fort Worth, $12–$25 in Tyler, $8–$25 in Houston, $20–$35 in McAllen, $20 in Laredo, and $11–$20 in San Antonio.

Gamma Hydroxybutyrate (GHB), Gamma Butyrate Lactone (GBL), and 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, 150 in 1999, 120 in 2000, 119 in 2001, 100 in 2002, and 66 in 2003. Average age of the abusers in 2003 was 24, and of the callers whose gender was known, 64 percent were male.

Adult and adolescent clients with a primary, secondary, or tertiary problem with GHB, GBL, or 1,4 BD 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 31 in 2003. Clients who used GHB tended to be the oldest of all the club drug users and the most likely to be White. GHB users were more likely to have used the so-called "hard-core" drugs;

36 percent had a history of injecting drug use. Forty-five percent had a primary 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" (exhibit 26).

In 1999, there were 3 deaths that involved GHB, 5 in 2000, 3 in 2001, and 2 in 2002.

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 27). In 2000, 45 were GHB, 7 were GBL, and 4 were 1,4 BD. In 2001, 34 were GHB, 7 were GBL, and 19 were 1,4 BD. In 2002, 81 were GHB, 6 were GBL, and 4 were 1,4 BD. In 2003, 132 were GHB, 5 were GBL, and none were 1,4 BD. In 2003, 89 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 in the first half of 2004, GHB was not as available as it had been, and the price had increased from $100–$200 per gallon to $250–$500 per gallon. A dose of GHB costs $20 in Dallas, $5–$10 in Lubbock, and $5–$10 in San Antonio. A 16-ounce bottle costs $100 in San Antonio and 2 two-ounce bottles cost $109.99 in Fort Worth.

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 in 1999, 15 in 2000, 14 in 2001, 10 in 2002, and 17 in 2003. Average age in 2003 was 21.9 and 88 percent were male.

Thirteen clients were admitted to TCADA-funded treatment programs in 2003 with a secondary or tertiary problem with ketamine. Nearly a third had a history of injecting drug use, and 85 percent had problems with the legal or criminal justice system (exhibit 26).

There were 2 deaths in 1999 that involved use of ketamine, none in 2000, 1 in 2001, and 1 in 2002.

In 1999, 25 substances were identified as ketamine by DPS labs. There were 29 in 2000, 119 in 2001, 78 in 2002, and 78 in 2003 (exhibit 27).

Ketamine costs $2,200–$2,500 per liter in Fort Worth and $65 per vial in Tyler, with a dose selling for $20 per pill or gram, $50–$65 per 10 ml. vial in San Antonio and Tyler, where a pill sells for $20.

LSD and Other Hallucinogens

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 82 mentions of abuse or misuse of LSD in 1998, 113 in 1999, 97 in 2000, 70 in 2001, 129 in 2002, and 20 in 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 130 in 2003. In 2003, the average age of LSD cases was 21.2 and for mushrooms was 20.6.

In 2003, 319 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. Of the admissions in 2003, the average age was 23, 79 percent were male, 56 percent were White, 26 percent were Hispanic, and 15 percent were Black. Seventy-two percent were referred from the criminal justice or legal system (exhibit 26).

There were 2 deaths in 1999 that involved LSD. No deaths with a mention of LSD have been reported since.

DPS labs identified 69 substances as LSD in 1998, 406 in 1999, 234 in 2000, 122 in 2001, 10 in 2002, and 7 in 2003 (exhibit 27).

A dosage unit of LSD is selling for $1–$10 in Dallas, $5–$10 in Tyler, $6–$10 in Fort Worth, $7 in Lubbock, and $8–$12 in San Antonio.

The Houston DEA Field Division reports that 2C-E, 2,5-Dimethoxy-4-Ethylphenethylamine, a psychedelic phenethylamine that is neither scheduled nor controlled and that can be purchased on the Internet, has been found in the Houston area.

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. The number of cases involving PCP increased from 102 in 1998 to a high of 237 in 2002 and then dropped to 172 in 2003 (exhibit 29). There were also 18 cases involving misuse or abuse of formaldehyde or formalin in 2003.

Adolescent and adult admissions to treatment with a primary, secondary, or tertiary problem with PCP are increasing (exhibit 29), rising from 164 in 1998 to 417 in 2003. Of these clients in 2003, 79 percent were Black, 61 percent were male, 59 percent were involved in the criminal justice system, 21 percent were employed, and 19 percent were homeless. While 45 percent reported a primary problem with PCP, another 35 percent reported a primary problem with marijuana, which demonstrates the link between these two drugs and the use of "Fry" (exhibit 26).

There were 3 deaths in 1999, 3 in 2000, 5 in 2001, and 8 in 2002 that involved PCP (exhibit 29). In 2002, 88 percent of the decedents were Black, 88 percent were male, and the average age was 23.6.

PCP use in past years was most likely to be found among Dallas arrestees (exhibit 30).

DPS labs identified 10 substances as PCP in 1998, 84 in 1999, 104 in 2000, 163 in 2001, 95 in 2002, and 135 in 2003 (exhibit 29).

DEA reports that PCP sells for $25 per cigarette and $10 per piece of "sherm stick" in Dallas. It costs $350–$500 per ounce and $26,000–$28,000 per gallon in the Dallas/Fort Worth area. Its availability in the Houston area is increasing and it sells for $45–$80 per ounce. PCP sells for $700–$1,200 per gallon in San Antonio and $30 per dose in McAllen.

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 use in Texas first began along the Texas-Mexico border and then spread northward. As shown in exhibit 31, 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 102 in 1998, and dropped to 46 in 2003. Average age in 2003 was 17.9 years, 56 percent were male, and 76 percent lived in counties on the border.

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 331 in 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 26). Some 75 percent were involved with the criminal justice or legal system. While 15 percent of these clients said that Rohypnol was their primary problem drug, 55 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 15 in 2003. This decline in the percent of seizures, as shown in exhibit 27, parallels the declines seen in other indicators.

Although Roche is reported to no longer be making the 2 mg. 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 product 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 rose from 99 in 1998 to a high of 432 in 2002, and then dropped to 365 in 2003 (exhibit 32). The number of cases involving abuse or misuse of Coricidin HBP

was 7 in 1998 and rose to 268 in 2002 and then decreased to 189 in 2003. Average age in 2003 was 16.3 years.

DPS labs examined 2 substances in 1998 that were dextromethorphan, 13 in 1999, 36 in 2000, 18 in 2001, 42 in 2002, and 9 in 2003. The labs also examined 1 substance in 1999, 5 in 2000, 5 in 2001, 2 in 2002, and 4 in 2003 that were Coricidin HBP.

Other Abused Substances

Inhalants

The 2002 elementary school survey found that 9.3 percent of students in grades 4 to 6 had ever used inhalants, and 6.5 percent had used 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 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 Whites, and 11.8 percent of Black 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 33). 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.

Exhibit 34 shows the number of cases reported to Texas Poison Control Centers where certain substances were intentionally inhaled for purposes of abuse or misuse. The exhibit also shows the average age of the misusers. The youngest inhalers misused typewriter correction fluid, aerosol air freshener, and gasoline. The oldest group of misusers inhaled amyl or butyl nitrite (poppers), and another group in their mid-20s used automotive products, lighter fluid, or paint products.

Inhalant abusers comprised 0.3 percent of the admissions to treatment programs in 2003. The clients tended to be male (66 percent) and Hispanic (68 percent). The overrepresentation of Hispanics is due to the fact that TCADA has developed and funded treatment programs that were targeted specifically to this group. Average age was 21.

In 2000, there were 12 deaths involving misuse of inhalants, 15 in 2001, and 8 in 2002. The categorization of inhalant deaths is difficult and leads to underreporting, but of those reported in 2002, the average age was 28, 88 percent were male, 75 percent were White, and 25 percent were Hispanic.

Steroids

The 2002 Texas school survey reported that 2 percent of all secondary students surveyed in 2002 had ever used steroids and that less than 1 percent had used steroids during the month before the survey. While the overall usage rate for steroids held steady, the lifetime and current use of steroids by ninth and twelfth graders increased in the survey from two years ago.

While lifetime use of steroids among boys decreased from 3.3 percent in 2000 to 2.8 percent in 2002, it increased from 1.3 percent to 1.9 percent among girls. White youths (3 percent) had higher rates of lifetime steroid use than Hispanics (2 percent) or Blacks (1 percent). Lifetime use of steroids was 1.9 percent among border students and 2.4 percent among non-border students, while current use was identical on the border and elsewhere.

Steroid use was more common among secondary students who participated in athletics than among students who did not. However, steroid use became more popular among adolescents who did not play sports. Lifetime use of steroids among non-athletes increased from 1.5 percent in 2000 to 2.1 percent in 2002, while the use among athletes decreased from 3.0 percent to 2.4 percent.

Exhibit 35 shows the number of steroid items identified by DPS laboratories. While the numbers tend to vary by year, the overall trend is increasing.

Carisoprodol (Soma)

Poison control center confirmed exposure cases of intentional misuse or abuse of the muscle relaxant, carisoprodol (Soma), increased from 83 in 1998 to 235 in 2003, an increase of 182 percent. Between 1998 and 2003, 51 percent of these cases involved males and 83 percent involved persons over age 19. Some 37 percent of the cases were in State planning region six, which includes Houston, 18 percent were in State planning region three, which includes Dallas and Fort Worth, and 11 percent were in State planning region five, which includes Beaumont. Carisoprodol is a substance that tends to be abused in combination with other substances. Only 39 percent of the cases involved that one drug; all the others involved combinations of drugs.

In 2002, there were 65 deaths in which carisoprodol was one of the drugs mentioned on the death certificate. Only 2 of the deaths (3 percent) involved only carisoprodol; 72 percent also included hydrocodone. Propoxyphene, alcohol, and benzodiazepines were also substances that were mentioned in many cases. Average age was 39 years, 89 percent were White, and 62 percent were male.

DPS lab exhibits of carisoprodol reported to NFLIS increased from 13 in 1998 to 90 in 1999, 153 in 2000, 202 in 2001, 179 in 2002, and 237 in 2003.

BLOOD BORNE DISEASES AND DRUG USE

Hepatitis C

Exhibit 36 shows that 18 percent of the 8,798 tests for HCV exposure given in 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 Blacks, and for persons aged 40 and older. The highest HCV positivity rates by site were sexually transmitted disease clinics and drug treatment centers (22 percent each) and field outreach centers and corrections and probation settings (20 percent each).

Fifty-eight percent of the 205 heroin addicts in treatment who were interviewed by the author as part of NIDA Grant R21 DA014744 said they were positive for hepatitis C, and 63 percent said a doctor had told them they had liver problems. However, only 6 percent reported they were HIV positive.

A physician with one of the treatment programs in Austin reported that new admissions in their 30s are not as likely to test positive for HCV. These individuals began drug use after the AIDS epidemic began, and they reported being more cautious about sharing needles and using condoms.

HIV and AIDS Cases

In 2003, the percent of AIDS cases involving heterosexual exposures was greater than the percent of cases due to injecting drug use (exhibit 37). The proportion due to heterosexual contact has risen from 1 percent in 1987 to 27 percent in the first quarter of 2004, while the proportion due to injecting drug use was 20 percent.

In 1987, 3 percent of the AIDS cases were females over age 12; in the first quarter of 2004, 23 percent were female. In 1987, 12 percent of the adult and adolescent cases were Black; in 2004, 46 percent were Black. As exhibit 38 shows, the proportion of White males has dropped while the proportion of Blacks 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 White (exhibit 39).

HIV outreach workers in Dallas report that more heterosexual Black men are contacting HIV and that the drug of choice is injected heroin and crack cocaine. There are a number of women having sex for drugs and not using protection, and young Hispanic men, especially the day labor workers and illegal immigrants, do not know how to use protection and will not be tested because they fear they will be deported. Also, young Asians are testing positive, so there is a need to provide more information in the Asian communities. In Fort Worth, screenings are revealing more unprotected male-to-male sex, with participants saying they were doing it to get drugs, place to stay, or to get food.

In Corpus Christi, Black men composed 15 percent of the population surveyed by the HIV outreach team, and 30 percent of them were sex workers. Of all the individuals surveyed, 65 percent were male and 36 percent of them reported having multiple sex partners. Forty-one percent had unprotected sex. Of the women, 32 percent had multiple sex partners, 26 percent had unprotected sex, and 27 percent were sex workers. Thirty-nine percent of the women were homeless. In Galveston, outreach workers report it has become more difficult for female sex workers to solicit sex for drugs because of competition from men who do not identify themselves as gay or bisexual ("down-lows") but who have sex with men for drugs or a place to stay.

Austin outreach workers report an increase in Hispanic males between ages 18 and 25 coming in to get information on sexually transmitted diseases (STD) and HIV. In addition, new clients who use diverted prescription drugs are being seen, and program staff report that these clients are difficult to work with because of their beliefs in stereotypes that they are not drug addicts because they are using prescription drugs and also they do not think they are at risk of HIV or other diseases because "only dirty people get STDs."

The data from local STD/HIV testing sites reported to TDH show that cocaine users are at high risk of STD and HIV. Some 19 percent of the clients re-

ported using cocaine with sex in 2003, and that 29 percent of women and 7 percent of men who used cocaine sold sex and that 16 percent of men bought sex in the past year. Only 15 percent of the cocaine users reported almost always using a barrier during vaginal intercourse, 14 percent almost always used a barrier with anal intercourse, and only 8 percent almost always used a barrier with oral sex.

Among all persons tested in 2003 (regardless of cocaine use), 3 percent of males and 6 percent of females sold sex and 11 percent of males bought sex. Only 18 percent of the entire group reported almost always using a barrier during vaginal intercourse, 25 percent used a barrier with anal intercourse, and 8 percent used a barrier with oral sex.

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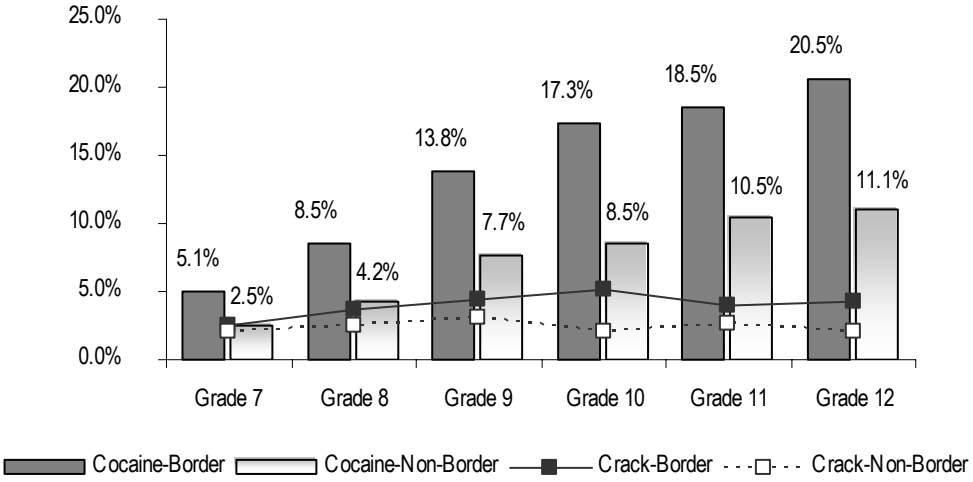
Exhibit 1. Percentage of Border and Non-Border Texas Secondary Students Who Had Ever Used Powder Cocaine and Crack, by Grade: 2002



Source: TCADA

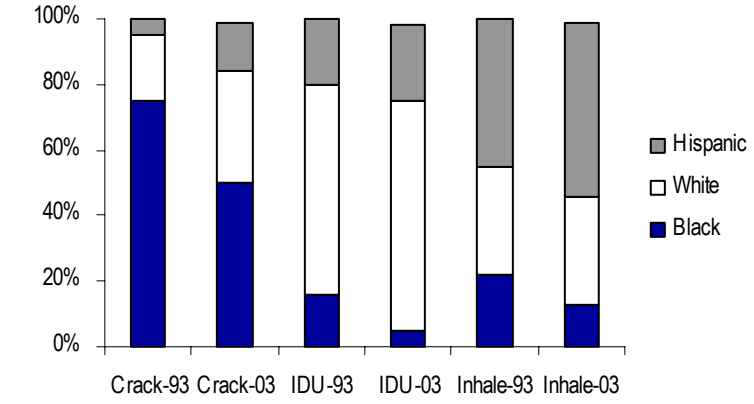
Exhibit 2. Characteristics of Clients Admitted to TCADA-Funded Treatment with a Primary Problem with Cocaine by Route of Administration: 2003

	Crack Cocaine Smoke	Powder Cocaine Inject	Powder Cocaine Inhale	Cocaine All*
# Admissions	9,660	1,164	3,039	14,016
% of Cocaine Admits	69	8	22	100
Lag-1st Use to Tmt-Yrs.	11	14	9	11
Average Age	37	34	29	35
% Male	54	62	57	55
% Black	49	5	13	38
% White	34	70	33	37
% Hispanic	15	23	53	24
% CJ Involved	37	44	56	41
% Employed	14	15	31	18
% Homeless	18	13	7	15

*Total includes clients with "other" routes of administration.

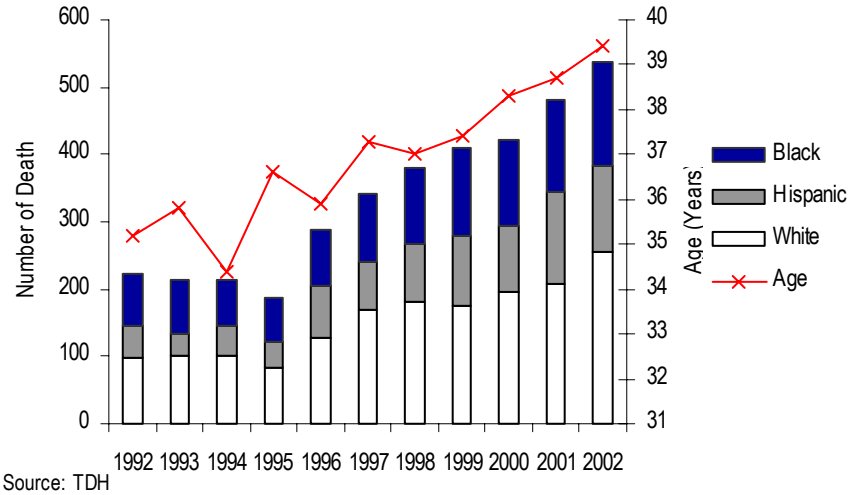
Source: TCADA

Exhibit 3. Routes of Administration of Cocaine by Race/Ethnicity from TCADA Treatment Admissions: 1993–2003



Source: TCADA

Exhibit 4. Age and Race/Ethnicity of Persons Dying with a Mention of Cocaine in Texas: 1992–2002



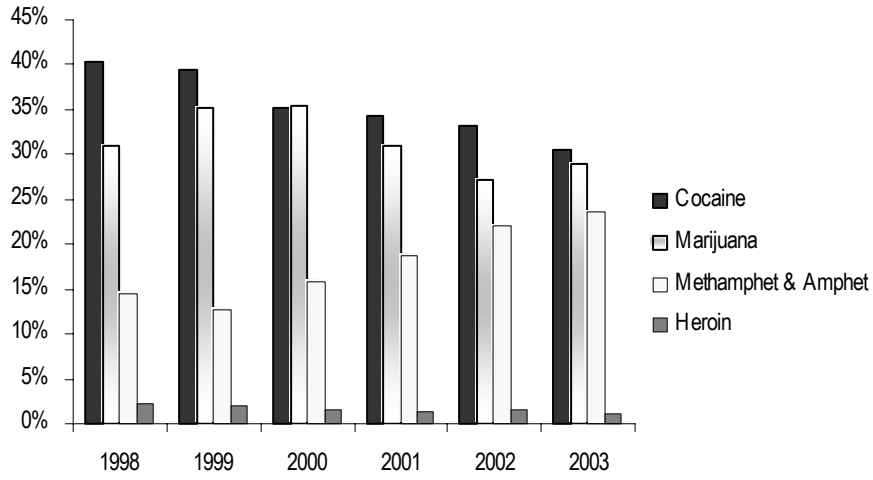
Source: TDH

Exhibit 5. Percentage of ADAM Arrestees Testing Positive for Cocaine: 1991–2003

	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	33
Houston Males	56	41	41	28	40	39	39	36	36	32	NR	NR	23
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	31
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

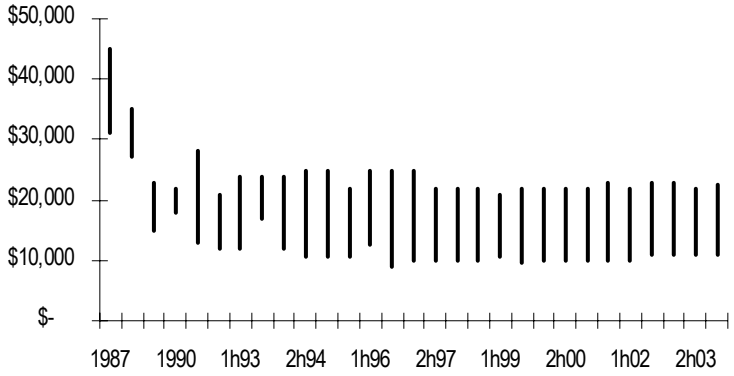
Source: NIJ

Exhibit 6. Substances Identified by Texas DPS Labs: 1998–2003



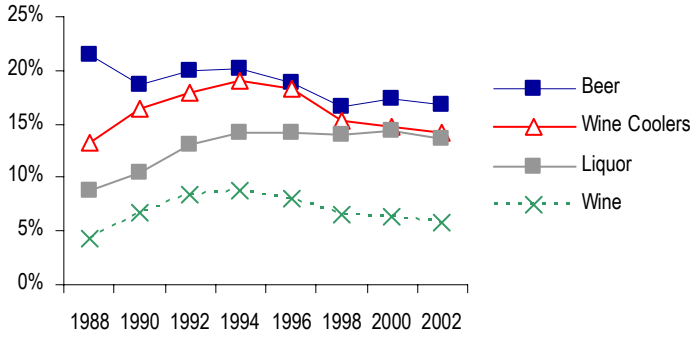
Source: NFLIS

Exhibit 7. Price of a Kilogram of Cocaine in Texas as Reported by the DEA: 1987–2004 (Prices reported by half year since 1993)



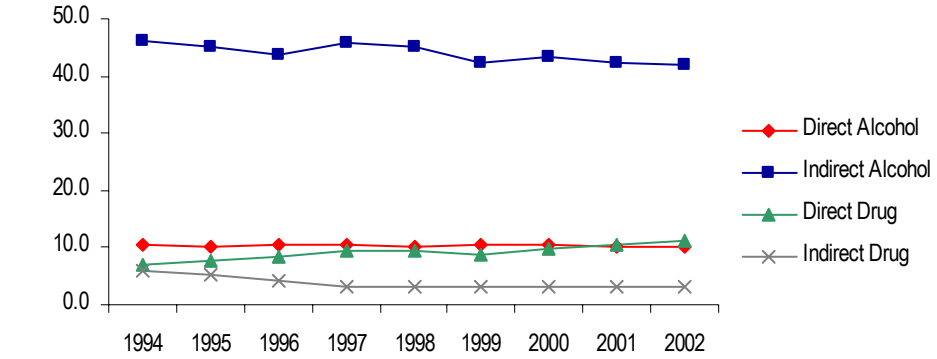
Source: DEA

Exhibit 8. Percentage of Texas Secondary Students Who Reported They Normally Consumed Five or More Drinks at One Time, by Specific Alcoholic Beverage: 1988–2002



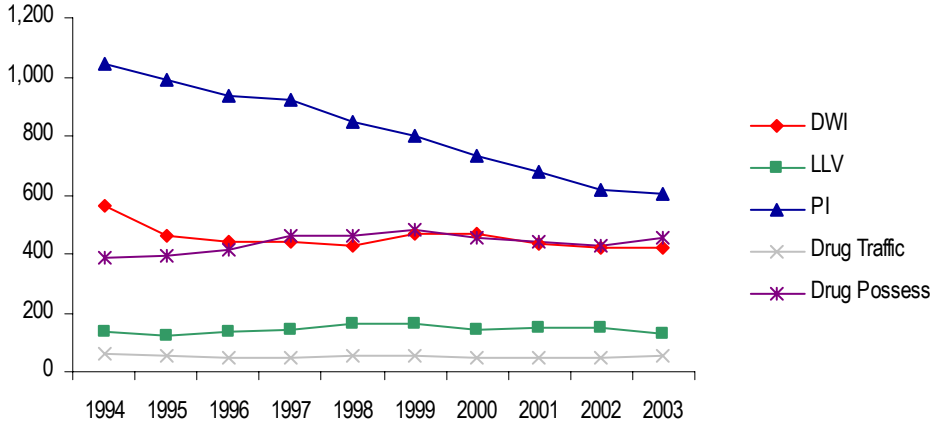
Source: TCADA

Exhibit 9. Direct and Indirect Alcohol and Drug Deaths per 100,000 Population in Texas: 1994–2002



Source: TDH

Exhibit 10. Texas Substance Abuse Arrests per 100,000 Population in Texas: 1994–2003



Source: Texas DPS

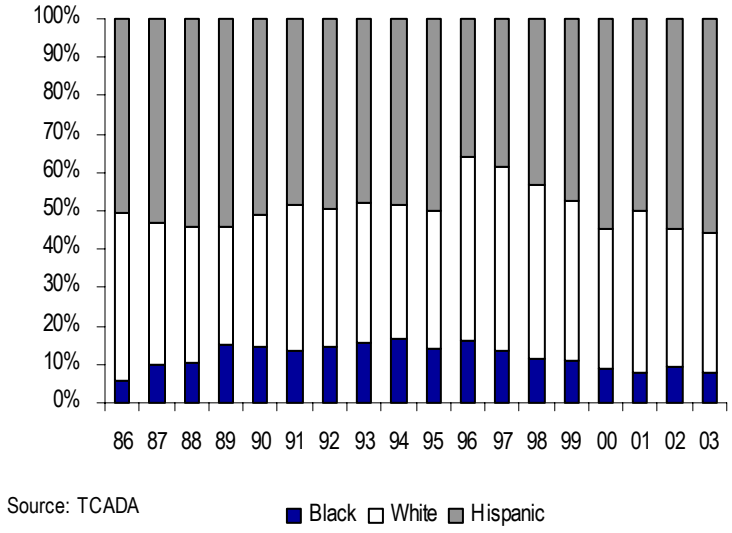
Exhibit 11. Characteristics of Clients Admitted to TCADA-Funded Treatment with a Primary Problem with Heroin by Route of Administration: 2003

	Inject	Inhale	Smoke	All*
# Admissions	4,504	422	44	4,997
% of Heroin Admits	90	8	1	100
Lag-1st Use to Tmt-Yrs.	15	8	10	15
Average Age	36	29	29	36
% Male	70	58	66	69
% Black	5	33	23	8
% White	38	19	30	36
% Hispanic	56	47	46	55
% CJ Involved	35	38	39	35
% Employed	9	14	9	9
% Homeless	15	8	14	14

*Total includes clients with other routes of administration.

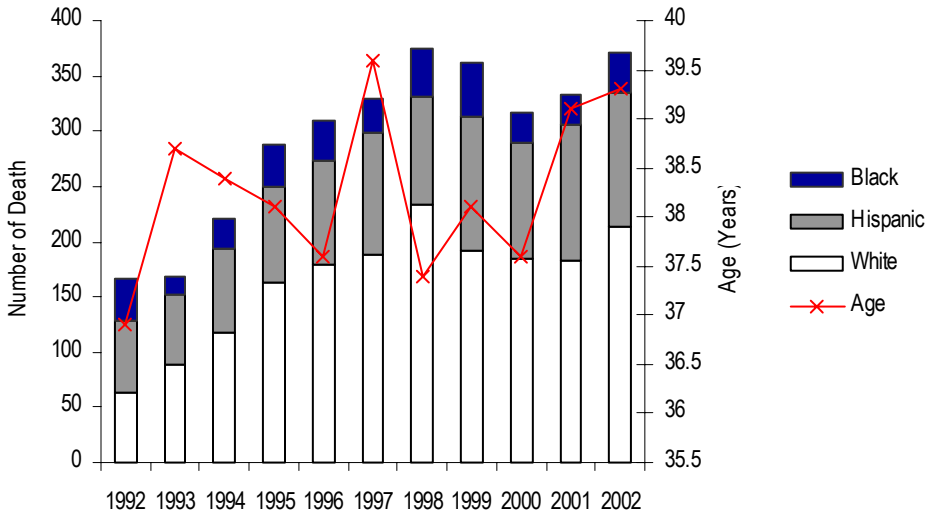
Source: TCADA

Exhibit 12. Heroin Admissions to TCADA-Funded Treatment by Race/Ethnicity: 1986–2003



Source: TCADA

Exhibit 13. Age and Race/Ethnicity of Persons Dying with a Mention of Heroin in Texas: 1992–2002



Source: TDH

Exhibit 14. ADAM Arrestees Testing Positive for Opiates: 1991–2003

	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	7
Houston Males	3	3	2	3	5	8	10	8	6	7	NR	NR	6
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	9
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

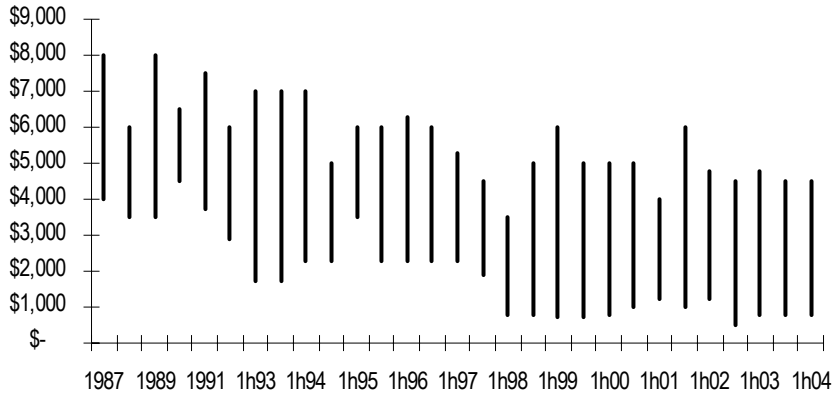
Source: NIJ

Exhibit 15. Price and Purity of Heroin Purchased in Dallas, El Paso, and Houston by the DEA: 1995–2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Dallas Purity (%)	6.8	3.5	7.0	11.8	14.0	16.0	13.4	17.2	13.3
Price/Milligram Pure	$2.34	$6.66	$4.16	$1.06	$1.01	$0.69	$1.36	$0.75	$0.98
Houston Purity (%)	16.0	26.1	16.3	34.8	17.4	18.2	11.3	28.2	27.4
Price/Milligram Pure	$1.36	$2.15	$2.20	$2.43	$1.24	$1.14	$1.51	$0.64	$0.45
El Paso Purity (%)					56.7	50.8	41.8	40.3	44.7
Price/Milligram Pure					$0.49	$0.34	$0.44	$0.27	$0.40
San Antonio Purity (%)									8.2
Price/Milligram Pure									$1.97

Source: DEA

Exhibit 16. Price of an Ounce of Mexican Black Tar Heroin in Texas as Reported by the DEA: 1987–2004 (Prices reported by half year since 1993)



Source: DEA

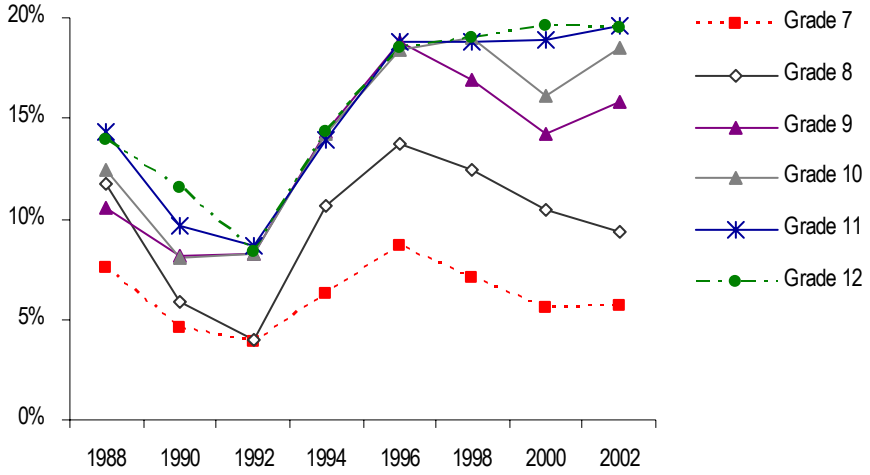
Exhibit 17. Hydrocodone, Oxycodone and Methadone Indicators in Texas: 1998–2003

	1998	1999	2000	2001	2002	2003
Poison Control Center Cases of Abuse and Misuse						
Hydrocodone	192	264	286	339	429	414
Oxycodone	12	26	22	34	68	64
Methadone	16	19	21	26	50	41
TCADA Treatment Admissions						
"Other Opiates"*	542	802	879	1,336	1,752	2,227
Methadone	53	68	44	50	63	66
Deaths with Mention of Substance (TDH)						
Hydrocodone		25	52	107	168	
Oxycodone		8	20	40	56	
Methadone	30	36	62	93	131	
Drug Exhibits Identified by DPS Laboratories						
Hydrocodone		479	629	771	747	1,212
Oxycodone		36	72	115	106	174
Methadone	1	19	22	42	49	63

* "Other Opiates" refers to those other than heroin.

Sources: TPCN, TCADA, NFLIS, and TDH

Exhibit 18. Percentage of Texas Secondary Students Who Had Used Marijuana in the Past Month, by Grade: 1988–2002



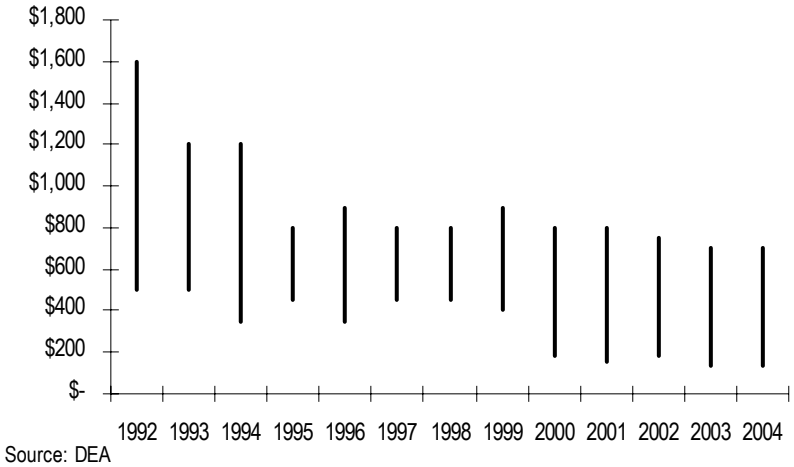
Source: TCADA

Exhibit 19. ADAM Arrestees Testing Positive for Marijuana: 1991–2003

	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	39
Houston Males	17	24	24	23	30	28	23	36	38	36	NR	NR	48
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

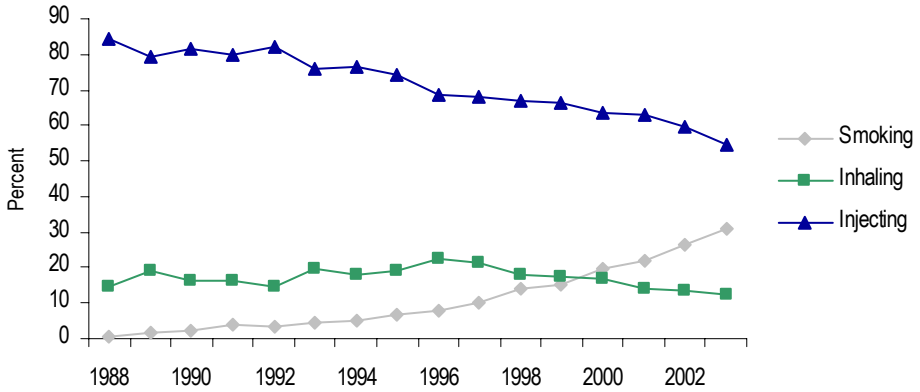
Source: NIJ

Exhibit 20. Price of a Pound of Commercial Grade Marijuana in Texas as Reported by the DEA: 1992–2004



Source: DEA

Exhibit 21. Route of Administration of Methamphetamine by Adult Clients Admitted to TCADA-Funded Programs: 1988–2003



Source: TCADA

Exhibit 22. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment with a Primary Problem of Amphetamines or Methamphetamines by Route of Administration: 2003

	Smoke	Inject	Inhale	Oral	All
# Admissions	1,310	2,325	524	252	4,500*
% of Stimulant Admits	29	52	12	6	100
Lag-1st Use to Tmt-Yrs.	8	13	9	10	11
Average Age-Yrs.	28	31	29	30	30
% Male	46	50	44	44	48
% Black	1	1	0	6	1
% White	89	93	89	83	91
% Hispanic	8	4	10	9	6
% CJ Involved	53	56	50	50	54
% Employed	25	17	34	25	22
% Homeless	7	10	6	7	8

*Total includes clients with "other" routes of administration

Source: TCADA

Exhibit 23. ADAM Arrestees Testing Positive for Amphetamines: 1991–2003

	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	6
Houston Males	0	0	0	0	0	0	0	0	0	1	NR	NR	2
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

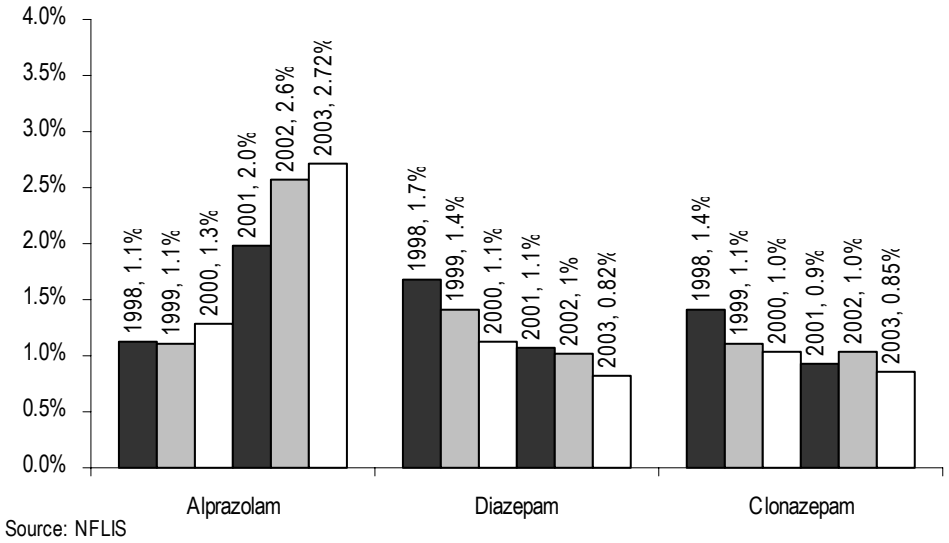
Source: NIJ

Exhibit 24. Percent of Items Analyzed by Texas DPS Laboratories in 2003 Identified as Methamphetamine, by County and City

	%
Hidalgo (McAllen)	0.40
Webb (Laredo)	0.28
El Paso (El Paso)	4.65
Nueces (Corpus Christi)	8.84
Harris (Houston)	8.32
Travis (Austin)	21.84
McLennan (Waco)	28.53
Smith (Tyler)	28.88
Dallas (Dallas)	36.45
Midland (Odessa)	13.87
Taylor (Abilene)	47.80
Lubbock (Lubbock)	27.02
Potter (Amarillo)	48.87

Source: NFLIS

Exhibit 25. Benzodiazepines Identified by DPS Labs in Texas: 1998–2003



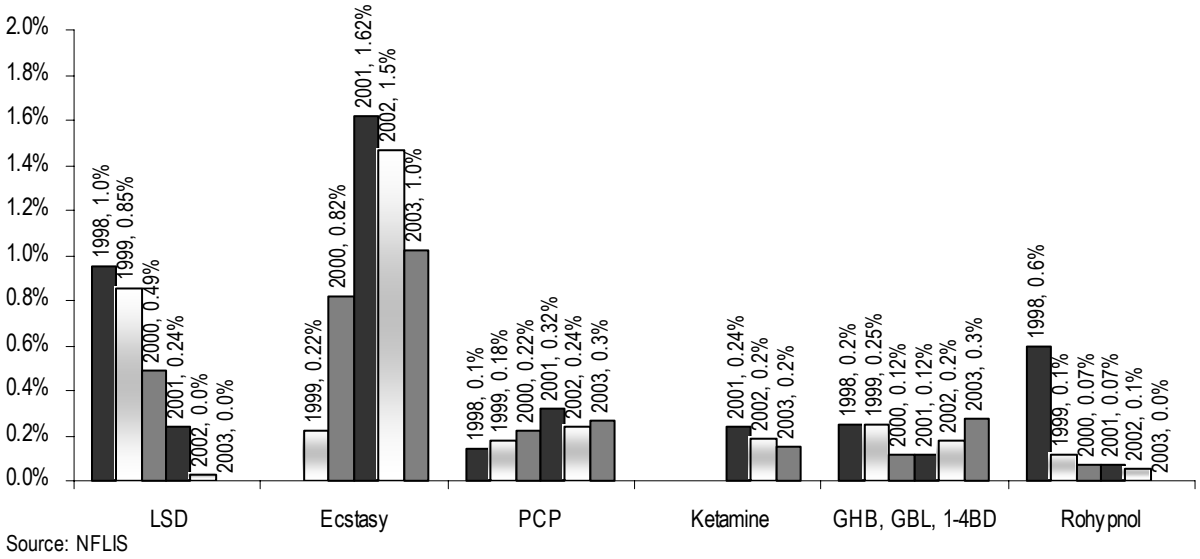
Source: NFLIS

Exhibit 26. Characteristics of Youth and Adult Clients Admitted to TCADA-Funded Treatment with a Primary, Secondary, or Tertiary Problem with Club Drugs: 2003

	GHB	Hallucinogens	Ecstasy	PCP	Ketamine	Rohypnol
# Admissions	31	319	502	417	13	331
% Male	39	79	58	61	77	72
% White	77	56	51	12	54	2
% Hispanic	7	26	28	9	31	93
% Black	0	15	18	79	8	2
Average Age	28	23	21	23	24	17
% Criminal Justice Involved	45	72	65	59	85	75
% History Needle Use	36	22	14	7	31	14
Primary Drug=Club Drug	16	21	14	45	15	15
Other Primary Drug						
Marijuana	13	40	41	35	15	55
Alcohol	13	10	12	6	23	3
Methamphet/Amphetamines	45	10	10	1	15	0
Powder Cocaine	7	7	12	5	15	16
Crack Cocaine	3	3	4	7	0	4
Heroin	3	3	1	1	8	7

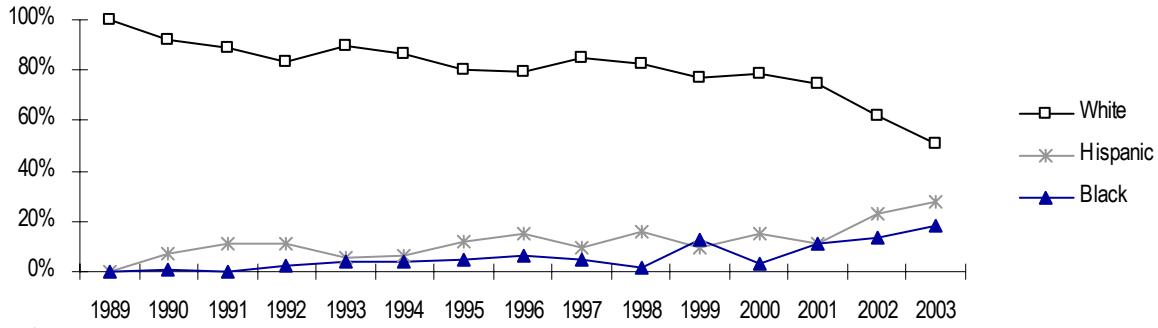
Source: TCADA

Exhibit 27. Club Drugs Identified by DPS Labs in Texas: 1998–2003



Source: NFLIS

Exhibit 28. Characteristics of Clients Admitted to TCADA-Funded Treatment with a Problem with Ecstasy: 1989–2003



Source: TCADA

Exhibit 29. PCP Indicators in Texas: 1998–2003

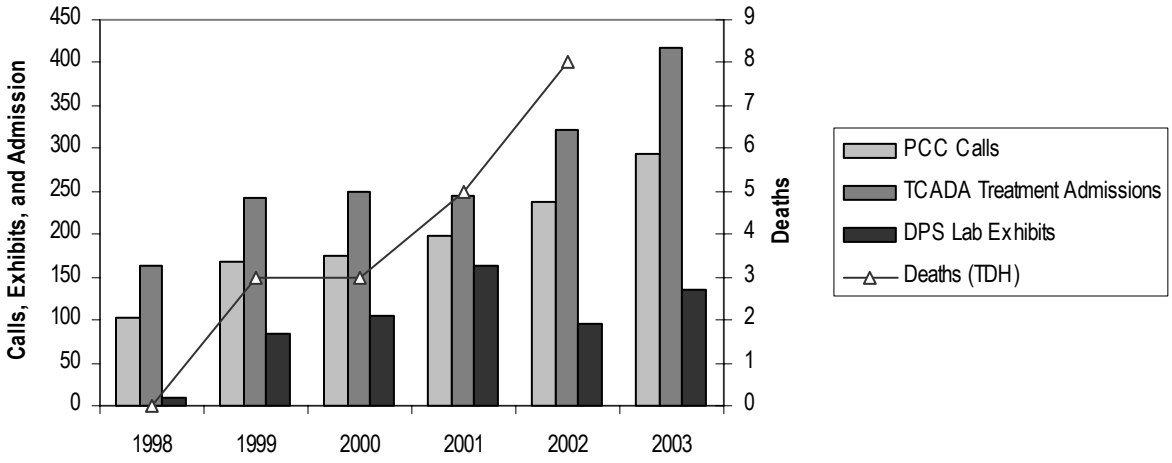
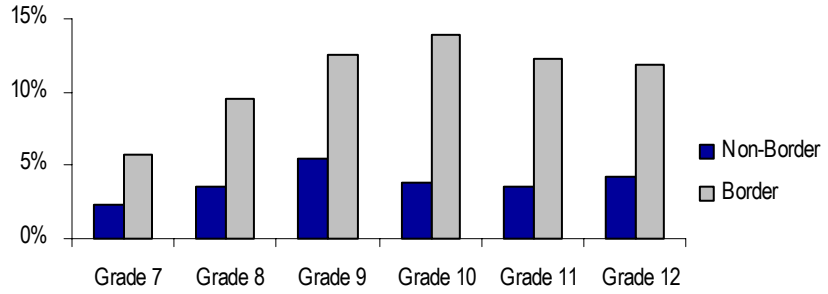


Exhibit 30. ADAM Arrestees Testing Positive for PCP: 1991–2003

	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
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

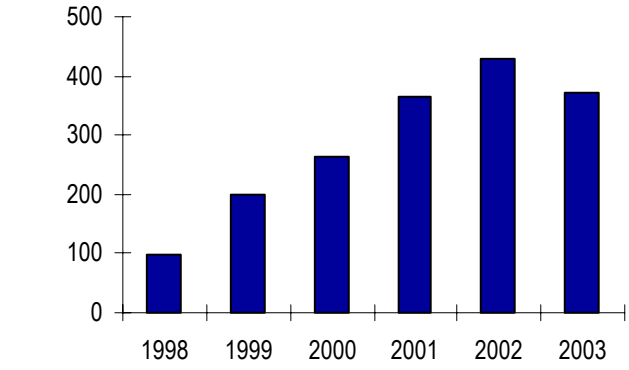
Source: NIJ

Exhibit 31. Percentage of Border and Non-Border Texas Secondary Students Who Had Ever Used Rohypnol, by Grade: 2002



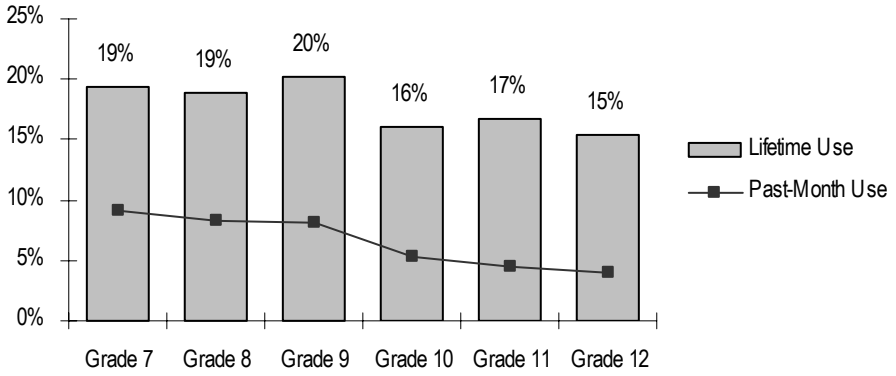
Source: TCADA

Exhibit 32. DXM Abuse and Misuse Calls to Texas Poison Control Centers: 1998–2003



Source: TPCN

Exhibit 33. Percentage of Texas Secondary Students Who Had Used Inhalants Ever or in the Past Month, by Grade: 2002



Source: TCADA

Exhibit 34. Exposures Involving Misuse or Abuse of Inhalants Reported to the Texas Poison Center Network by Year: 1998–2003

Product	1998	1999	2000	2001	2002	2003	Total 1998–2003	Avg. Age 1998–2003
Air Freshener: Aerosol	4	3	9	3	10	4	33	14.6
Amyl/Butyl Nitrite	1	2	1	1		8	13	27.6
Automotive Product: Hydrocarbon (Transmission Fluid, Power Steering Fluid)	6	7	10	16	16	23	78	20.2
Automotive Product: Methanol (Dry Gas, Windshield Washing Solution)	5	5	9	14	18	23	74	25.3
Formaldehyde/Formalin	5	8	15	5	12	4	49	22.1
Freon/Other Propellant	23	24	21	20	23	15	126	17.6
Gasoline	24	19	16	18	18	6	101	14.8
Lighter Fluid/Naphtha	1	1	2	1	1		6	24.3
Mineral Spirits/Varsol/Stoddard Solvent	3	6	5	6	4	2	26	23.5
Nitrous Oxide	4	4	2	5	4	2	21	23.4
Paint: Oil-Base	30	22	17	18	20	7	114	23.6
Propane and Other Simple Asphyxiants	18	14	10	4	10	7	63	15.5
Toluene/Xylene (excluding Adhesives)	10	19	14	10	10	4	67	24.3
Typewriter Correction Fluid	2	4	3	1	3	2	15	12.9
Unknown Paint, Varnish, or Lacquer	16	7	14	8	10	7	62	23.8
Varnish and Lacquer		6	2		1	1	10	20.2

Source: TPCN

Exhibit 35. Number of Steroid Items Analyzed by DPS Laboratories in Texas: 1998–2003

	1998	1999	2000	2001	2002	2003
Testosterone	15	183	145	150	139	147
Nandrolone	11	61	4	7	0	5
Methandrostenolone	2	20	25	25	36	36
Boldenone	1	16	18	14	12	22
Stanozolol		11	11	15	36	23

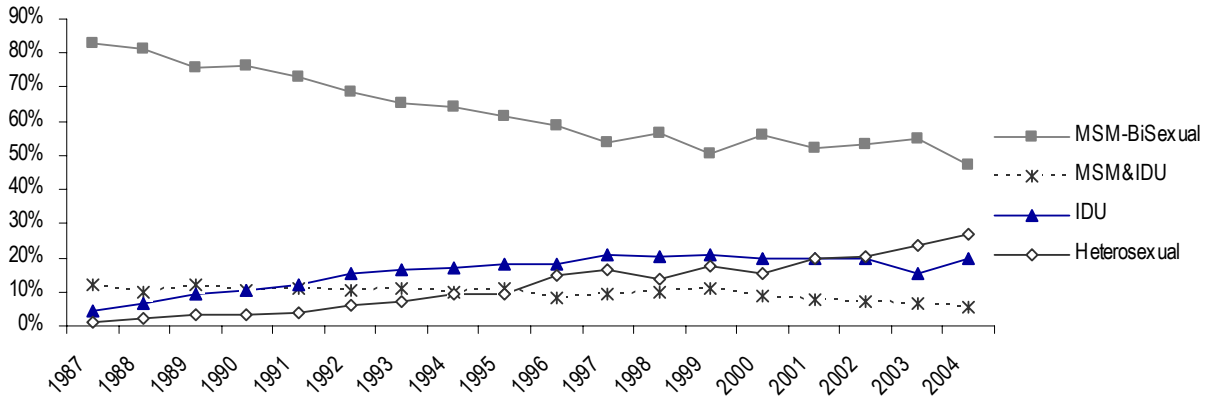
Source: NFLIS

Exhibit 36. Texas HCV Exposures and Their Demographics: 2003

Overall	17.8
By Mode of Exposure (%)	
Injection Drug Exposure	40.7
Medical exposure	13.3
Tattoo or piercing	5.3
Occupational	2.8
Other blood/needle	3.4
Sexual risk	7.6
Shared snorting equipment	3.3
No disclosed risk	5.1
Gender	
Male	19.3
Female	15.3
Race/Ethnicity	
Hispanic	12.1
Non-Hispanic	20.8
White	16.8
Black	20.4
Age Group	
13–19	2.3
20–24	6.3
25–29	11.5
30–39	23.8
40+	35.3

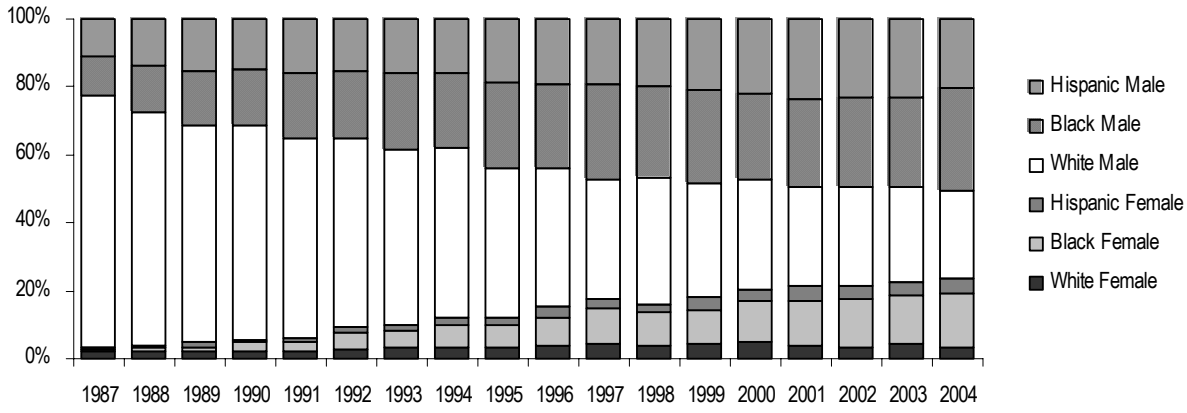
Source: TDH

Exhibit 37. AIDS Cases in Texas by Route of Transmission: 1987–1st Q 2004 (Cases with Risk Not Reported Excluded)



Source: TDH

Exhibit 38. Texas Male and Female AIDS Cases by Race/Ethnicity: 1987–1stQ 2004



Source: TDH

Exhibit 39. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment Who Used Needles: 2003

	Heroin	Cocaine	Stimulants
# Admissions	4,504	1,164	2,325
% of Needle Admits\Drug	56	14	29
Lag-1st Use to Tmt-Yrs.	15	14	13
Average Age	36	34	31
% Male	70	62	50
% Black	5	5	1
% White	38	70	93
% Hispanic	56	23	4
% CJ Involved	35	44	56
% Employed	9	15	17
% Homeless	15	13	10

Source: TCADA

Exhibit 40. Adult and Youth Admissions to TCADA-Funded Programs: 2003

Primary Substance	Total Admissions	% of All Admissions	Average Age	Avg. Age 1st Use	Avg. Lag-1st Use to Admission	% First Treatment	Percent Married	Percent Male	% Use Needles	% History of IV Drug Use
Total	53,069	100.0	32.5	19.0	14.0	42.9	20.5	63.1	19.2	33.5
Heroin	5,061	9.5	35.4	21.3	15.0	24.3	17.4	68.4	89.3	91.9
Non-Rx Methadone	66	0.1	34.9	28.6	7.0	31.8	15.2	42.4	34.8	71.2
Other Opiates	2,227	4.2	35.0	25.6	10.0	34.8	24.5	45.9	17.3	41.9
Alcohol	15,862	29.9	37.2	15.6	23.0	39.4	19.0	69.9	6.1	24.3
Depressants	636	1.2	29.9	22.0	9.0	47.5	24.1	37.4	9.4	30.5
Amphet/Methamph	4,491	8.5	29.8	19.3	11.0	50.1	20.8	47.8	52.3	63.7
Cocaine(powder)	4,145	7.8	30.5	20.6	10.0	46.7	23.1	58.9	26.4	34.4
Marijuana	9,875	18.6	21.3	13.8	8.0	66.2	24.6	73.6	2.0	7.4
Hallucinogens	257	0.5	24.2	18.2	7.0	49.0	839.0	60.3	5.8	10.9
Other Drugs	375	0.7	24.3	18.1	7.0	57.1	22.1	58.7	8.8	17.1
Crack	10,065	19.0	36.6	25.8	11.0	31.0	18.3	53.9	5.5	29.5

Primary Substance	Percent Black	Percent White	Percent Hispanic	Percent Employed	% Employed Over Last 12 Months	% Involved with CJ or Legal System	Average Education (Years)	Percent Homeless	Average Income At Adm	# of Women Pregnant at Admission
Total	20.0	49.8	28.3	26.7	4.1	50.0	11.3	12.5	$6,040	925
Heroin	7.7	36.1	54.8	9.7	2.9	35.6	11.2	13.9	$4,081	78
Non-Rx Methadone	12.1	72.7	15.2	12.1	2.8	33.3	11.7	9.1	$3,870	1
Other Opiates	7.9	84.1	6.6	15.7	3.7	30.4	12.3	7.9	$6,933	34
Alcohol	13.7	59.9	24.2	26.1	4.7	45.5	11.8	14.3	$6,993	90
Depressants	6.6	72.6	18.7	28.3	4.0	48.3	11.4	8.0	$7,058	8
Amphet/Methamph	1.0	90.8	6.4	22.2	4.0	54.4	11.6	8.3	$5,965	116
Cocaine(powder)	9.8	42.3	46.1	28.1	4.5	53.7	11.3	8.2	$7,018	122
Marijuana	22.1	32.6	43.3	53.1	5.2	78.6	10.0	8.5	$6,082	170
Hallucinogens	68.1	16.7	14.0	21.0	3.6	62.3	10.8	13.6	$3,201	9
Other Drugs	9.6	44.0	43.7	40.3	3.4	58.1	10.1	8.8	$4,628	10
Crack	49.4	34.3	14.7	13.6	3.3	36.6	11.7	18.1	$5,050	287

Primary Substance	% on Medication	Percent Emergency Room Visit	% Sickness or Health Problems	Percent Employment Problems	% Family or Marital Problems	Percen Social/Peer Problems	Percent Psych/Emot. Problems	Percent Drug/Alcohol Problems
Total	21.3	33.9	25.2	50.3	49.2	40.2	42.0	67.1
Heroin	22.7	33.0	23.2	67.7	63.3	56.9	39.5	89.1
Non-Rx Methadone	28.8	57.6	47.0	69.7	60.6	57.6	57.6	86.4
Other opiates	34.1	57.3	38.5	51.0	56.9	44.9	59.2	84.1
Alcohol	23.7	39.2	27.7	49.7	47.4	39.9	46.1	68.9
Depressants	35.2	47.8	32.7	52.8	55.8	43.4	52.8	70.9
Amphet/Methamph	19.3	38.5	26.6	53.4	58.4	44.9	54.8	72.6
Cocaine(powder)	18.6	34.2	24.6	47.1	48.2	35.9	40.9	61.7
Marijuana	13.0	14.5	15.6	33.0	29.4	22.4	22.0	38.5
Hallucinogens	17.1	35.4	17.1	51.0	48.6	42.0	36.2	59.5
Other Drugs	25.3	24.5	22.4	49.9	46.4	31.5	42.9	52.8
Crack	23.1	37.1	28.0	59.1	58.8	48.4	46.9	77.5

Source: TCADA

Patterns and Trends of Drug Abuse in Washington, DC

Eric Wish, Ph.D., Erin Artigiani, M.A., and Thomas Gray, M.A.[1]

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 may have stabilized. Although cocaine/crack treatment admissions declined, cocaine remained one of the most serious drugs of abuse in the District. Heroin treatment admissions increased slightly. 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 treatment admissions increased markedly from 2000 to 2002, but they stayed about the same in 2003. DC Pretrial Services Agency test results indicate that PCP-positive urinalysis among arrestees may be starting to decline in 2004.

INTRODUCTION

Area Description

The Nation's Capital is home to approximately 570,898 people residing in 8 wards that remain largely distinguishable by race and economic status (U.S. Bureau of the Census, 2001 update). 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 age 65 and older. More than one-third (39.1 percent) of adults age 25 or older have at least a bachelor's degree (Pach et al. 2002).

Data from the 2000 census reveal several key demographic changes since 1990. The total population decreased by 5.7 percent during the 1990s, from 606,900 in 1990 to 572,059 in 2000. The number of African-Americans decreased by 14.1 percent, the number of Asians 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 areas in and around Washington (Pach et al. 2002). One in five residents were living in poverty in 1999 (U.S. Census Bureau).

Alcohol abuse costs the District approximately $700 million per year, and illicit drug use costs about $500 million per year. Nearly 1 in 10 residents (approximately 60,000) are addicted to illegal drugs and/or alcohol. At least one-half (26,000–42,000) of these individuals have co-occurring substance abuse and mental health disorders. The DC Household Survey indicates that first-time drug use occurs at a younger age in the District than in the rest of the Nation (Citywide Comprehensive Substance Abuse Strategy for the District of Columbia 2003).

The major drug problems in the District continue to be cocaine/crack, marijuana, and heroin. The use and availability of phencyclidine (PCP) increased from 2000 to 2002, but they appear to have leveled off in recent months. The use of club drugs like methylenedioxymethamphetamine (MDMA) also appears to be leveling off.

Information from the Department of Justice's National Drug Intelligence Center (NDIC) suggests that the District has a wide variety of drug transportation options, including an extensive highway system, three major airports, and rail and bus systems. While both NDIC and ethnographic information suggest that traffickers extensively use all of these options, Washington appears to be a secondary drug distribution center. Most drugs intended for distribution in DC are distributed first to larger cities, such as New York and Miami (Pach et al. 2002). The street-level dealing in DC was recently described as less organized and more free-flowing than the

[1]The authors are affiliated with the Center for Substance Abuse Research, College Park, Maryland. Some background material was taken from previous CEWG reports.

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.

- **Emergency department (ED) drug mentions data** were derived for 1995 to 2002 from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for 1995 to 2002.

- **Drug-related death data** were derived from DAWN, OAS, SAMHSA, and annual medical examiner (ME) data for 1997 to 2002.

- **Drug treatment data** for 2000 to 2003 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 2004, available at www.mpdc.dc.gov.

- **Arrestee urinalysis data** were derived from the 2003 Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), in Washington, DC. Males are selected by random procedures, and 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 2003 and January–April 2004.

- **Drug prices and trafficking trends data** were obtained from the NDIC District of Columbia Profile and the Washington-Baltimore High Intensity Drug Trafficking Area (HIDTA) "Washington/Baltimore Threat Assessment" reports released in 2003 and 2004.

- **General information on drug use** was derived from the University of Maryland's Center for Substance Abuse Research, Drug Early Warning System (DEWS) County Snapshots and DEWS Investigates reports, available at 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," available at http/www.planning.D.C.gov/documents/census 2002.shtm.

- **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.

- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** were obtained from The HIV/AIDS Epidemiologic Profile for the District of Columbia, 2004.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine, particularly in the form of crack, remains the most serious drug of abuse in the District, accounting for more ED episodes, admissions to publicly funded drug treatment, and drug-related deaths than any other drug. It is most often sold at open-air markets in the poorer parts of the city and is decreasing in price. The Washington/Baltimore HIDTA reported that powder cocaine sold for $17,500–$35,000 per kilogram and $50–$200 per gram in 2003. Crack sells for slightly more: $80–$100 per gram. Cocaine is smuggled into the District from New York, Miami, Los Angeles, or Philadelphia.

DAWN data show a rate of 71 cocaine ED mentions per 100,000 population in 2002, with no significant change from 2001 to 2002 (exhibit 1). Of the 3,033 cocaine ED mentions in 2002, nearly 62 percent were male, 66 percent were Black, and nearly 25 percent were White. Sixty-four percent were age 35 or older, 22 percent were age 26 to 34, and 13 percent were between the ages of 18 and 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 remaining citing psychic effects (18 percent) and "suicide" (15 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).

Cocaine-involved deaths totaled 58 in 2002, 27 of which were single-drug deaths (exhibit 2). These 58 deaths represent an increase from 2000, when the total was 54, but an even greater increase from 2001, when the total was 42.

In 2003, cocaine accounted for 29 percent of treatment admissions reported to TEDS, with 19 percent being primary crack admissions (exhibit 3). The percent of primary admissions for non-smoked cocaine (referred to as "powder" here) increased from 8.2 percent in 2001 to 12.7 percent in 2002 (from 474 admissions to 717), while those for crack decreased from 25.2 to 20.7 percent (from 1,450 to 1,172 admissions) during this time. In 2003, the number of admissions for crack (912) continued to decrease; admissions for powder cocaine also decreased (466). Treatment admissions in 2003 with powder cocaine and crack cocaine as the primary drugs of abuse were more likely to be male (65.7 and 64.7 percent, respectively) than female (exhibit 4). More than 94 percent of both cocaine admissions groups were Black, and more than one-half were age 36 to 45.

In the ADAM program in 2003, 26.5 percent of the more than 358 male adult arrestees tested positive for cocaine (exhibit 5a). A larger proportion of the small female sample who were screened (n=65) tested cocaine positive (30.9 percent). In 2003, 34.8 percent of adult arrestees in the DC Pretrial Services reports tested positive for cocaine; 3.7 percent of juveniles tested positive for cocaine in 2003 (exhibit 5b). Reports from the DC Pretrial Services Agency indicate that the percentages of adult arrestees testing positive for cocaine remained about the same from 2001 to 2003 (exhibit 6). In the first 4 months of 2004, 36 percent of adult arrestees tested cocaine positive.

Heroin

Heroin is one of the three leading drug problems in the District, along with cocaine and marijuana. While the MPD describes crack as a weekend drug, heroin has a more steady ongoing market. A 2003 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: from 6 a.m. to 9:30 a.m. and from 4 p.m. to 7 p.m. The Washington/Baltimore HIDTA reported that heroin sold for $80,000–$110,000 per kilogram and $80–$115 per gram in 2003.

The number of heroin abusers in the District continues to increase, with estimates of 14,000–-18,000 abusers according to HIDTA. Most heroin is from South America, although Southeast Asian and Southwest African heroin are still distributed by various groups. Purity ranged from 20.8 percent (South American) to 22.7 percent pure (Southeast Asian). Northwest Washington is frequented by White suburban users who purchase high-purity heroin, while eastern Washington is frequented by more well established sellers and long-term addicts. Eastern Washington experiences higher levels of trafficking and associated violence.

DAWN data show no significant changes in the rate of heroin ED mentions from 2001 to 2002 (exhibit 1), with a rate of 38 per 100,000 population in 2002. Of the 1,597 heroin ED mentions in 2002, nearly two-thirds were male, nearly two-thirds were Black, and 28 percent were White. Nearly three-quarters (73 percent) were age 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 mentions represented multidrug episodes.

Of the 20 heroin-involved deaths in 2002, 4 were single-drug deaths (exhibit 2). The number of deaths in 2002 was substantially lower than in 1997 to 2000, but it was an increase from 2001. Deaths had peaked at 53 in 1998.

In 2003, heroin accounted for 41.9 percent of treatment admissions, a steady increase from 2000 (exhibit 3). Of the 2,023 primary heroin admissions in 2003, approximately 72 percent were male and 95.8 percent were Black (exhibit 4). More than one-half were age 41 to 50 (53.1 percent).

ADAM data show that 9.8 percent of adult male arrestees tested positive for opiates in 2003 (exhibit 5a). Slightly more than 10 percent of the female arrestees tested positive for opiates. As with cocaine, reports from the DC Pretrial Services Agency indicate that the percentage of adult arrestees testing positive for opiates has remained about the same since 2001 (exhibit 6). In 2003, 10 percent of adult arrestees tested positive for opiates, and in the first 4 months of 2004, 10.1 percent tested positive. Juvenile arrestees were not tested for opiates during this time.

Other Opiates/Narcotics

While the rate of ED mentions of narcotic analgesics/combinations in 2002 (26 per 100,000 population)

remained stable from 2001 (exhibit 1), the number of mentions increased 63 percent from 2000 to 2002 (from 672 to 1,096). Of the narcotic analgesics ED mentions, oxycodone/combinations accounted for 348 (32 percent), a significant rise from 2000 (exhibit 7). Methadone accounted for 120 (11 percent) of the 2002 mentions, and its presence has been rising steadily since 1998. Hydrocodone/combinations mentions totaled only 44 in 2000, but they totaled 105 mentions in 2002.

Twenty-six deaths involving narcotic analgesics were reported in 2002 (exhibit 2). This is a substantial increase from the 6 in 2001 and from the 15–22 reported in the prior 3 years. The number of deaths involving methadone in the DC metropolitan area increased from 15 in 2001 to 18 in 2002. Two of the 2002 deaths occurred in DC.

Other opiates accounted for 0.3 percent of the treatment admissions in 2003 (exhibit 3). This percentage has remained about the same since 2000.

NDIC reports that the diversion of pharmaceuticals was occurring 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). Criminal justice and public health contacts indicate that OxyContin abuse is low and scattered, but one contact described it in mid-2003 as emergent in the economically depressed areas surrounding the District. Several high profile cases are currently underway in Northern Virginia. 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 sells for less than pills sold in the surrounding suburbs ($0.50 per milligram vs. $1 per milligram).

Marijuana

Marijuana is as widely used in the District as it is in many other jurisdictions. Commercial-grade and high-grade marijuana are available for wide ranging, but relatively stable, prices. Most of the marijuana is transported into the District via 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). The Washington/ Baltimore HIDTA reported that marijuana sold for $700–$1,400 per pound, and Hydro sold for $3,500–$6,000 per pound, in 2003. The use of mail services to transport marijuana appears to be routine and growing.

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 1). 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 were patients age 18–25, 22 percent were patients age 26–34, and 26 percent were age 35 and older. Fifteen percent of the marijuana ED mentions were patients age 12–17. Nearly three-quarters (74 percent) occurred during 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.

Marijuana in combination with other drug(s) was involved in one death in the District in 2001 and one in 2000 (exhibit 2). No marijuana-involved deaths were reported in 2002.

Primary admissions for marijuana use accounted for 7.0 percent of the 2003 treatment admissions, compared with 6.4 percent in 2001 and 8.0 percent in 2000 (exhibit 3). More than three-quarters of the 336 primary marijuana admissions in 2003 were male, and 87.8 percent were Black (exhibit 4). Approximately one-third (32.7 percent) of these admissions were 12–17-year-olds, and more than one-quarter (28.6 percent) were 18–25-year-olds.

In 2003, 37.4 percent of the adult male arrestees in the ADAM program tested marijuana positive, as did 29.1 percent of the female arrestees (exhibit 5a). The DC Pretrial Services Agency does not test adult arrestees for marijuana, but more than one-half of juveniles tested were positive for marijuana in 2002 and 2003 (54.2 and 50.8 percent, respectively) (exhibit 5b).

Phencyclidine

Among the CEWG areas, Washington, DC, is one of the few with a significant PCP problem. 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 2003 Threat Assessment*, PCP is rapidly becoming the drug of choice at raves and nightclubs,

where it is sometimes used in combination with marijuana and/or MDMA (ecstasy).

Interviews with criminal justice and public health experts indicate an increase in the use and availability of PCP in 2002 and 2003. The level of use, however, appears to be leveling off and is still well behind that of crack and marijuana. According to contacts, PCP is sold both on the street and in and around raves. It is often sold in the same areas as crack, 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 contacts 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 "boats" (PCP and marijuana), "woolies" (PCP and crack), and dissolving an ecstasy pill in the liquid. 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. 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.

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, who are 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. PCP is produced by limited sources in an "old time network," and the DEA speculates that its re-emergence may be due to the release of dealers in Los Angeles and the District from prison. "They are re-activating old connections…[and]…going back to what they used to do," according to one DEA source. 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.

Rates of PCP ED mentions in the Washington metropolitan area increased 143 percent between 2001 and 2002, culminating in a rate of 31 mentions per 100,000 population in 2002 (exhibit 1). The District had the highest rate of PCP-related ED visits in the 21 metropolitan areas monitored by DAWN. Of the 1,302 PCP mentions in 2002, 74 percent were male and 82 percent were Black. Nearly one-half (47 percent) were for patients age 18–25, nearly 28 percent were for those age 26–34, and 20 percent were for those age 35 and older. Sixty-nine (5 percent) were for patients age 12–17. Sixty-five percent 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).

There were 27 PCP-related deaths in the metropolitan area in 2002—8 in the District and 14 in Prince George's County, Maryland. The number of deaths in the District increased from three in 2001.

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 2003, PCP accounted for 3.9 percent of treatment admissions, an increase from 2001 (1.8 percent) and 2000 (0.7 percent) (exhibit 3). Of the 189 primary PCP admissions in 2003, nearly two-thirds were male, and nearly all were Black (exhibit 4). Nearly one in five (19 percent) were age 18–20, and more than one-half (57.2 percent) were age 21–30.

The 2003 ADAM data indicate that 11 percent of adult male arrestees tested positive for PCP, as did nearly 14 percent of the females (female data are from quarters 2 and 3 of 2003 only) (exhibit 5a). 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). In 2003, 13.5 percent of adult arrestees screened for illicit drugs tested positive for PCP, which is up dramatically from 2 percent in 1998. PCP use appears to be leveling off in 2004, however. For the first 4 months of 2004, 8.6 percent of adult arrestees tested PCP-positive (a steady decrease from 10.6 percent in

January to 6.6 percent in April). Trend data from 1987 to the present indicate that PCP in 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. The number of juveniles testing positive for PCP decreased from 13.4 percent in 2002 to 11.1 percent in 2003 (exhibit 5b).

Other Drugs

Abuse of stimulants, such as amphetamines and methamphetamine, does not appear to be a major problem in the District. Methamphetamine ED mentions totaled 31 in 2002 (exhibit 7). Mentions were not calculated for amphetamines due to insufficient data. Five deaths involving amphetamines (two) or methamphetamine (three) were reported from 1998 to 2002 (exhibit 2). One methamphetamine-involved death and one amphetamine-involved death were reported in 2002. No female adult arrestees tested positive for methamphetamine, and less than 1 percent of adult male arrestees in the ADAM program tested positive for the drug in 2003. The Washington/Baltimore HIDTA and NDIC report 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 according to contacts. 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. 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.

According to the MPD, 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 (compared with 110 in 2001) and 10 mentions of GHB (exhibit 7). There were no flunitrazepam (Rohypnol) or ketamine ED mentions in 2002. Mentions of lysergic acid diethylamide (LSD) totaled 18 in 2002, and, like GHB, they declined significantly from 2000 to 2002. No deaths involving club drugs were reported in the DAWN mortality data from 1997 to 2002.

Mentions of benzodiazepines are reported in the DAWN ED and mortality reports. In 2002, the rate of benzodiazepine ED mentions in the District was 21 per 100,000 (exhibit 1), with a total of 875 mentions. One death in 2001 was attributed solely to benzodiazepines (exhibit 2), but from 1997 to 2000, mentions of benzodiazepines in the mortality data ranged between 10 and 13. In 2002, four deaths were attributed to multiple drugs, including benzodiazepines.

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. 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. Alcohol-involved deaths more than doubled in 2002 to 37 deaths (exhibit 2). In 2002, primary alcohol admissions accounted for nearly 19 percent of all treatment admissions, with slight declines from 2000 and 2001 (exhibit 3). In the 2003 ADAM data, 12.1 percent of the male arrestees tested positive for alcohol, as did 50 percent of the females.

INFECTIOUS DISEASE RELATED TO DRUG ABUSE

The diagnosis of AIDS cases in the District increased rapidly from 1982 to 1993, when they peaked at 1,342 cases. The number of cases decreased 49 percent from 1993 to 2001, but cases increased by 37.5 percent in 2002. There were 943 diagnosed cases in 2002, the last year for which data are available (exhibit 9). The number of male cases decreased steadily from 1998 to 2001, but such cases increased in 2002. Males accounted for 70 percent of cases diagnosed in 2002. Almost three-quarters of the diagnoses in 2002 occurred among 30–49-year-olds. Almost two-thirds (62 percent) of people in DC diagnosed with AIDS were African-American, and about 21 percent have a history of injection drug use. The rate of AIDS deaths decreased from 47 per 100,000 in 1998 to 25 per 100,000 in 2003.

METHODS FOR COLLECTING INFORMATION ON CURRENT DRUG TRENDS

During the course of the past 9 months, staff from the Center for Substance Abuse Research (CESAR) at the University of Maryland conducted a series of special studies to investigate emerging drug trends and identify effective methodologies for collecting accurate information in an efficient and cost-effective manner. Four reports have been released to date: *What is Be-*

hind the Increase in PCP Use in Prince George's County?, *What is Behind the Rise in Methadone Deaths in Maryland?*, *OxyContin Abuse in Maryland*, and *Warning Signs for Early Marijuana Use and Other Drug Problems Among Maryland's Public School Students*. These reports describe the key findings of the research and provide recommendations for putting the research into action. All of the reports are available on the Drug Early Warning System (DEWS) Web site at <www.dewsonline.org>.

Traditionally, CEWG reports have relied heavily on quantitative measures, like ED mentions and arrestee drug test results. Studies like the assessments of PCP and OxyContin abuse described below illustrate how qualitative information can be used to update and explain trends in quantitative measures like these. The combination of recent interview results with more extensive, but typically, older, quantitative indicator data provides a rare opportunity to detect emerging trends. The results described below show that it is possible to do quick, cost-effective studies and get valuable qualitative information about current trends that can explain and enhance trends in traditional data indicators.

What is Behind the Increase in PCP Use in Prince George's County?

CESAR staff detected an increase in PCP use through core indicators monitored through DEWS. For instance, PCP-related treatment admissions increased 262 percent in Maryland from fiscal year (FY) 1999 to FY 2003. The largest increase was in Prince George's County (630 percent). PCP-related arrests, ED mentions, and arrestee urinalysis results had also increased markedly in Washington, DC, and the Washington metropolitan area.

For this study, CESAR staff interviewed 16 juvenile offenders and 20 adult arrestees in Prince George's County about their knowledge and perceptions of PCP. Subjects were not asked about their own experience using substances. However, PCP users in DC were asked by an experienced ethnographer about their personal experiences as part of a parallel study.

The interviews confirmed the increase in PCP use apparent in the indicators. The subjects reported that "dippers" (a cigarette dipped in liquid) are now a popular way of using PCP. In Prince George's County, dippers are perceived to be widely available and especially popular with youth. However, confusion exists about whether dippers contain liquid PCP, embalming fluid, or both. The subjects also reported that the effects of PCP are unpredictable and individual. PCP heightens a user's natural tendencies and current state of mind. Therefore, violence is not necessarily a result of PCP use.

What is Behind the Rise in Methadone Deaths in Maryland?

From 1998 to 2002, methadone-caused deaths more than tripled (from 24 to 76) in Maryland. CESAR staff worked with the Deputy Medical Examiner to collect demographic information on all 225 decedents (1998 to 2002). In an attempt to understand how the decedents acquired their methadone, additional data on toxicology, substance abuse history, treatment history, and co-morbid conditions were collected from Office of the Chief Medical Examiner (OCME) records for a subset of 64 decedents.

The researchers determined that more information than is contained in OCME records is needed to fully understand the decedent's drug history and how they acquired their methadone. A pilot study to collect information prospectively as a part of the ME's investigation is currently being planned. Most decedents, however, were using more than one drug. Few decedents were known to be participating in methadone treatment programs when they died. Since 2000, more decedents have come from Maryland's suburban and rural counties and have had medical or psychological problems.

OxyContin Abuse in Maryland

CESAR staff received reports of OxyContin abuse from about one-third of Maryland's jurisdictions, but very little information about this trend could be learned from traditional substance abuse indicators. Traditional indicators, like treatment admissions and emergency room visits, do not report information about OxyContin, specifically. OxyContin is often counted with other pain relievers, like Percodan®, Percocet®, and Vicodin®. The goal of this study was to identify people who had become dependent on OxyContin by targeting clients in private treatment programs. Physician recruiters in three counties informed clients with a history of OxyContin abuse about the study, using a script provided by CESAR staff that asked the clients to call the interviewer's cell phone. Few calls were received, so physician recruiters were asked to arrange appointments for the interviewer to meet the subjects at their offices. Identifying privately treated OxyContin abusers was difficult and will require innovative strategies.

Five case studies were completed. All subjects were White and ranged in age from 19 to 58. Three subjects were single, and two were married. One had

children. All had graduated from high school, two were currently attending college, and one had a post secondary degree. Three were employed at least part-time at the time of the study. Their annual household incomes ranged from $30,000 to $119,000. These interviews indicated that OxyContin is being used by illicit drug abusers in Maryland. The subjects had extensive drug histories, and had all been dependent on heroin. They obtained OxyContin from a variety of sources, including physicians, friends, and drug dealers.

Warning Signs for Early Marijuana Use and Other Drug Problems Among Maryland's Public School Students

An estimated 43 percent of Maryland 12th graders have ever used marijuana; 20 percent used the drug before age 15. Using data from the 2002 Maryland Adolescent Survey (MAS) of 6th, 8th, 10th, and 12th grade students, CESAR staff studied the correlates of age of onset of marijuana use and constructed a scale of warning signs that identified students at risk for early marijuana use. This analysis showed that the earlier students began using alcohol, cigarettes, and/or marijuana, the more likely they were to use other illegal drugs and to develop related problems.

An estimated 43 percent of Maryland 12th graders reported using marijuana, and 20 percent used the drug before age 15. Cigarette and marijuana use patterns were similar. Drug knowledge, race/ethnicity, and county of school were all unrelated to early marijuana use. Based on this analysis, the researchers identified the following nine warning signs of early marijuana use:

Behaviors
- Cigarette use before age 15
- Alcohol use before age 15
- 20 or more unexcused absences
- Drug arrest
- Alcohol arrest

Attitudes/Opinions
- Smoking marijuana is safe
- Smoking cigarettes is safe
- My parents think it's okay to smoke marijuana
- My parents think it's okay to smoke cigarettes

The more warning signs exhibited by a student, the greater the likelihood the student had used marijuana before the age of 15 and the more likely the student reported using marijuana in the past month.

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Exhibit 1. 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
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
Benzodiazepines	33	32	29	28	23	21	22	21

SOURCE: DAWN, OAS, SAMHSA

Exhibit 2. Numbers of Drug-Related Deaths in Washington, DC: 1997–2002

Drug	1997	1998	1999	2000	2001	2002	Single-Drug Deaths, 2002
Alcohol-in-Combination	29	44	37	26	17	37	N/A
Cocaine	33	63	64	54	42	58	27
Heroin/Morphine	41	53	41	36	15	20	4
Marijuana	–	–	–	1	1	_	_
Amphetamines	–	–	–	1	–	1	_
Methamphetamine	–	1	–	1	–	1	_
Club Drugs[1]	–	–	–	–	–	_	_
Hallucinogens[2]	1	–	2	1	3	8	2
Inhalants	–	–	–	–	–	_	_
Narcotic Analgesics[3]	6	22	15	20	6	26	6
Other Analgesics	2	3	3	2	1	1	1
Benzodiazepines	13	13	11	10	1	4	_
Antidepressants	4	14	11	4	1	_	_
All Other[3]	7	30	18	10	1	5	1
Total Drug Deaths	**79**	**145**	**121**	**100**	**53**	**91**	**41**
Total Drug Mentions	**136**	**243**	**202**	**166**	**88**	**161**	**41**
Total Deaths Certified	**1,414**	**1,607**	**1,763**	**1,751**	**1,582**	**1,754**	**N/A**

[1]Includes ecstasy (MDMA), ketamine, GHB-GBL, and Rohypnol.
[2]Includes PCP, LSD, and miscellaneous hallucinogens.
[3]Not tabulated above.
SOURCES: DAWN, OAS, SAMHSA

Exhibit 3. Percentages of Treatment Admissions in Washington, DC, by Year: 2000–2003

Drug	2000	2001	2002	2003
Total Admissions (*N*)	(*6,025*)	(*5,755*)	(*5,548*)	(*4,832*)
Powder Cocaine	7.4	8.2	12.7	9.6
Crack Cocaine	27.0	25.2	20.7	18.9
Heroin	35.2	37.9	39.2	41.9
Other Opiates	0.2	0.4	0.3	0.3
Marijuana	8.0	6.4	4.8	7.0
PCP	0.7	1.8	3.6	3.9
Alcohol	21.1	19.3	18.4	18.2
Other Drugs	0.4	0.8	0.4	0.2

SOURCE: TEDS, SAMHSA

Exhibit 4. Demographic Characteristics of Treatment Admissions in Washington, DC, by Selected Drugs and Percent: 2003[1]

Drug	Powder Cocaine	Crack Cocaine	Heroin	Marijuana	PCP
(*N*=)	(466)	(912)	(2,023)	(336)	(189)
Gender					
Male	65.7	64.7	72	75.9	63
Female	34.3	35.3	28	24.1	37
Race/Ethnicity					
Black	94.4	94.8	95.8	87.8	98.4
White	0.9	1.2	1.8	0.9	0
Other[2]	4.8	4.0	2.3	11.3	1.6
Age Group					
17 and younger	0	0.2	0	32.7	2.1
18–25	4.5	2.7	1.7	28.6	55
26–35	15.8	18.3	9.9	20.8	32.8
36–45	54.5	58.2	45.6	12.2	6.3
46–55	21.9	18	38.4	5.1	2.7
56 and older	3.2	2.4	4.4	0.6	1.1

[1]Percentages may not add up to 100 percent due to rounding.
[2]Primarily Hispanic or Latino.
SOURCE: TEDS, SAMHSA

Exhibit 5a. Percentages of Adult Arrestees in Washington, DC, Testing Positive for Four Drugs: 2002–2003

Drug	ADAM Males 2003	ADAM Females 2003	D.C. Pretrial 2002	D.C. Pretrial 2003
(N=)	(*358*)	(*65*)	(*17,952*)	(*17,742*)
Marijuana	37.4	29.1	Not Tested	Not Tested
Cocaine	26.5	30.9	35.2	34.8
PCP	11.0[1]	13.9[1]	14.2	13.5
Opiates	9.8	10.9	10.5	10.0

[1]Male data are for the first three quarters of 2003; female data are for quarters two and three.

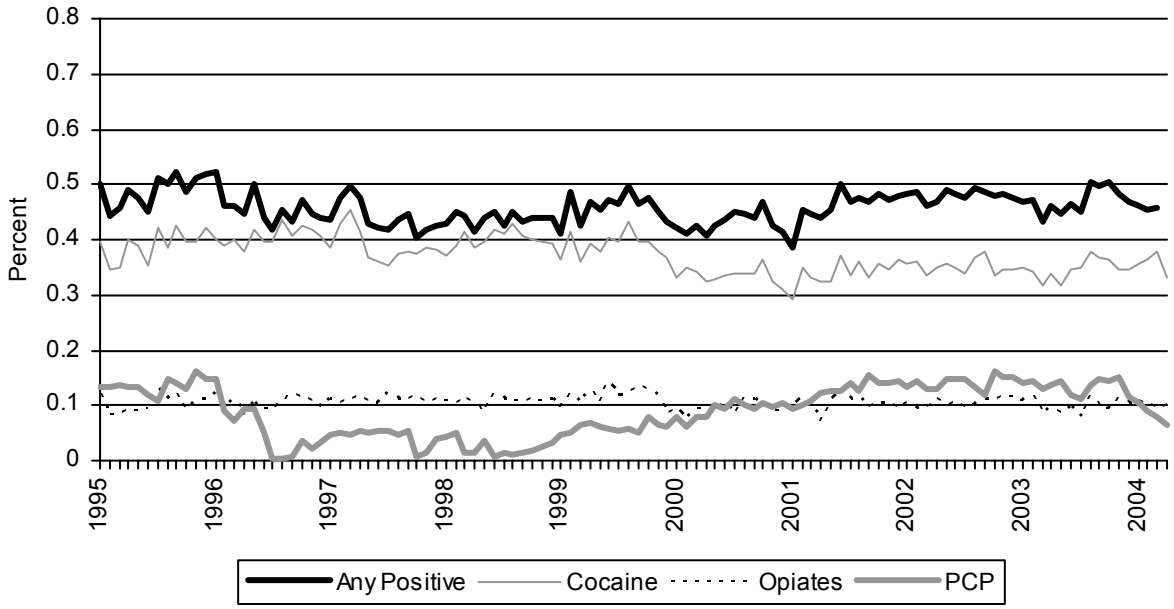
SOURCE: ADAM, NIJ; District of Columbia Pretrial Services Agency

Exhibit 5b. Percentages of Juvenile Arrestees in Washington, DC, Testing Positive for Four Drugs: 2002–2003

Drug	D.C. Pretrial 2002	D.C. Pretrial 2003
(N=)	(*1,896*)	(*1,899*)
Marijuana	54.2	50.8
Cocaine	5.5	3.7
PCP	13.4	11.1
Opiates	Not Tested	Not Tested

SOURCE: District of Columbia Pretrial Services Agency

Exhibit 6. Percentages of Washington, DC, Adult Arrestees Testing Positive for Any Drug, Cocaine, PCP, and Opiates: Monthly 1995–2004[1]



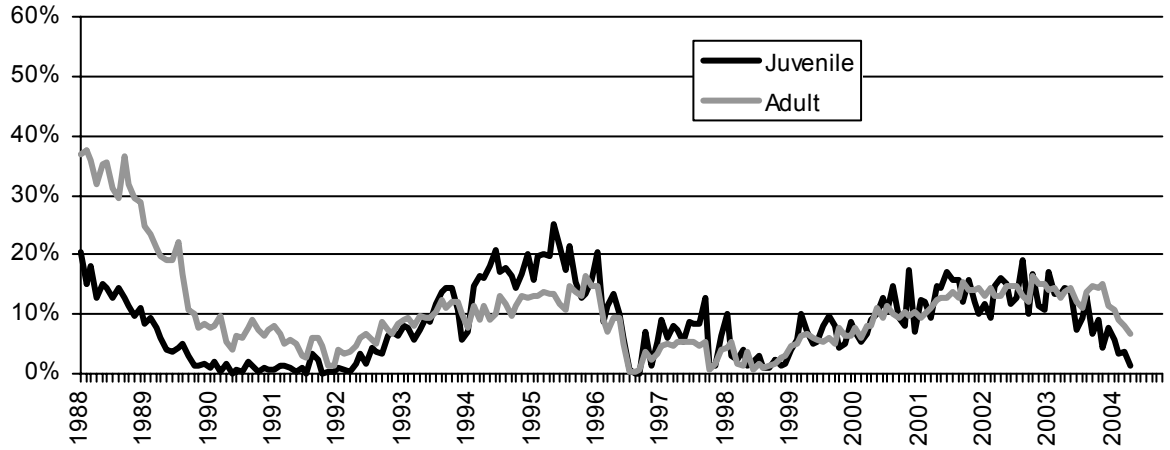
[1]Data for 2004 are through April.
SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency.

Exhibit 7. Numbers of ED Mentions for Selected Drugs in Washington, DC: 2000–2002

Drug	Number			Percent Change	
	2000	2001	2002	2000 to 2001	2001 to 2002
Oxycodone/Combinations	136	350	348	155.9	
Hydrocodone/Combinations	44	…[1]	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		

[1]Dots (…) indicate that an estimate with a relative standard error greater than 50 percent has been suppressed.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 8. Percentages of Washington, DC, Adult and Juvenile Arrestees Testing Positive for PCP: Monthly 1988–2004[1]



[1]Data for 2004 are through April.
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: 1981–2002

Characteristic	1998		1999		2000		2001		2002		Cumulative 1981–2002	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
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	97	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	353	35	268	38	200	29	195	28	271	28	7,204	48
IDU/MSM	22	2	14	2	14	2	20	3	16	2	673	4
IDU	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	

SOURCE: District of Columbia Department of Health, Division of Epidemiology, Administration for HIV/AIDS

Panel on

Prescription Drug Abuse

Emerging/Current Trend—Panel on Prescription Drug Abuse: Overview and Summary of Findings

Wilson M. Compton, M.D., M.P.E

Dr. Compton, Director, Division of Epidemiology, Services and Prevention Research, NIDA, noted that in planning the Panel on Prescription Drug Abuse, NIDA recognized the critical need to expand knowledge about the abuse of prescription drugs at the local, State, regional, and national levels. The CEWG model emphasizes the use of multiple sources of data and the interpretation of the data within and across communities. Data sources utilized by the CEWG include Federally-supported monitoring systems with varying potential for regional, State, and local sociodemographic analyses; State and local data; relevant studies generated by independent organizations; and NIDA-supported research studies. The CEWG meeting provides a unique platform to bring together various perspectives on issues related to prescription drug abuse. Through this venue, CEWG representatives and the Panel on Prescription Drug Abuse have enhanced our understanding of prescriptt ion drug abuse. They have also provided insight into how research resources can be used to further understand prescription drug abuse and more effectively address problems associated with abuse of these drugs.

The Panel on Prescription Drug Abuse was designed to accomplish the following objectives:

- To better characterize the nature and extent of abuse of prescription drugs across national, regional, State, and local levels, with an emphasis on youth and young adults

- To identify key issues and research questions

Participants presenting information from large data sets—the National Survey on Drug Use and Health (NSDUH), the Monitoring the Future (MTF) survey, the Drug Abuse Warning Network (DAWN), the Treatment Episode Data Set (TEDS), the National Forensic Laboratory Information System (NFLIS), System to Retrieve Information from Drug Evidence (STRIDE), the Automation of Reports and Controlled Orders System (ARCOS), and Toxic Exposure Surveillance System (TESS)—were asked, if possible, to present geographic and demographic analyses of the data, and to provide data on three major classes of drugs (narcotic analgesics/opioids, CNS depressants, and stimulants) and on generic drugs within drug classes (e.g., hydrocodone, oxycodone, alprazolam, and methylphenidate).

A number of key issues and findings emerge from the data presented by the panel, including the following:

- Prescription drug abuse has increased across the United States in recent years. There has been an increase in the retail distribution and the theft and loss of many of these drugs, an increase in their nonmedical use among Americans age 12 and older, and increases in patients treated for nonmedical use of prescription drugs in hospital emergency departments (EDs) and substance abuse treatment facilities.

- There are notable differences by geographic area and population groups in the types of prescription drugs abused and in the patterns of abuse.

- Abuse of prescription drugs among teenagers and young adults is particularly alarming. For example, Vicodin is the second most frequently abused drug among high school seniors; alprazolam-related ED visits are as likely among teenagers as older age groups; treatment admissions for primary abuse of narcotic painkillers among males in their twenties has increased substantially; benzodiazepines were the prescription medications most commonly reported to TESS in teenage abuse/misuse cases in 2000–2003; and the incidence rate of new stimulant users increased fourfold from 1991 to 2000 among the 12–17 and 18–25 age groups.

- Hydrocodone and oxycodone abuse indicators suggest that they are the most widely abused narcotic analgesics, and alprazolam appears to be the most widely abused benzodiazepine in many areas. However, methadone abuse indicators are relatively high in some areas, and other prescription drugs, such as clonazepam and fentanyl, have been identified as emerging abused drugs.

- Prescription drugs are often used nonmedically in sequence or in combination with other prescription drugs, illegal drugs, and alcohol. Combinations reported include potentially life-threatening mixtures of CNS depressants such as benzodiazepines and alcohol.

- Users underestimate risks associated with nonmedical use and the mixing of prescription drugs.

- A high proportion of nonmedical users of prescription drugs have used illicit drugs.

In conducting studies of prescription drug abuse, researchers need to be aware of methodological problems and issues. For example, there are so many different prescription drugs available, and different street names for these drugs, that it is difficult to distinguish the specific drugs used. Therefore, in developing and testing questionnaires to be used in studies, researchers need to pilot test the nomenclature (names of drugs). Many respondents may not know the "generic" designation of a class of drugs, only the specific name of a prescribed drug or, perhaps, only the street name. There is evidence also of use of multiple prescription drugs, often in combination with illicit drugs or alcohol. Development of methods to characterize the use, in combination or in sequence, of different substances will enhance understanding of the interactions and effects of different "polydrug" patterns. Geographic Information Systems techniques offer great potential for illuminating variations in patterns of abuse and consequences and changes over time. Several panelists made effective use of geocoded maps to vividly display data by drug and geographic areas and for different periods of time.

In a presentation on the 2002 NSDUH, it was shown that an estimated 47 million Americans age 12 and older had used prescription drugs nonmedically during their lifetime, nearly 15 million had done so in the past year, and more than 6 million had used in the past month. Dr. James Colliver noted that lifetime use of prescription drugs was highest for pain relievers (e.g., hydrocodone, oxycodone, methadone, and codeine products). Use of more than one drug was most common among 12–25-year-old users of pain relievers.

Nonmedical use of Vicodin, a hydrocodone product, ranked second (after marijuana) among drugs used by 12th graders, according to the 2003 Monitoring the Future survey. Approximately 10.5 percent of seniors had used Vicodin in the past year, and 4.5 percent had used OxyContin. According to Dr. Colliver, students' nonmedical use of prescription drugs remained at relatively high levels. Over the survey years, new patterns of prescription drug abuse have emerged. Students who had used Vicodin or OxyContin were likely to have used other drugs as well.

Rates of DAWN hospital emergency department drug abuse-related visits involving hydrocodone, oxycodone, and methadone increased significantly from 1995 to 2002. Fentanyl-related ED visits also increased significantly during this period, although the number of visits remained relatively small. Rates for narcotic analgesics were most likely to increase among young adults (age 20–25). Dr. Elizabeth Crane noted that ED visits involving alprazolam and clonazepam also increased. Rates for alprazolam-involved ED visits were equivalent across age groups, indicating that teenagers were as likely to enter the ED for this drug as older groups. Multiple drug use was common in the narcotic analgesics abuse cases.

The TEDS data show that increasing numbers of drug abusers entering treatment in recent years had abused narcotic painkillers (excluding nonprescribed methadone). Of the 84,000 admissions in 2002 who reported using narcotic painkillers, more than one-half identified these drugs as their primary drug of abuse. Using geocoded maps, Dr. Leigh Henderson presented rates (per 100,00 population) of narcotic painkiller admissions by State and by year (1992, 1997, and 2002). Eleven States provided multiyear admissions data for specific types of narcotic painkillers by treatment clients. From 1997–2002, admissions increased 129 percent for all narcotic painkillers, but admissions involving oxycodone products increased 1,267 percent over the 6-year period.

From 2000 to 2003, benzodiazepines were the most common group of prescription medications reported in teenage abuse/misuse cases to poison control centers across the Nation. Dr. William Watson mentioned that nearly one-half (49 percent) of the teenage benzodiazepine cases involved more than one substance.

In 2001–2003, ARCOS data showed that retail distribution increased for hydrocodone, oxycodone, methadone, morphine, and codeine, while theft and loss of oxycodone and hydrocodone peaked in 2002. Hydrocodone and oxycodone items were much more likely than items for other types of narcotic analgesics to be analyzed/identified by forensic laboratories (NFLIS, STRIDE); these two drugs were also more likely to be seized by Drug Enforcement Administration (DEA) agents. Liqun Wong pointed to geographic differences in the NFLIS data. For example, a higher proportion of the narcotic analgesic items analyzed in Atlanta, Dallas, Denver, and San Diego were hydrocodone, while oxycodone items predominated in Boston, Miami, and Philadelphia.

An exploratory study conducted in Colorado showed that clonazepam abuse was a problem in different parts of the State. Based on secondary analysis of State treatment data and information from clinicians who served as key informants, Bruce Mendelson, CEWG member, found that individuals entering State drug treatment facilities in 2002 and 2003 were more likely to report using clonazepam than any other benzodiazepine. The clinician key informants indicated that some reasons given for using clonazepam included using it to "come down" from other drugs or to boost the effects of other drugs. Other substances most often used with clonazepam included alcohol and/or other benzodiazepines, marijuana, and cocaine.

In a 2004 pilot study of students at a mid-Atlantic university (mostly freshman and sophomores), 15.5 percent had used pain relievers nonmedically, and 13.4 percent had used prescription stimulants nonmedically. The vast majority of the prescription drug abusers had also used other drugs (e.g., 92 percent had used marijuana and 54 percent had used hallucinogens). According to Dr. Amelia Arria, some of the students mixed drugs without knowing the differences between specific types of prescription medications and their potential dangers.

In a study of ecstasy abusers in Miami, which utilized quantitative and qualitative methods, 87 percent of the abusers reported using prescription drugs nonmedically more than five times during their lifetime. Dr. Steven Kurtz identified many of the reasons prescription drugs were so popular in the club drug scene, including the fact that they were perceived as easily accessible; cheaper, more pure, and less harmful than other drugs; and less likely to lead to arrest than use of illicit drugs. The prescription drugs were used in many ways, including as a substitute for or in combination with other substances. Thus, personal expectations may play a role in prescription drug abuse.

Prescription Drug Abuse in the American Population

James Colliver, Ph.D.

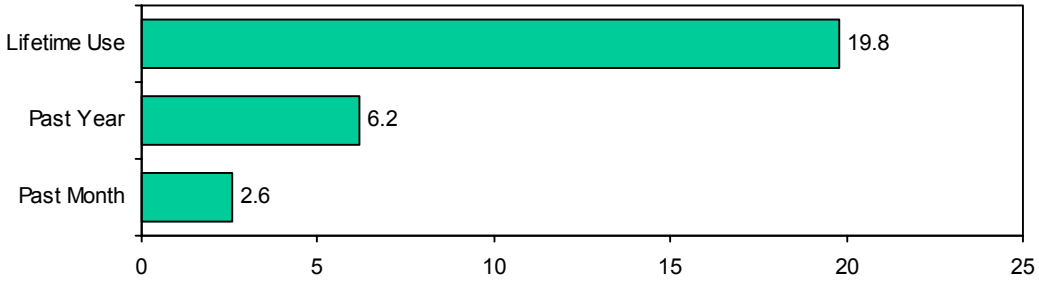
Major findings from the 2002 National Survey on Drug Use and Health on prescription drug abuse in the noninstitutionalized population are as follows:

- **An estimated 46.6 million Americans age 12 and older had used a prescription-type psychotherapeutic drug nonmedically at least once in their lifetime, nearly 15 million had done so in the past year, and more than 6 million had used in the past month.**
- **The percentage of lifetime use was highest for pain relievers (12.6 percent), followed by stimulants (9.0 percent), tranquilizers (8.2 percent), and sedatives (4.2 percent).**
- **Among pain relievers, Darvocet, Darvon, or Tylenol with Codeine were the drugs most frequently abused (18.9 million, lifetime use), followed by Vicodin, Lortab, or Lorcet (13.1 million, lifetime use). Nearly 2 million people used OxyContin nonmedically at some time in their life.**
- **Nonmedical use of a psychotherapeutic drug was highest among persons younger than 26, especially those age 18–25.**
- **Young abusers of prescription pain relievers were more likely than their nonusing counterparts to have used other drugs, such as marijuana, cocaine, inhalants, ecstasy, other hallucinogens, and heroin.**
- **The incidence rate for nonmedical use of prescription pain relievers, tranquilizers, and stimulants increased sharply over the last decade, and, in 2002, more than 2 million abusers of prescription-type psychotherapeutic drugs met diagnostic criteria for abuse or dependence in the past year.**

Dr. Colliver, NIDA, reported these and other findings from the 2002 NSDUH, which is conducted by Research Triangle Institute and funded by OAS, SAMHSA.

Estimates of the percentages of Americans age 12 and older who reported using prescription-type drugs nonmedically in the 2002 survey are shown in exhibit A.

Exhibit A. Estimated Percentages of Lifetime, Past-Year, and Past-Month Nonmedical Use of Prescription Drugs Among Americans Age 12 and Older: 2002

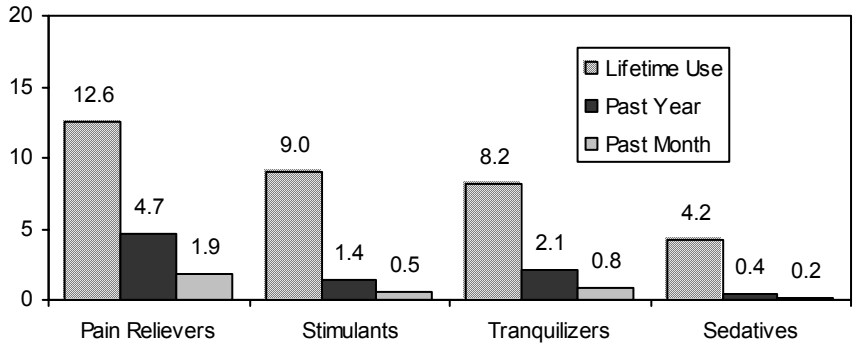


SOURCE: NSDUH, OAS, SAMHSA

Overall, the data show that use of these psychotherapeutic drugs varies by type of drug and demographic group.

As shown in exhibit B, pain relievers are the most frequently used prescription-type drug, followed by stimulants, tranquilizers, and sedatives.

Exhibit B. Percentages of the Population Age 12 and Older Reporting Nonmedical Use of Prescription-Type Psychotherapeutic Drugs, by Type of Drug: 2002

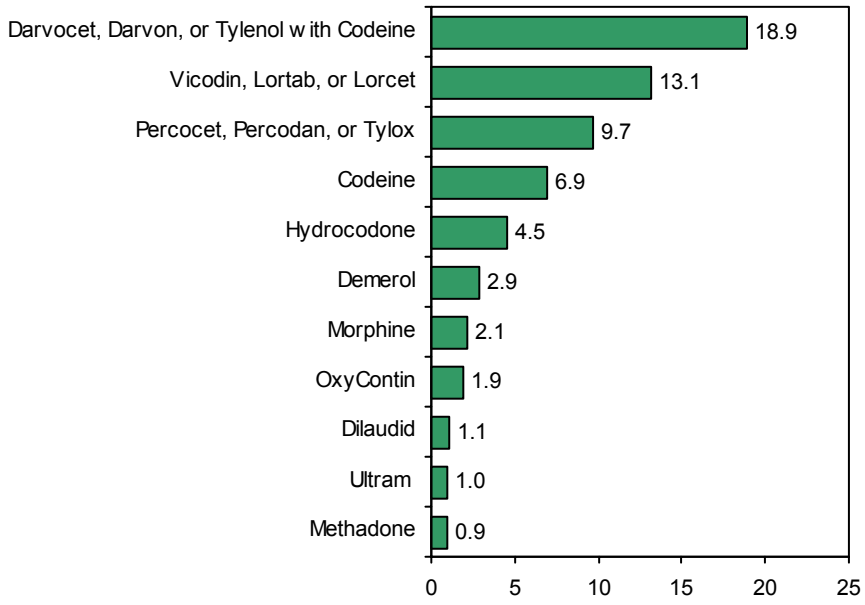


SOURCE: NSDUH, OAS, SAMHSA

Pain Relievers. An estimated 29.6 million Americans age 12 and older (12.6 percent) had ever used pain relievers nonmedically in 2002. An estimated 1.5 million of the nonmedical users met *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) criteria of abuse or dependence on pain relievers in the past year.

As shown in exhibit C, Darvocet, Darvon, or Tylenol with Codeine were "ever used" nonmedically by nearly 19 million persons in 2002. In 2002, 13.1 million persons had used Vicodin, Lortab, or Lorcet in their lifetime, and 9.7 million had used Percocet, Percodan, or Tylox. Also, 1.9 million had used OxyContin, and 1 million had used Ultram (tramadol).

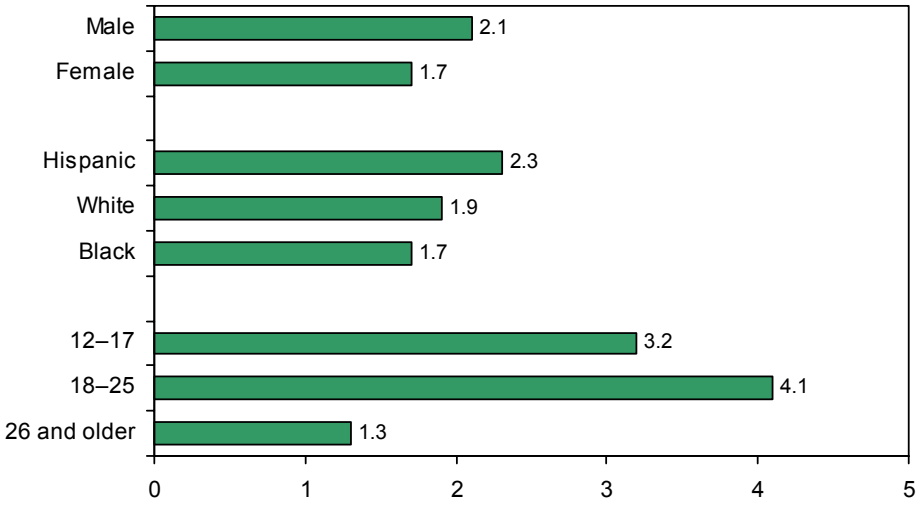
Exhibit C. Estimated Numbers (in Millions) of Lifetime Nonmedical Use of Selected Pain Relievers Among Persons Age 12 or Older: 2002



SOURCE: NSDUH, OAS, SAMHSA

Past-month nonmedical use of pain relievers was higher among persons age 12–25 than among those age 26 and older (*see exhibit D*). Around 2.1 percent of males, compared with 1.7 percent of females, were currently abusing prescription pain relievers. The proportions of use by race/ethnicity were 2.3 percent for Hispanics, 1.9 percent for Whites, and 1.7 percent for Blacks.

Exhibit D. Demographic Differences in Past-Month Nonmedical Use of Pain Relievers, by Percentage of Each Group: 2002

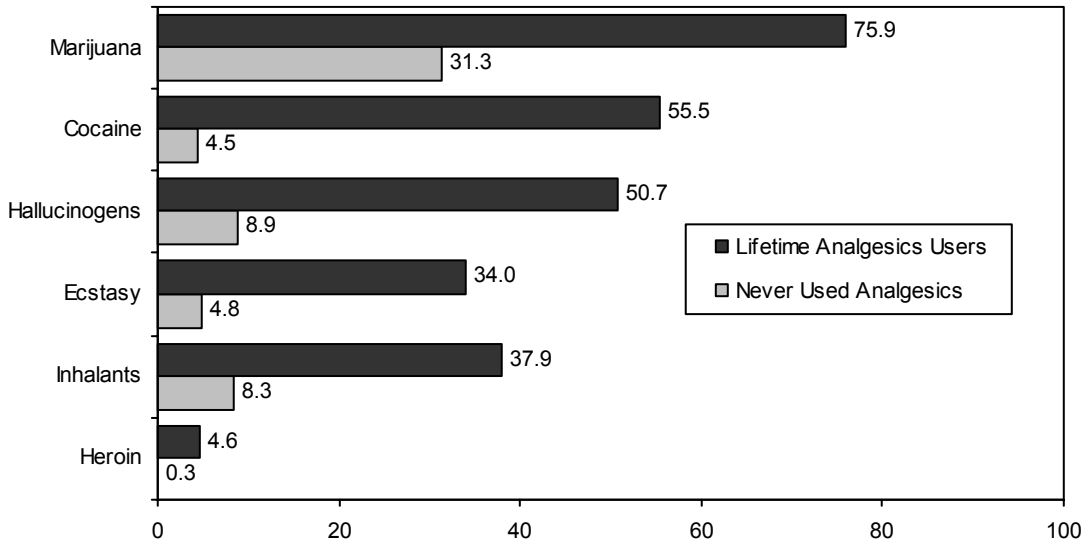


SOURCE: NSDUH, OAS, SAMHSA – SAMHDA Online Analysis

The incidence rate for nonmedical use of pain relievers remained relatively low and stable for those age 12–17 and 18–25 from 1969 to the early 1990s. Around 1994, the rates rose to approximately 12–13 per 1,000 persons for these age groups. Rates rose sharply thereafter to nearly 50 per 1,000 among 12–17-year-olds and to more than 30 for the 18–25 age group in 2001.

Adolescents and young adults who have used pain relievers nonmedically generally have tried other drugs as well, as shown in exhibit E. Lifetime use of marijuana was 2.4 times more common among 12–25-year-olds who had abused pain relievers than among persons in that age range who had not. Use of cocaine was 12.3 times more common, and similar patterns were found for hallucinogens (5.7 times more common among those who had used pain relievers nonmedically), ecstasy (7.1 times more common), inhalants (4.6 times more common), and heroin (15.3 times more common).

Exhibit E. Lifetime Use of Other Drugs by Persons Age 12–25 Who Had and Had Not Used Pain Relievers Nonmedically, by Percent: 2002



SOURCE: NSDUH, OAS, SAMHSA

Stimulants. An estimated 21 million Americans age 12 and older in 2002 had used prescription-type stimulants nonmedically during their lifetime, and 3.2 million reported abuse of these drugs in the past year. More than 400,000 met DSM-IV criteria for abuse of or dependence on stimulants in the past year.

There was little difference in use between males (0.6 percent) and females (0.5 percent) in past-month nonmedical use of stimulants. Past-month use was more likely to be reported by Whites (0.6 percent) than Hispanics (0.3 percent) or Blacks (0.1 percent). Such use was considerably more prevalent among those age 18–25 (1.3 percent) than those age 12–17 (0.7 percent) and those 26 and older (0.4 percent).

The incidence rates for nonmedical use of stimulants in both the 12–17 and 18–25 age groups increased over the recent decade. In 1991, for every 1,000 nonusers in these age groups, there were 4.5 new users age 12–17 and 4.1 new users age 18–25. In 2000, the respective rates for these two age groups were 17.6 and 13.2—a fourfold increase.

Tranquilizers. Of the estimated 19.3 million Americans age 12 and older in 2002 who reported ever using tranquilizers nonmedically, 4.8 million had used them in the past year, and more than 500,000 met DSM-IV criteria for abuse or dependence in the past year.

There was little difference in past-month tranquilizer use by gender (0.8 and 0.7 percent of males and females, respectively). Among Whites, 0.9 percent had used tranquilizers nonmedically in the past month, compared with 0.4 percent of Hispanics and 0.2 percent of Blacks. The most striking difference in past-month use was by age group: 1.5 percent of 18–25-year-olds, 0.7 percent of 12–17-year-olds, and 0.6 percent of those age 26 and older.

The incidence rate for nonmedical tranquilizer use in 1990 was 3.9 (new users per 1,000 persons at risk) for 12–17-year-olds and 5.5 for 18–25-year-olds. Over the ensuing decade, the numbers of new users of these drugs in these two age groups increased dramatically to 16.5 and 19.8, respectively—a more than threefold increase.

Student Use of Prescription Drugs: Monitoring the Future Survey

James Colliver, Ph.D

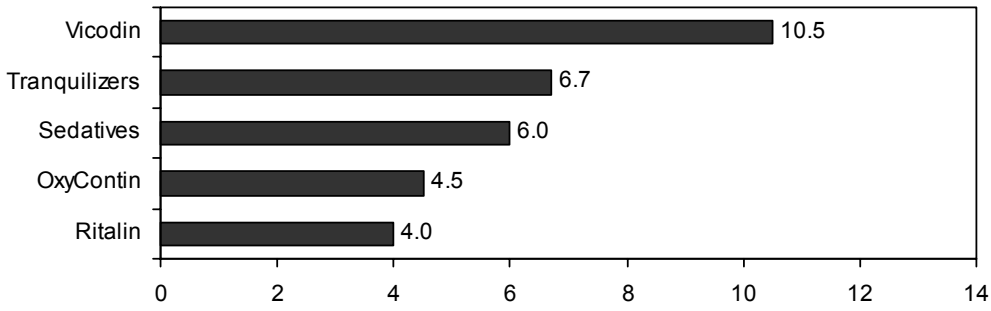
Major findings from the 2003 MTF project include the following:

- **Vicodin ranked second (after marijuana) in past-year use among 12th grade students nationwide. Past-year nonmedical use of Vicodin was reported by 10.5 percent of seniors, 7.2 percent of 10th graders, and 2.8 percent of 8th grade students.**
- **Among seniors, nonmedical use of Vicodin was highest among males and Whites, students in the West Region, and students outside large metropolitan statistical areas (MSAs).**
- **Sedatives (barbiturates) were used nonmedically by 6 percent of seniors during the past year. Nonmedical use of sedatives by seniors increased from 1992 to 2002 and may have reached a plateau; however, higher levels were reported from 1975 to 1981.**
- **Nonmedical past-year use of OxyContin was reported by 4.5 percent of high school seniors in 2003, with use being highest among males, Whites, and students outside large MSAs.**
- **Ritalin was used nonmedically by 4 percent of seniors in the past year, the same as in 2002.**

These and other findings are from the 2003 Monitoring the Future survey conducted by the Institute for Social Research, University of Michigan, through NIDA grant R01DA01Y11. The findings presented cover nonmedical use of Vicodin (a hydrocodone product), tranquilizers, sedatives (barbiturates), OxyContin, and the stimulant Ritalin (methylphenidate).

Past-Year Use. As shown in exhibit A, Vicodin was the prescription drug most likely to be used nonmedically by 12th graders in the 2003 school year, followed by tranquilizers, sedatives (barbiturates), OxyContin, and Ritalin.

Exhibit A. Percentages of 12th Graders Nationally Who Used 5 Prescription-Type Drugs Nonmedically in the Past Year: 2003

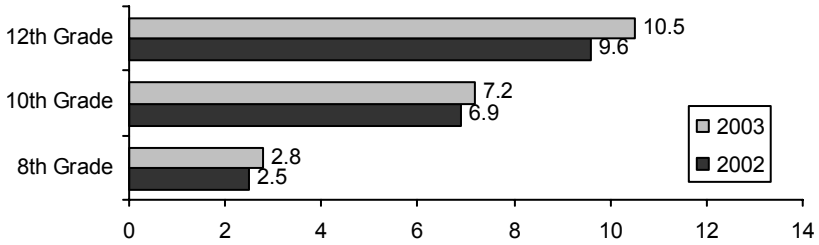


SOURCE: MTF (University of Michigan and NIDA)

Vicodin. Of note is the fact that Vicodin ranked second, after marijuana, in past-year use. However, Vicodin use remained statistically unchanged from the previous school year, when 9.6 percent of seniors reported using the drug nonmedically.

Comparing grades, past-year nonmedical use of Vicodin in 2003 was higher among seniors, followed by those in grade 10, as shown in exhibit B.

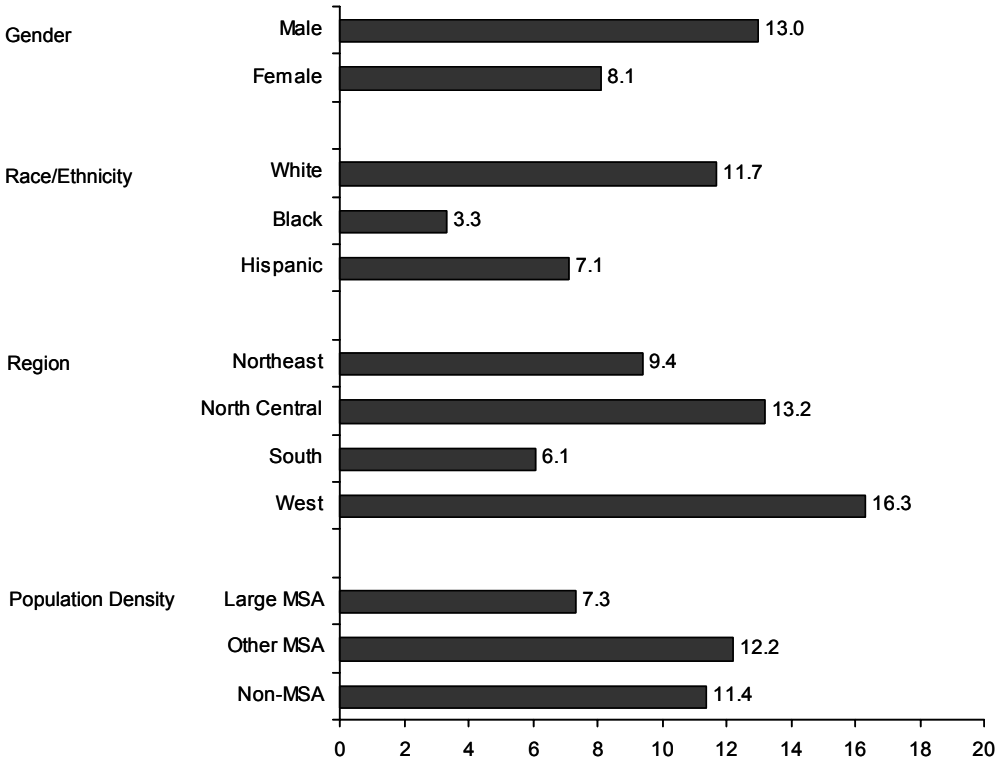
Exhibit B. Percentages of Students Reporting Nonmedical Use of Vicodin in the Past Year: 2002–2003



SOURCE: MTF (University of Michigan and NIDA)

Seniors' nonmedical use of Vicodin in the past year was higher among males, Whites, those in the West Region of the United States, and those outside large metropolitan areas (*see exhibit C).*

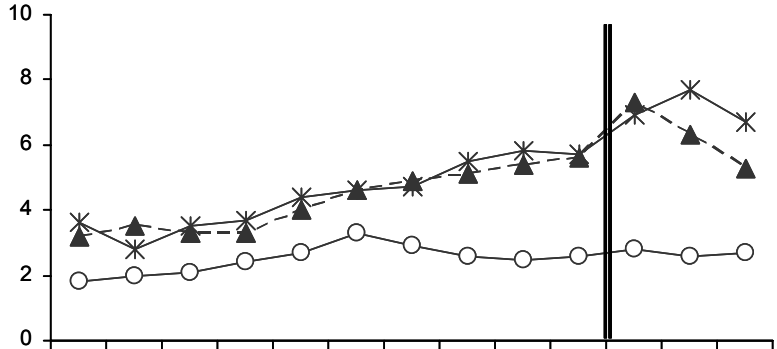
Exhibit C. Percentages of 12th Graders Reporting Past-Year Vicodin Use by Selected Demographic Characteristics and Population Density: 2003



SOURCE: MTF (University of Michigan and NIDA)

Tranquilizers. Nonmedical use of tranquilizers among 10th and 12th grade students increased from 1991 to 2000, when a change in the instrument interrupted the trends. More recently, past-year tranquilizer use declined from 7.3 percent in 2001 to 5.3 percent in 2003 among 10th graders and from 7.7 percent in 2002 to 6.7 percent in 2003 among 12th graders (*see exhibit D*).

Exhibit D. Percentages of Students Reporting Nonmedical Use of Tranquilizers in the Past Year, by Grade and Year: 1991–2003[1]

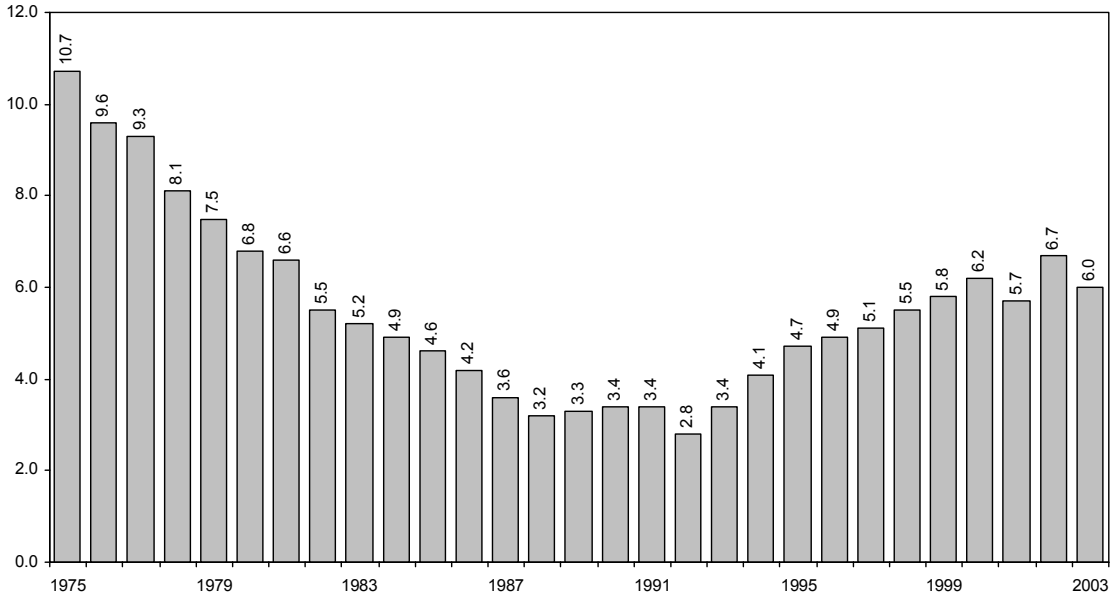


	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03
8th Grade	1.8	2.0	2.1	2.4	2.7	3.3	2.9	2.6	2.5	2.6	2.8	2.6	2.7
10th Grade	3.2	3.5	3.3	3.3	4.0	4.6	4.9	5.1	5.4	5.6	7.3	6.3	5.3
12th Grade	3.6	2.8	3.5	3.7	4.4	4.6	4.7	5.5	5.8	5.7	6.9	7.7	6.7

[1]Xanax replaced Miltown in tranquilizer items beginning in 2001.
SOURCE: MTF (University of Michigan and NIDA)

Sedatives. Among seniors, the only grade level asked about barbiturate/sedative use, past-year use of these drugs declined gradually from 10.7 percent in 1975 to 2.8 percent in 1992, then rose to a recent high of 6.7 percent in 2002 and ended at 6.0 percent in 2003, statistically unchanged from the previous year (*see exhibit E*).

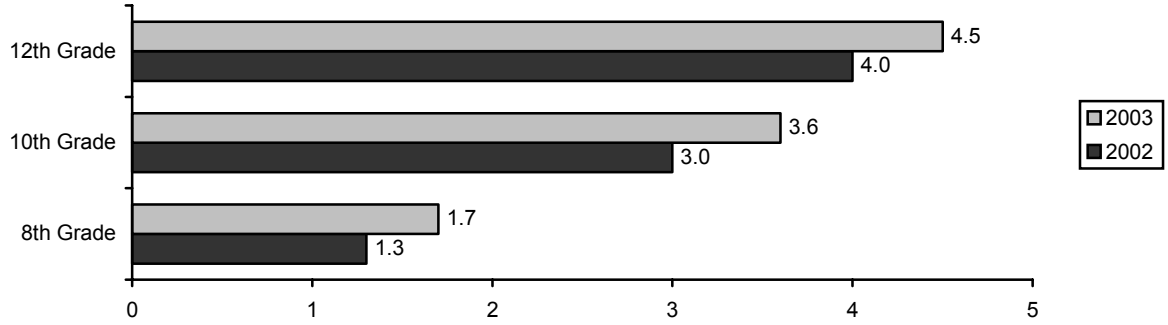
Exhibit E. Percentages of Seniors Reporting Past-Year Nonmedical Use of Sedatives, by Year: 1975–2003



SOURCE: MTF (University of Michigan and NIDA)

OxyContin. Nonmedical use of OxyContin remained statistically unchanged from 2002 to 2003 for students in all three grades, as shown in exhibit F.

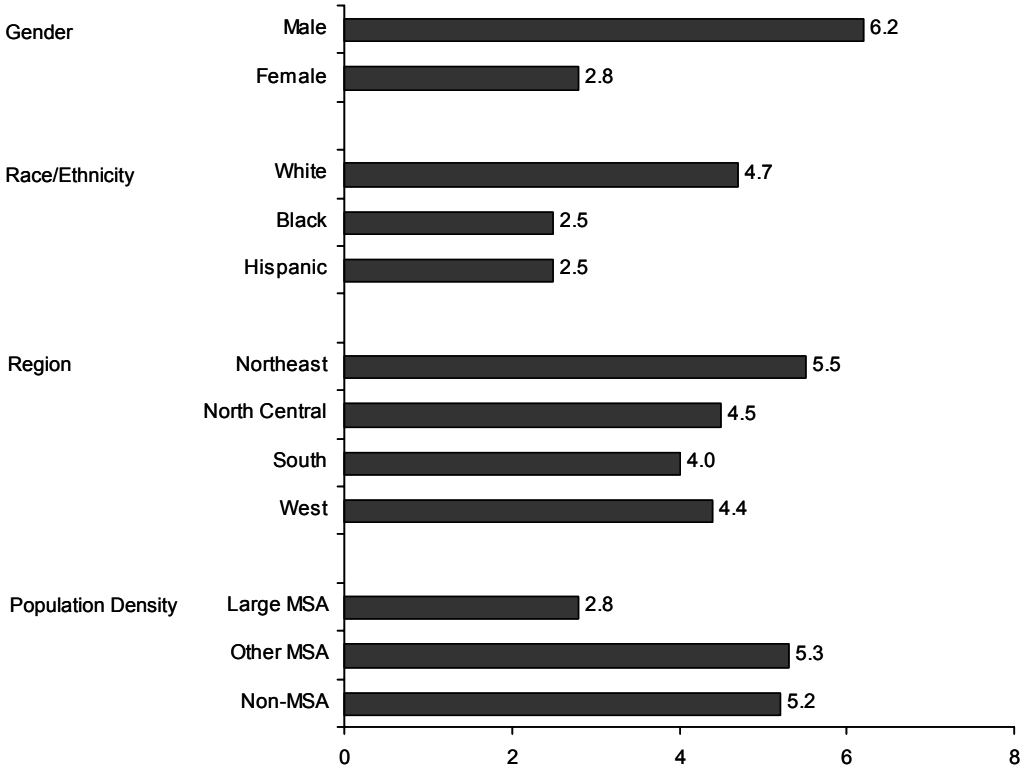
Exhibit F. Percentages of Students Reporting Past-Year Nonmedical Use of OxyContin by Grade and Year: 2002–2003



SOURCE: MTF (University of Michigan and NIDA)

Nonmedical use of OxyContin in the past year was higher among males and Whites, as shown in exhibit G. Differences by region were not great. Areas outside large metropolitan areas tended to have higher percentages of student use than areas inside large metropolitan areas.

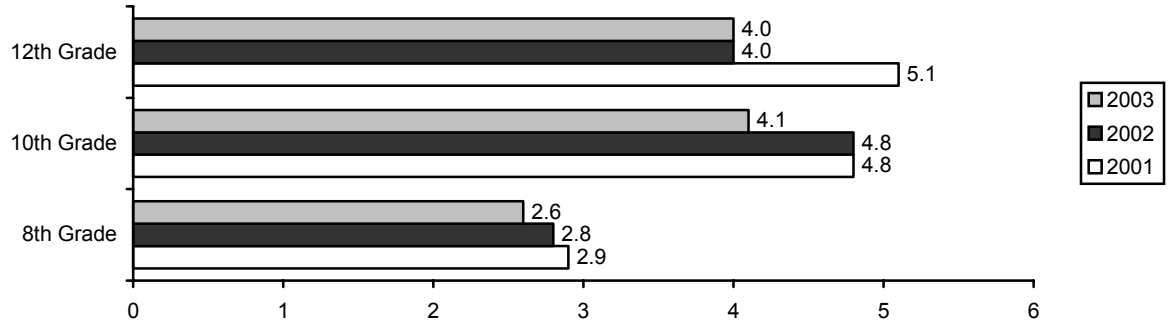
Exhibit G. Percentages of 12th Graders Reporting Past-Year Use of OxyContin by Selected Demographic Characteristics and Population Density: 2003



SOURCE: MTF (University of Michigan and NIDA)

Ritalin. Nonmedical use of Ritalin in the past year was reported by 4.0 percent of 10th and 12th graders and 2.6 percent of 8th graders in 2003, as shown in exhibit H. There were no statistically significant changes in the period from 2001 to 2003.

Exhibit H. Percentages of Students Reporting Nonmedical Past-Year Use of Ritalin: 2001–2003



SOURCE: MTF (University of Michigan and NIDA)

Prescription Drugs and Teens and Young Adults in Drug Abuse-Related Emergency Department Visits: 1995–2002

Elizabeth Crane, Ph.D., M.P.H.

Trend data from the Drug Abuse Warning Network on drug abuse-related hospital emergency department visits involving nonmedical use of narcotic analgesics and benzodiazepines show the following:

- **ED visits involving nonmedical use of hydrocodone, oxycodone, methadone, and fentanyl increased between 1995 and 2002. ED visits involving hydrocodone exceeded 25,000, and those for oxycodone exceeded 20,000 in 2002.**
- **Rates of ED visits involving narcotic analgesics were most likely to increase among patients age 20–25.**
- **Rates for methadone visits increased from 1995 to 2002 for groups in the 12 to 34 age categories.**
- **Rates for methadone, hydrocodone, and oxycodone visits increased among males and females from 1995 to 2002 and continued to increase among males from 2000 to 2002.**
- **Polydrug use was common among drug abuse-related ED cases involving narcotic analgesics.**
- **Drug abuse-related visits involving the benzodiazepines alprazolam and clonazepam increased from 1995 to 2002. In 2002, visits involving alprazolam totaled more than 27,000, but they only increased among patients age 20–25. Visits involving clonazepam totaled slightly more than 17,000 in 2002.**
- **Rates for alprazolam-involved ED visits were equivalent across age groups, indicating that teenagers were as likely to enter the ED for this drug as the older groups.**
- **Visits involving diazepam were stable from 1995 to 2002, when the total reached nearly 11,200.**

These and other findings from the Drug Abuse Warning Network were presented by Dr. Crane, who is directly involved in DAWN efforts at the Office of Applied Studies, SAMHSA.

Overview. Data reported here represent ED visits from 1995 to 2002 that resulted from the nonmedical use of a prescription drug to achieve a psychic effect or because of dependence or suicidal behavior. Each visit may have involved more than one substance (including illicit, prescription, and over-the-counter drugs, and inhalants), and polydrug abuse was common.

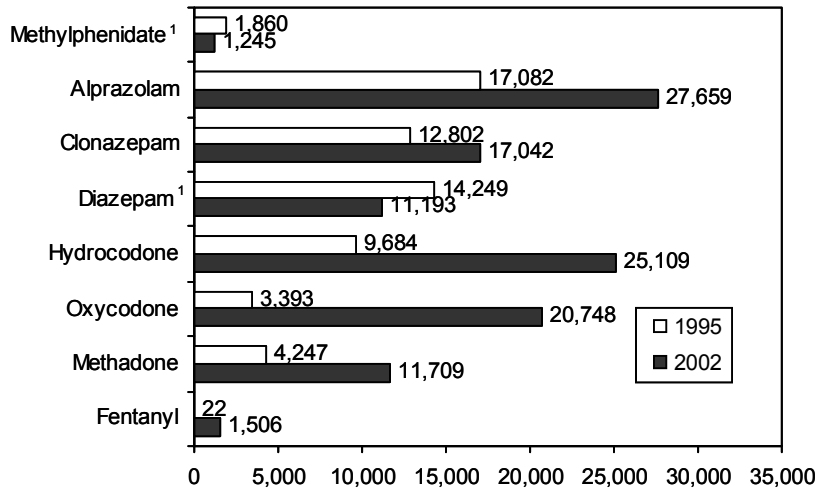
The major drugs covered here are as follows:

- Narcotic Analgesics—hydrocodone, oxycodone, methadone, and fentanyl

- Benzodiazepines—alprazolam, clonazepam, and diazepam
- Stimulants—methylphenidate

The number of drug abuse-related ED visits for each of these drugs is shown in exhibit A.

Exhibit A. Drug-Abuse Related ED Visits for Selected Narcotic Analgesics, Benzodiazepines, and Methylphenidate: 1995–2002



[1]Stable from 1995 to 2002.
SOURCE: DAWN, OAS, SAMHSA

Other findings are presented by drug type and will focus on trends in gender and age differences in drug abuse-related ED visits. Changes over time that were statistically significant ($p<0.05$) will be noted.

Narcotic Analgesics

The magnitude of the problem of drug abuse-related ED visits involving hydrocodone, oxycodone, methadone, and fentanyl from 1995 to 2002 is depicted above in exhibit A. All differences in the number of visits between 1995 and 2002 are statistically significant.

Age Observations. Analyses show age group differences in ED visits for hydrocodone, oxycodone, and methadone.[1] ED rates per 100,000 population for each of these drugs and age groups are shown in exhibit B. Rates for 12–17-year-olds were lower than those for the other age groups for each of the three drugs. The shaded cells for the 12–17 age group represent a statistically significant lower rate compared with the other groups for the specified drugs. As the exhibit footnote indicates, there were increases from 1995 to 2002 in methadone-involved visits for all four age groups. Between 1995 and 2002, ED visits also increased for hydrocodone- and oxycodone-involved visits among the 20–25 age group, with increases in hydrocodone-involved visits also reflected in the shorter term (2000–2002). Oxycodone-involved visits also increased from 1995 to 2000 and from 2000 to 2002 for the 26–34 age group. The 18–19-year-old group had a higher rate of oxycodone-involved visits from 2000 to 2002, but because the 1995 estimate was too imprecise for publication, the trend from 1995 to 2002 could not be calculated.

[1] Although drug abuse-related ED visits involving fentanyl did increase from 1995 to 2002, the number of visits remained small (*n*=1,506 in 2002), which prevented further analysis.

Exhibit B. Rates of ED Visits Per 100,000 Population for Selected Narcotic Analgesics and Benzodiazepines, by Age Group: 2002[1]

Drug	12–17	18–19	20–25	26–34
Hydrocodone	4	14	16+*	16
Oxycodone	1	14*	13+	18+*
Methadone	0.3+	4+	7+*	8+
Alprazolam	9	15	15+*	18
Clonazepam	3	9	8	12
Diazepam	1	6	4-	7-

[1]The plus (+) sign indicates a statistically significant ($p<0.05$) increase from 1995 to 2002, while the minus (-) sign indicates a decrease. An asterisk (*) indicates a statistically significant increase from 2000 to 2002. Because the trend in oxycodone-involved visits from 1995 to 2002 could not be measured for the 18–19-year-olds, the increase noted is for 2000–2002.
SOURCE: DAWN, OAS, SAMHSA

Gender Observations. Combined age group data show few differences by gender. In 2002, the ED rates per 100,000 population were equivalent for males and females for each of the three narcotic analgesics (*see exhibit C).* The rates for each drug increased for both gender groups from 1995 to 2002. However, between 2000 and 2002, the rates for each drug leveled off for females, while the increases for males were statistically significant.

Exhibit C. Rates of Drug Abuse-Related ED Visits Per 100,000 Population Age 12–34 for Selected Narcotic Analgesics and Benzodiazepines, by Gender: 2002[1]

Drug	Males	Females
Hydrocodone	11+*	14+
Oxycodone	14+*	10+
Methadone	6+*	4+
Alprazolam	12+	15
Clonazepam	6	10
Diazepam	4-	5

[1]The plus (+) sign indicates a statistically significant ($p<0.05$) increase from 1995 to 2002, while the minus (-) sign indicates a decrease. An asterisk (*) indicates a statistically significant increase from 2000 to 2002.
SOURCE: DAWN, OAS, SAMHSA

Comparison Across CEWG Areas. Rates also varied by metropolitan area. In 2002, New Orleans and Detroit had the highest rates of hydrocodone-involved visits for the 20–25-year-old group, although the Detroit rate overlapped with some other metropolitan areas. No metropolitan area stood out for the 26–34 age group. Rates for oxycodone-involved visits were highest in Boston and Philadelphia for both the 20–25 and 26–34 age groups, although Philadelphia overlapped with some other metropolitan areas. Methadone rates were highest in Newark and Seattle among the 26–34 age group, but rates for the 18–25 age group were similar across metropolitan areas.

Benzodiazepines

The magnitude of the problem with the benzodiazepines alprazolam, clonazepam, and diazepam is depicted above in exhibit A. In 1995 and 2002, alprazolam-involved ED visits were more numerous than those for clonazepam and diazepam. Differences between 1995 and 2002 in the number of ED visits involving alprazolam and clonazepam were statistically significant.

Age Observations. Rates per 100,000 population for alprazolam-involved ED visits were equivalent across age groups, which means that teenagers were as likely to enter the ED as persons in the older groups (see *exhibit B above).* Between 1995 and 2002, and between 2000 and 2002, the rate of alprazolam-involved ED visits increased only for the 20–25 age group. The only decreases occurring during this period were for diazepam-involved ED visits from 1995 to 2002 among the two older age groups.

Gender Observations. Rates of benzodiazepine-involved ED visits among the 12–34 age group were equivalent for males and females for alprazolam and diazepam in 2002 (*see exhibit C above).* The female

patients had a higher rate of drug abuse-related visits involving clonazepam, however. From 1995 to 2002, male patients experienced an increase in the rate of alprazolam-involved ED visits and a decrease in the rate of diazepam-involved visits. The trends between 2000 and 2002 were stable for both genders.

Comparison Across CEWG Areas. The rates of drug-abuse ED visits involving alprazolam in 2002 were highest in Philadelphia among patients age 20–25 and 26–34, with the latter age group also having a high rate in New Orleans. Rates for clonazepam were highest in Boston and Philadelphia among patients age 20–25 and in Boston for those age 26–34. The rates of diazepam-involved visits were similar across the metropolitan areas.

Stimulants

Drug abuse-related ED visits that involved methylphenidate were stable from 1995 (*n*=1,860) to 2002 (1,245). Because of small numbers, no further analysis was feasible for this drug.

Treatment Admissions for Abuse of Narcotic Painkillers—Treatment Episode Data Set: 1992–2002

Leigh Henderson, Ph.D.

Highlights from the TEDS data include the following findings on admissions (age 12 and older) reporting use of narcotic painkillers:

- **There were 84,000 admissions for narcotic painkillers in 2002: 51 percent were for primary abuse of a narcotic painkiller.**
- **Among the polydrug abusers in this group, alcohol and heroin were the most prominent primary drugs.**
- **Of the narcotic painkiller admissions in 2002, 87 percent were White, 6 percent were Black, 4 percent were Hispanic, and 3 percent were members of other racial/ethnic groups.**
- **The age pattern of treatment admissions has shifted in recent years, with higher proportions of younger admissions being in their twenties in 2002 than was the case in 1997. This shift was particularly pronounced for males in their twenties, the age group with the highest number of admissions in 2002. Admissions for females were highest in the 35–45 age group.**
- **Narcotic painkiller admissions were relatively stable from 1992 to 1997 (at approximately 30,000 each year), but rose sharply thereafter. In 1992, 5 States had narcotic painkiller admission rates of 24 or more per 100,000 population; by 1997, the number rose to 12 States, and, by 2002, to 31 States. From 1992 to 2002, one-quarter of the admissions were in five States, with New York and California ranking first and second, respectively. In 2002, rates were higher in non-central metropolitan areas and the highest rate was in Maine (207 per 100,000 population).**
- **An analysis of data from 11 States that used detailed drug codes showed that narcotic painkiller admissions increased 129 percent from 1997 to 2002. During that time period, admissions for oxycodone abuse increased 1,267 percent.**
- **Among 10 CEWG cities with the highest rates of narcotic painkiller admissions, 4 exceeded the national rate of 40, with Boston and Baltimore highest at 111 and 86, respectively.**

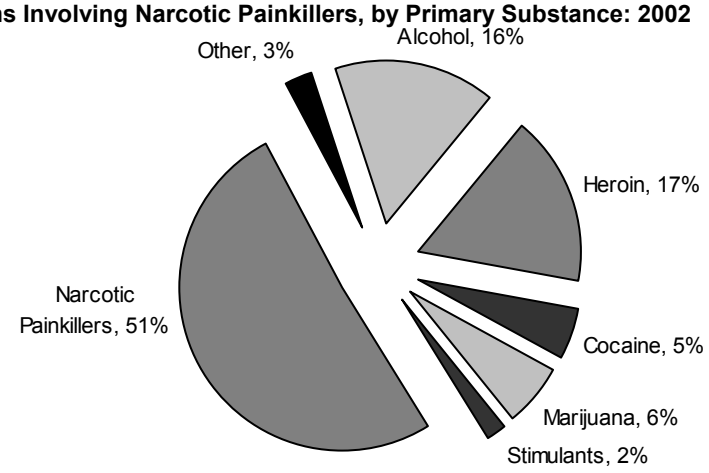
Data for this presentation, as reported by CEWG member, Leigh Henderson, Ph.D., Drug and Alcohol Services Information System (DASIS) Project Manager, Synectics for Management Decisions, Inc., was prepared in coordination with Deborah Trunzo and staff of OAS, SAMHSA.

Overview. TEDS, maintained by SAMHSA, collects client-level information on admissions from States. The data represent admissions (rather than individuals) age 12 and older who receive treatment in publicly funded facilities.

The focus of this presentation is on admissions for which narcotic painkillers ("Other opitates/synthetics") are the primary, secondary, or tertiary drug of abuse, excluding admissions for nonprescription use of methadone.

Selected Findings. In 2002, 84,000 of the 1.9 million admissions in TEDS used a narcotic painkiller as a primary, secondary, or tertiary drug. Some 51 percent reported a narcotic painkiller as their primary drug, a 246-percent increase from the primary admissions in 1992. The 2002 admissions were primarily White (87 percent), with 6 percent being Black, 4 percent Hispanic, and 3 percent members of other racial/ethnic groups. This group of admissions was most likely to use heroin or alcohol, indicating some level of dual addiction (*see exhibit A*).

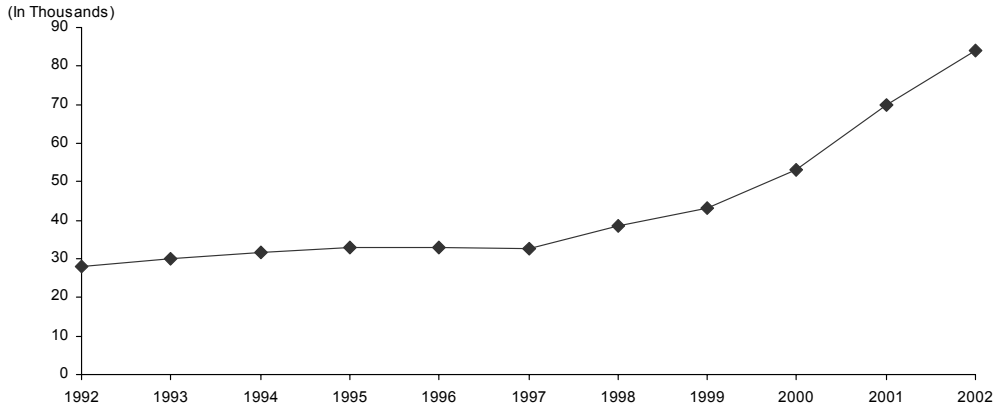
Exhibit A. Admissions Involving Narcotic Painkillers, by Primary Substance: 2002



SOURCE: TEDS, OAS, SAMHSA

From 1992 to 2002, admissions involving narcotic painkillers rose from approximately 28,000 to 84,000. The upward trend began in 1998, as depicted in exhibit B.

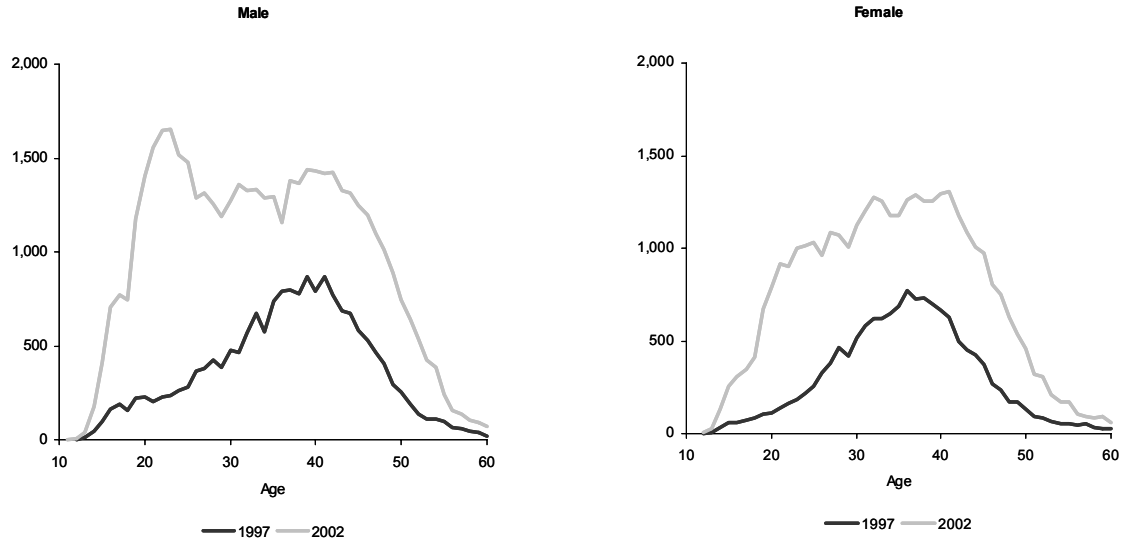
Exhibit B. Admissions Involving Narcotic Painkillers: 1992–2002



SOURCE: TEDS, OAS, SAMHSA

Other trend data show there has been a shift in the age pattern of narcotic painkiller admissions in recent years. As depicted in exhibit C, there has been a dramatic increase in the proportion of male admissions in their twenties, when 1997 and 2002 data are compared. Admissions for females were highest for those in the 35–45 age range.

Exhibit C. Narcotic Painkiller Admissions by Gender and Age: 1997 and 2002

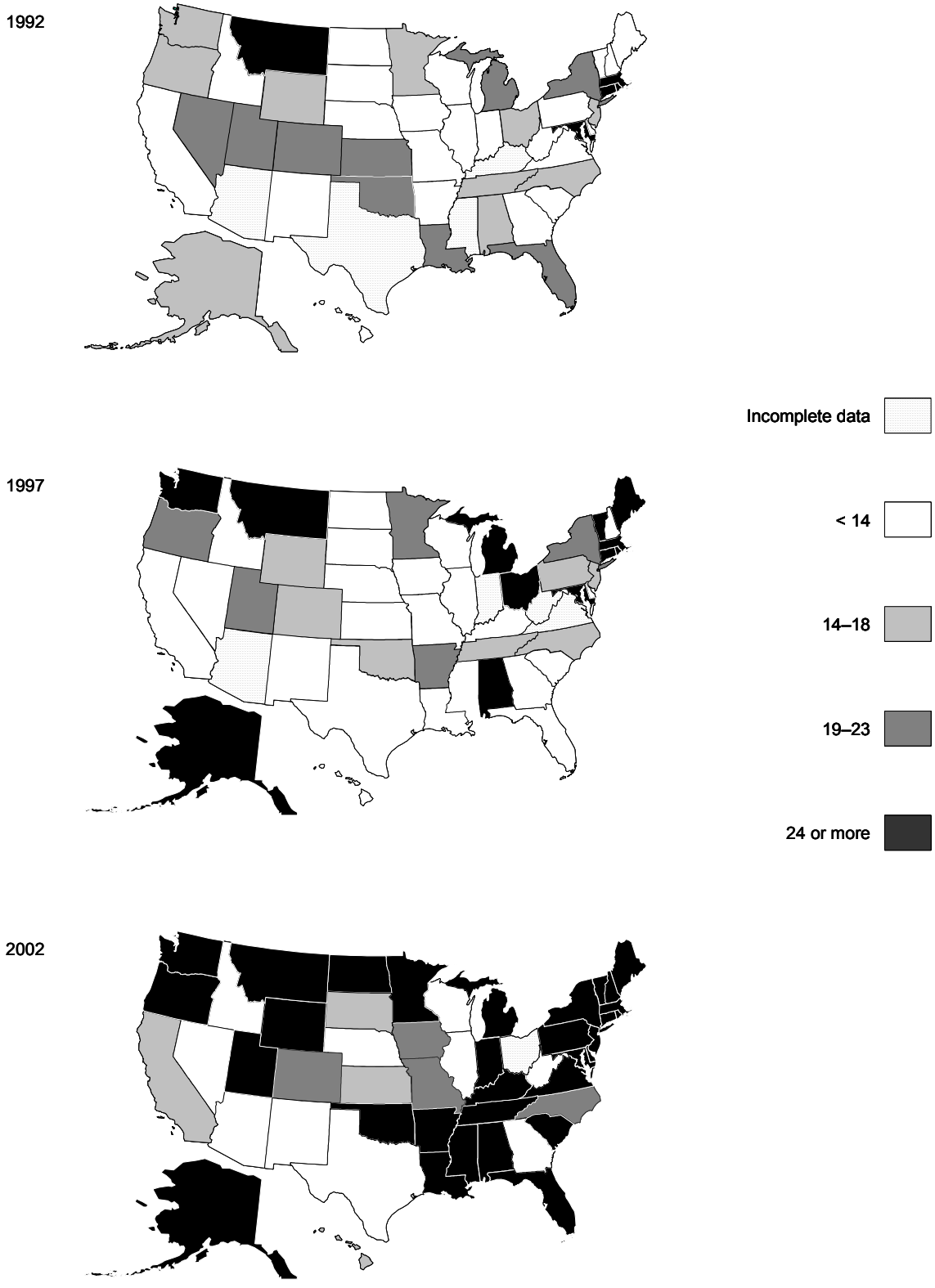


SOURCE: TEDS, OAS, SAMHSA

Five States accounted for 25 percent of the increase in narcotic painkiller admissions from 1992 to 2003 (the 2003 data are preliminary). These were, in rank order: New York (*n*=55,663), California (45,129), Washington (22,992), Texas (13,668), and Maine (10,894). The admissions were primarily White (87 percent in 2002).

The maps on the following page show narcotic painkiller admission rates per 100,000 population by State for 1992, 1997, and 2002 (*see exhibit D*). In 1992, 5 States (shown in black) had narcotic painkiller admission rates of 24 or more per 100,000 population. By 1997, another 7 States had rates of 24 or more, bringing the total to 12. In 2002, 31 States had narcotic painkiller admission rates of 24 or higher. The highest rates were in the New England States and ranged from 89 per 100,000 population in Connecticut to 207 in Maine. In each of the 3 years depicted in the maps, those in white fell below the median rate of narcotic painkiller admissions in reporting States.

Exhibit D. Rates of Narcotic Painkiller Admissions Per 100,000 Population: 1992, 1997, and 2002



SOURCE: TEDS, OAS, SAMHSA

DEA Data on Prescription Drug Abuse: Narcotic Analgesics

Liqun Wong, M.S.

Drug Enforcement Administration data for 2001–2003 on narcotic analgesics show the following:

- **Hydrocodone and oxycodone were, by far, the narcotic analgesics most frequently analyzed by DEA, State, and local laboratories, followed by methadone and codeine.**
- **Hydrocodone items were more prevalent in the West and South Regions of the Nation, while oxycodone items were more numerous in the Northeast.**
- **From 2001 to 2003, retail distribution of narcotic analgesics increased for hydrocodone, oxycodone, methadone, morphine, and codeine; total theft and loss of oxycodone and methadone peaked in 2002.**

Documentation of these findings, as presented by Liqun Wong, DEA, are based on data that are primarily from the following sources:

- The National Forensic Laboratory Information System, sponsored by DEA, which systematically collects results from State and local forensic laboratories on analyses of drug seizures
- The System to Retrieve Information from Drug Evidence, a DEA program that analyzes drugs seized by DEA, the Federal Bureau of Investigation, the U.S. Customs Service, and others
- Automation of Reports and Controlled Orders System, an automated DEA database that tracks the flow of controlled substances from the manufacturer to controlled distribution systems to sales at the dispensary/retail level (e.g., hospitals, pharmacies, and practitioners)

NFLIS Data. As shown in exhibit A, narcotic analgesics accounted for between 2.1 and 2.9 percent of all items analyzed by State and local forensic laboratories in 2001–2003. Of the total narcotic analgesic items analyzed, hydrocodone and oxycodone accounted for nearly 70 percent in each of the 3 years. Across the 3 years, the percentage of items that were methadone increased slightly by 2003, while those for codeine decreased slightly.

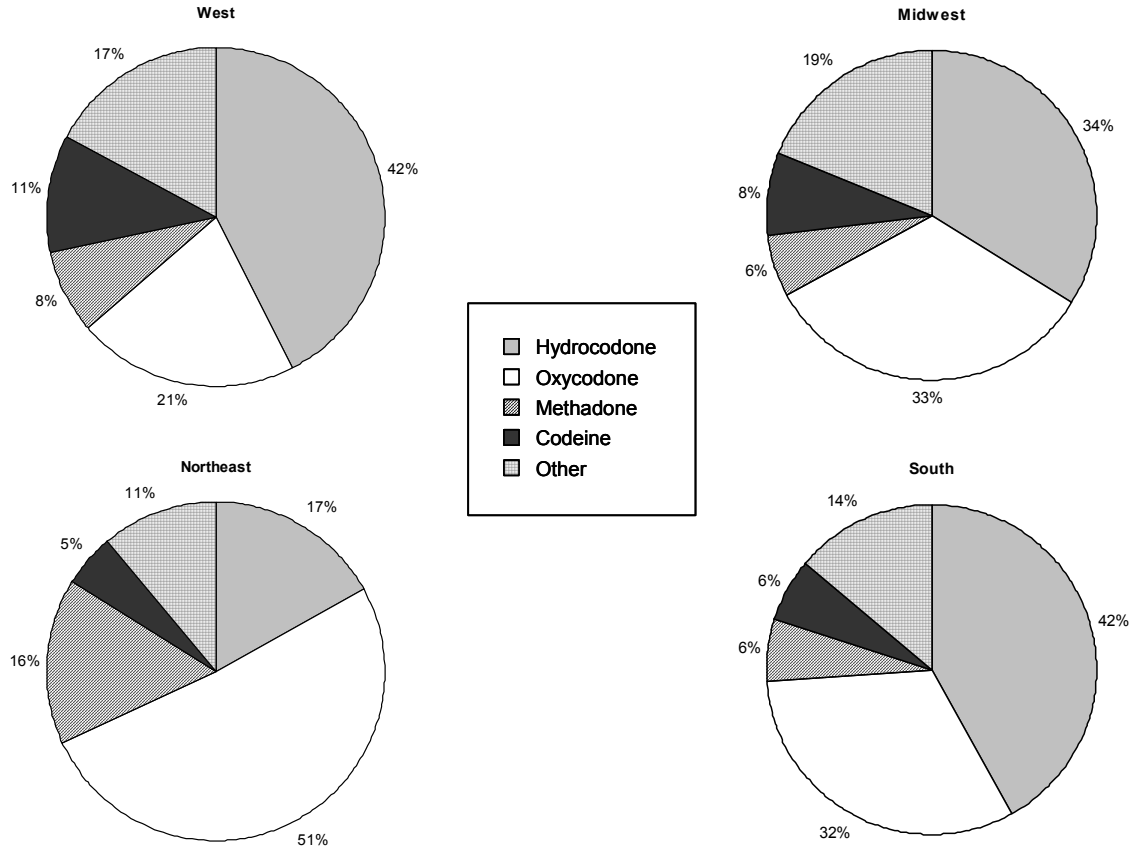
Exhibit A. Estimated Numbers and Percentages of Narcotic Analgesic Items Analyzed by Forensic Laboratories: 2001–2003

Drug	Total		2001		2002		2003	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Hydrocodone	47,399	34.5	13,659	34.9	16,838	34.2	16,903	34.6
Oxycodone	47,093	34.3	13,004	33.2	17,569	35.7	16,520	33.8
Methadone	11,299	8.2	2,490	6.4	3,842	7.8	4,967	10.2
Codeine	9,932	7.2	3,572	9.1	3,603	7.3	2,757	5.6
Morphine	7,037	5.1	2,103	5.4	2,400	4.9	2,534	5.2
Propoxyphene	6,853	5.0	2,264	5.8	2,486	5.0	2,103	4.3
Other Narcotic Analgesics	7,719	5.6	2,083	5.3	2,507	5.1	3,130	6.4
Total Narcotic Analgesic Items	137,332		39,174		49,244		48,914	
Total Analyzed Items	5,366,149		1,828,838		1,821,714		1,715,597	
Percent Identified as Narcotic Analgesics		2.6		2.1		2.7		2.9

SOURCE: NFLIS, DEA

There were regional differences in the distribution of the drugs seized/analyzed by NFLIS labs, as the combined data for 2001–2003 show (*see exhibit B*). Hydrocodone was more prevalent in the West and South Regions, while oxycodone was highest in the Northeast Region.

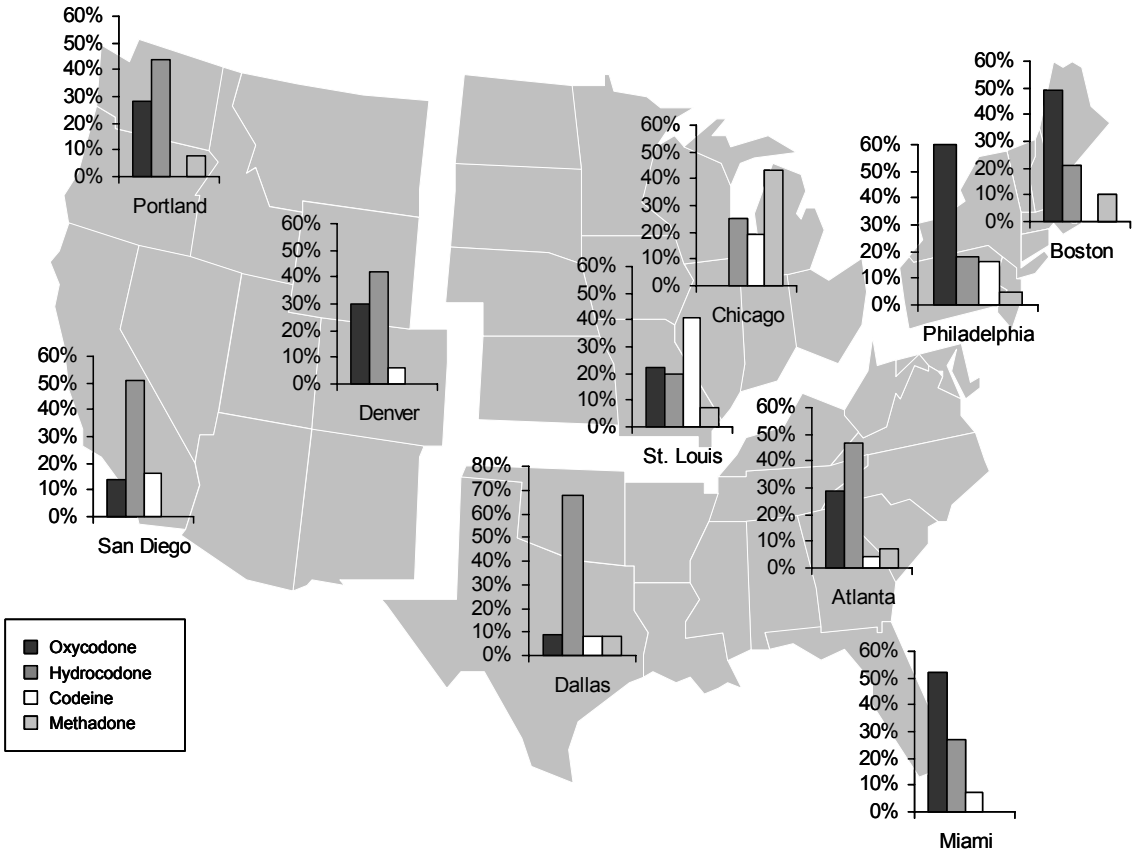
Exhibit B. Distribution of Narcotic Analgesic Items Analyzed by NFLIS, by Region and Percent: 2001–2003



SOURCE: NFLIS, DEA

Exhibit C on the following page depicts the percentages of the four most frequently analyzed narcotic analgesic items in nine CEWG areas and Portland, Oregon, from 2001 to 2003. Hydrocodone items dominate in Atlanta and in west coast and southwestern CEWG areas. Oxycodone is most predominant in Boston, Philadelphia, and Miami. Methadone accounted for the highest percentage of the narcotic analgesic items in Chicago, while codeine accounted for the largest percentage in St. Louis.

Exhibit C. Narcotic Analgesic Items Analyzed in 10 Cities, by Percent of All Narcotic Analgesic Items: 2001–2003



SOURCE: NFLIS, DEA

The pattern of seizures/analyses reported by STRIDE shows that hydrocodone and oxycodone account for the majority each year (*see exhibit D*).

Exhibit D. Seizures of Narcotic Analgesic Drugs Reported by STRIDE: 2001–2003

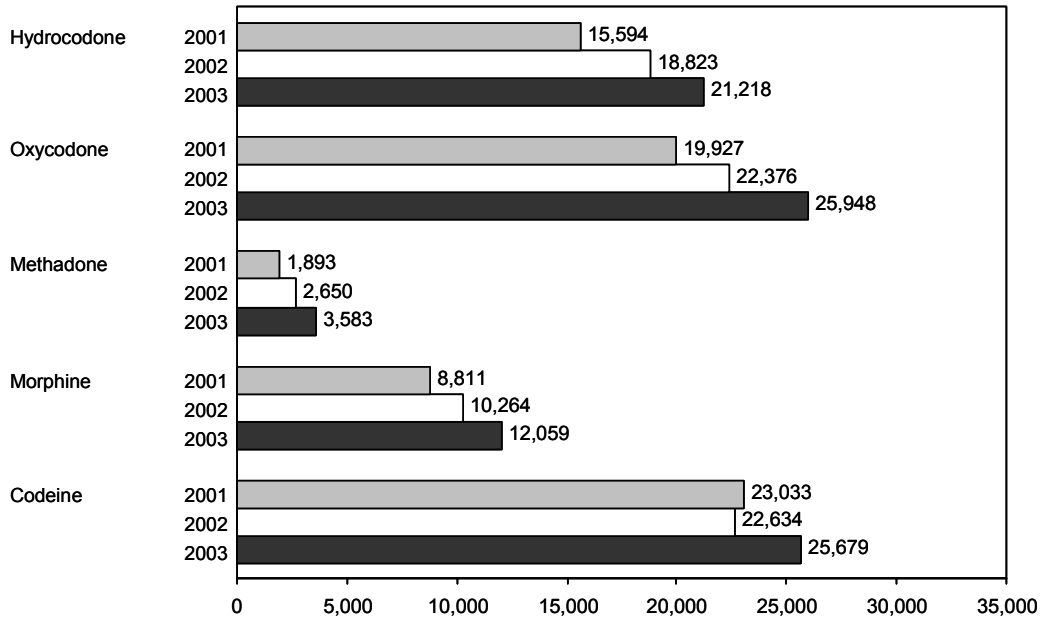
Drug	Total		2001		2002		2003	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Hydrocodone	1,120	32.8	291	25.1	344	32.8	485	40.2
Oxycodone	1,079	31.6	480	41.4	308	29.4	291	24.1
Codeine	299	8.8	84	7.2	97	9.2	118	9.8
Methadone	257	7.5	82	7.1	78	7.4	97	8.0
Morphine	220	6.4	59	5.1	80	7.6	81	6.7
Propoxyphene	174	5.1	71	6.1	58	5.5	45	3.7
Other Narcotic Analgesics	266	7.8	93	8.0	84	8.0	89	7.4

SOURCE: STRIDE, DEA

The pattern of STRIDE seizures/analyses differs little from that reported by NFLIS (*see exhibit A*). In both, hydrocodone and oxycodone account for the majority of items. As a percentage of all items seized, codeine and morphine were more prominent in STRIDE, while methadone and propoxyphene accounted for a larger percentage of NFLIS items by 2003.

Retail Distribution Data. ARCOS data for 2001, 2002, and 2003 on retail distribution of five narcotic analgesic drugs show a slightly upward trend for hydrocodone, with the amount distributed rising approximately 5,600 kilograms from 2001 to 2003 (*see exhibit E*). Oxycodone also shows an upward trend, with 6,000 more kilograms distributed retail from 2001 to 2003. Retail distribution of methadone, morphine, and codeine also increased over the 3 years.

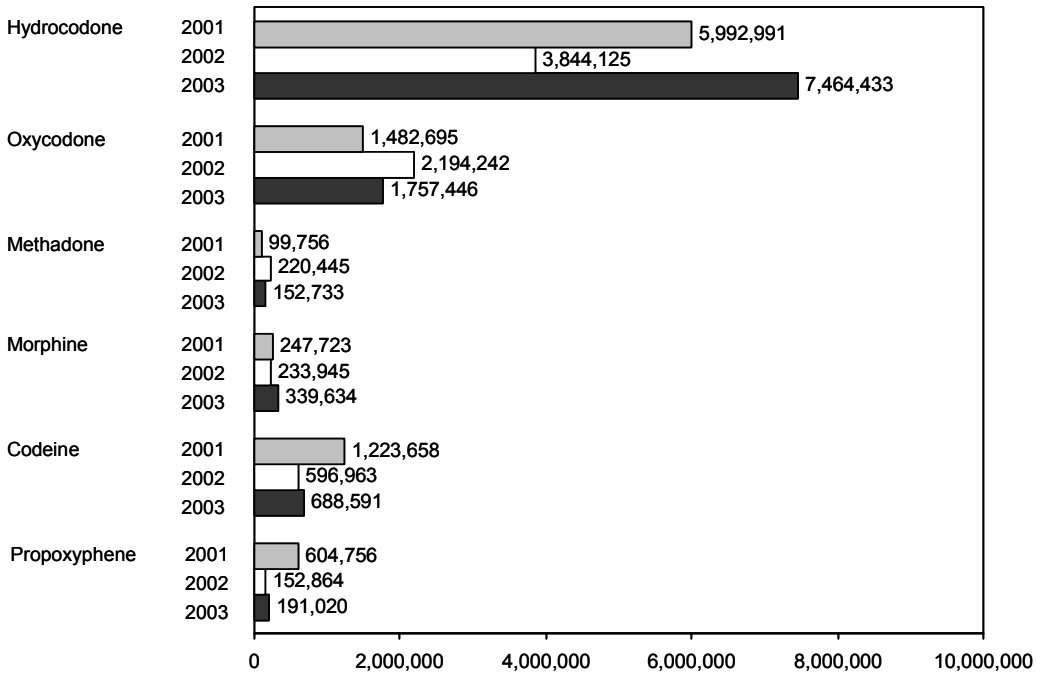
Exhibit E. Retail Distribution of 5 Narcotic Analgesic Drugs, in Kilograms: 2001–2003



SOURCE: ARCOS-2, DEA

Theft and Loss. Information from another DEA database shows the dosage units of six narcotic analgesics and is based on information from registered narcotic analgesic handlers that are mandated to report theft or loss to the DEA. As shown in exhibit F, theft and loss for hydrocodone increased between 2002 and 2003, while oxycodone theft and loss declined during that time. For the other four drugs, codeine and propoxyphene loss decreased from 2001 to 2003, while morphine and methadone theft and loss increased in that period.

Exhibit F. Narcotic Analgesics Theft and Loss, in Number of Dosage Units: 2001–2003



SOURCE: DEA

Teenage Benzodiazepine Abuse and Misuse and United States Poison Control Centers: 2000–2003

William Watson, Pharm.D.

The Toxic Exposure Surveillance System (TESS) notes the following findings from 2000 through 2003 on teenagers reporting to poison control centers reporting to TESS. In 2003, 64 poison control centers (PCCs) reported to TESS, including 51 regional PCCs. The entire population of the 50 States, District of Columbia, and Puerto Rico were served by PCCs in 2003. However, because of variations in penetrance, the data, strictly speaking, cannot be considered national.

- **Benzodiazepines were the most commonly abused and misused prescription medications involving teen cases reported to TESS.**
- **Alprazolam accounted for 48 percent of the teenage cases.**
- **Nearly one-half (49 percent) of the teenage benzodiazepine cases involved more than one substance.**
- **Of the cases followed up by poison control centers and for which treatment was indicated, 17.9 percent had moderate (e.g., disorientation) or major (e.g., life-threatening symptoms) outcomes.**

These findings from the American Association of Poison Control Centers (AAPCC), TESS, represent center cases involving abuse and misuse of prescription drugs, especially benzodiazepines, by teenagers (age 13–19) from 2000 to 2003.

Overview of TESS. TESS was developed to provide uniformity in data collection from poison control cases. The AAPCC publishes an annual report each year in *The American Journal of Emergency Medicine* that summarizes human poisoning exposures. The information is available on the AAPCC Web site at <http://www.aapcc.org/annual.htm>.

The TESS data are useful for identifying the abuse of new or uncommon substances and changing patterns

of abuse, since these cases may be more likely to result in health care providers contacting a poison center than is the case for more frequently encountered drugs. The predominance of calls to centers from the general public is unique among "real-time" surveillance systems and provides a different perspective on substance abuse. Geomapping permits comparison of rates of abuse and misuse by State and county.

Teenage Substance Abuse and Misuse. From 2000 through 2003, 670,064 poison center cases reported to TESS involved teenagers. More than one-half (55.9 percent) of the calls came from home, and 43.2 percent of cases were managed outside a health care facility. The reason for exposure was intentional in 306,213 cases (45.7 percent). The most common reasons for intentional poisoning exposures in this age group were suspected suicide (*n*=187,393), abuse (62,021), and misuse (43,480).

An assessment of the 200 most commonly abused and misused substances among teenagers shows that nonprescription drugs accounted for 33.7 percent of the cases and prescription medications accounted for 26.2 percent of the cases, followed by ethanol and illicit substances.

Benzodiazepines are the most common group of prescription medications reported in teenage abuse/misuse cases to poison control centers participating in TESS. This pattern was somewhat more common in 2000 and 2003 than in 2001 and 2002. From 2000 onward, the most commonly reported benzodiazepines were as follows:

- Alprazolam—48 percent
- Clonazepam—23 percent
- Diazepam—12 percent
- Lorazepam—11 percent
- Flunitrazepam—5 percent

More than one substance was involved in 49 percent of the benzodiazepine abuse or misuse cases.

Two-thirds of the benzodiazepine cases were followed up by the poison control center, and 17.9 percent had a moderate or major outcome. Moderate outcomes are those with symptoms that are not life threatening, rapidly respond to treatment, and have no residual disability (e.g., disorientation or hypotension); some form of treatment is usually indicated in these moderate cases. Major outcomes are defined as cases with life-threatening symptoms or those that result in significant residual disability or disfigurement (Watson et. al 2003).

Across the 4 years, 11 teenage deaths involved abuse or misuse of benzodiazepines. In all 11 deaths, benzodiazepines were in combination with at least one other drug, and the benzodiazepine was not listed as the primary drug in any of these cases.

Reference

Watson, W.A.; Litovitz, T.L.; Rodgers, Jr., G.C.; Klein-Schwartz, W.; Youniss, J.; Rose, S.R.; Borys, D.; and May, M.E. 2002 Annual Report of the American Association of Poison Control Centers Toxic Exposure Surveillance System. *The American Journal of Emergency Medicine* 21(5): 353-421, 2003.

Examining Clonazepam and Other Sedative Hypnotics Using Treatment and Qualitative Data

Bruce Mendelson, M.P.A.

This exploratory study in Colorado focused on clonazepam (an anxiolytic/sedative benzodiazepine used medically to treat anxiety, panic, and seizure disorders) and resulted in the following findings/conclusions:

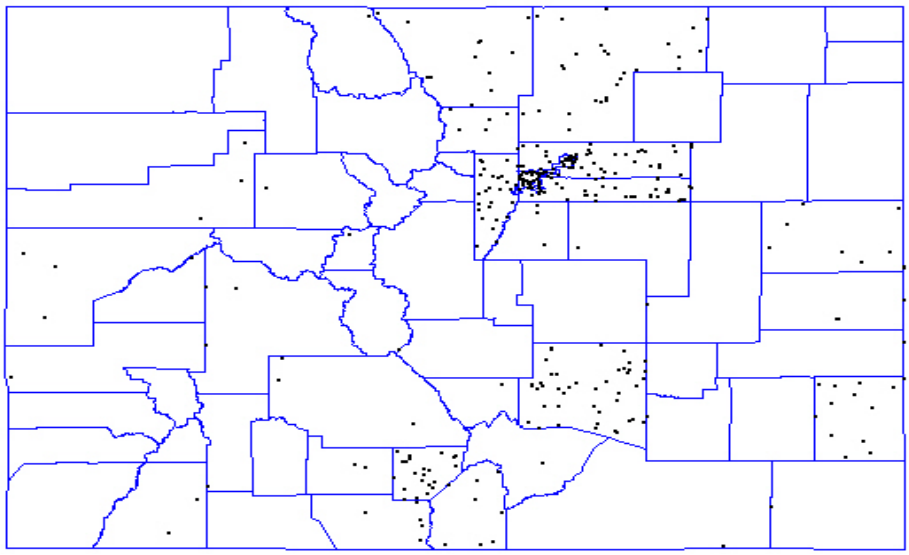
- **In 2002 and 2003, relatively high percentages of sedative abusers who entered treatment in Colorado reported clonazepam as their primary drug of abuse.**
- **Results from this exploratory study suggest that clonazepam is widely available, especially in some areas of the State, and that it may be preferred because of its anti-anxiety effects and the long duration of effects.**

Methods. Bruce Mendelson, CEWG representative from Denver, described how secondary analysis of treatment data and a qualitative study were conducted in early 2004 to learn more about clonazepam abuse

in Colorado. Clinicians from 13 treatment programs were contacted as key informants for the qualitative study. Additionally, treatment admissions data were examined to better characterize the drug-abusing population and the treatment experience of clonazepam abusers, and to assess clinical information from treatment programs.

Findings. Of the 451 clients who reported sedative hypnotic abuse in 2002, 60 percent specified clonazepam as their primary drug. Among the sedative hypnotic treatment admissions in 2003 *(n*=361), 42.1 percent were primary clonazepam abusers. Individuals admitted to treatment in 2002 and 2003 were plotted on a map to determine where in the State they lived (*see exhibit A*). It was learned that most clonazepam treatment admissions resided in the Denver metropolitan area and in the southeast and south central sections of the State.

Exhibit A. Clonazepam Treatment Admissions by Colorado County: 2002–2003



SOURCE: Colorado Alcohol and Drug Abuse Division

Clonazepam abusers were less likely than other types of sedative hypnotic abusers to be daily users (14.7 vs. 30.3 percent), new users (5.7 vs. 16.0 percent), or to have been arrested. They were also less likely to have medical/physical problems at treatment admission and discharge. Clonazepam abusers were more likely to have made progress in achieving treatment goals. At discharge, some 36.6 percent received "high" ratings for achievement of treatment goals (compared with 22.1 percent for the other sedative hypnotic admissions), and 44.6 percent received "moderate" ratings (compared with 27.0 percent for other sedative hypnotic admissions).

Clinician informants identified primary reasons for using clonazepam, which included the following:

- Wide street availability and easy access were reported for the drug.
- Younger methadone clients liked it for the "high."
- Clients older than 18 had the ability to get prescriptions.
- The drug helps with ethanol withdrawal (i.e., shakes, fear of seizures).

The following were some of the desired effects from clonazepam identified by key informants:

- Relaxation, calm, reduced anxiety, sedation high
- Euphoria (i.e., feel good)
- Avoidance of withdrawal
- Reduction/elimination of pain
- Sleep enhancement

The treatment data show that 84.0 percent of the clonazepam abusers took the drug orally, 13.0 percent

smoked it, and 1.4 percent inhaled the substance. Less than 1 percent reported that they injected clonazepam.

According to the informants, clonazepam is obtained from a variety of sources, including prescriptions from physicians and doctor shopping, family and friends, and dealers. The cost of the drug depends on the strength (i.e., 0.5, 1.0, 2.0 milligrams). Clonazepam pills typically sell for $2–$5 on the street.

Nonmedical Use of Prescription Drugs: Preliminary Findings from the College Life Study

Amelia Arria, Ph.D.

This pilot study, conducted in early 2004 at a mid-Atlantic university (primarily with freshmen and sophomores), led to the following estimates:

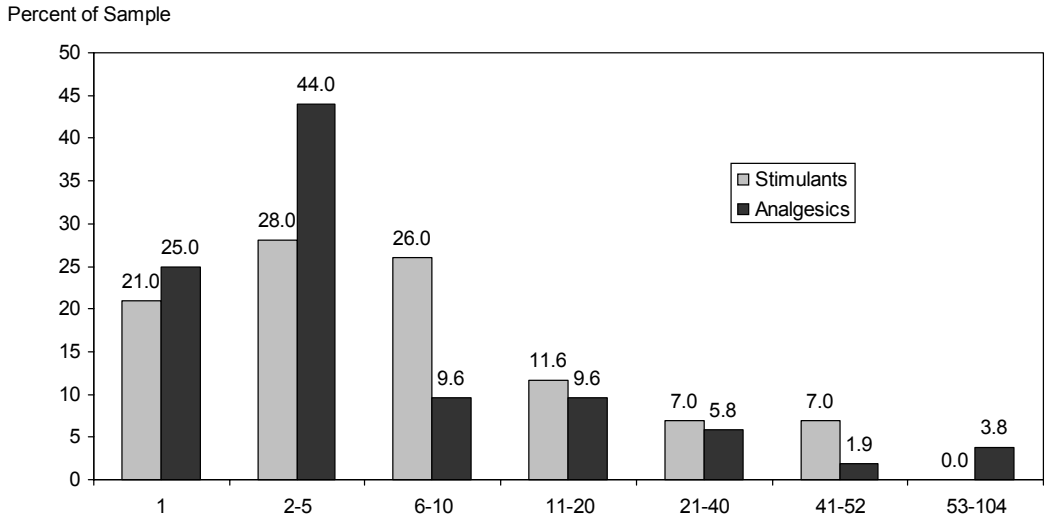
- **An estimated 15.5 percent of the students had used prescription pain relievers nonmedically at least once in their lifetime.**
- **An estimated 13.4 percent of the students had used prescription stimulants nonmedically at least once in their lifetime.**
- **A high proportion of nonmedical users of prescription drugs had a history of using other illicit or licit drugs, including alcohol.**

Dr. Arria, who serves as the Principal Investigator of this study at the Center for Substance Abuse Research (CESAR), University of Maryland, presented these and other findings from the pilot study supported through NIDA grant R01DA14845.

Sample and Methods. The pilot study included 468 students, age 18–25. Eighty percent were freshmen and sophomores. One-half were males, 69 percent were White, and 12 percent were African-American. All participants were administered a classroom-based questionnaire that included items on nonmedical use of prescription drugs, as well as use of alcohol, tobacco, and illicit drugs.

Findings. Of the pilot sample, 13.4 percent had used prescription stimulants nonmedically and 15.5 percent had used prescription pain relievers nonmedically at least once during their lifetime. More than one-half (51.6 percent) had used prescription stimulants nonmedically six or more times in the past year, compared with 31.0 percent of nonmedical prescription pain reliever users (*see exhibit A*).

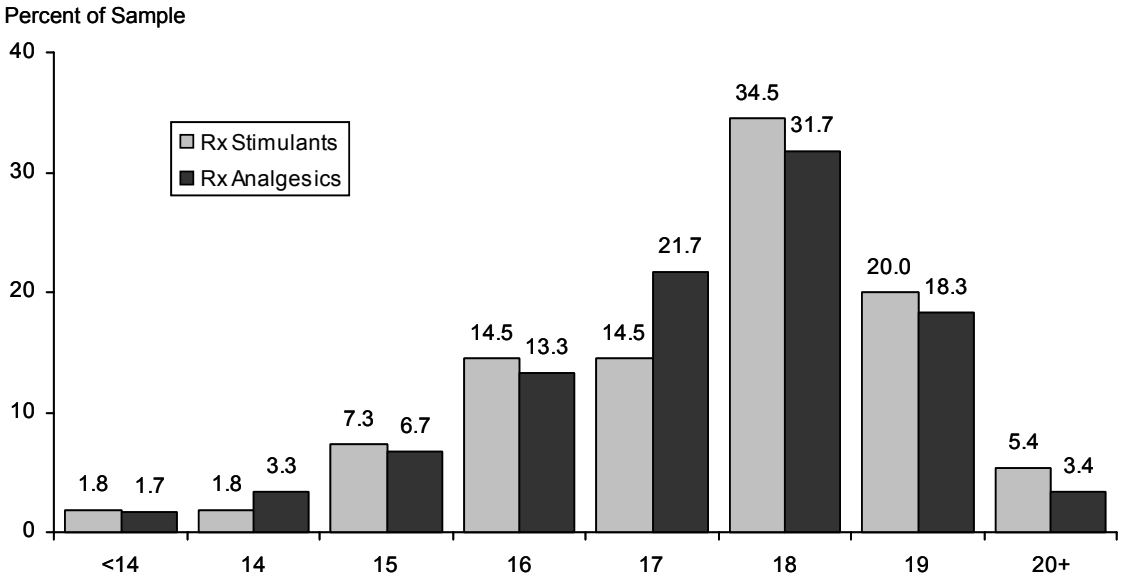
Exhibit A. Number of Occasions Prescription Stimulants and Analgesics Were Used Nonmedically by Students in the Past Year, by Percent: 2004



SOURCE: CESAR

Nearly one-half (47.2 percent) of the nonmedical prescription pain reliever users and 39.9 percent of the nonmedical prescription stimulant users began using these drugs before the age of 18 (*see exhibit B*).

Exhibit B. Age of First Use of Prescription Analgesics and Stimulants Nonmedically, by Percent: 2004



SOURCE: CESAR

Males were more likely than females to use prescription drugs nonmedically.

Comparisons were made between three groups of students: prescription analgesic users, prescription stimulant users, and nonusers of these prescription drugs. The Scholastic Achievement Test (SAT) scores and ages were comparable in all three groups. However, a higher proportion of prescription drug users than nonusers reported attention deficit or hyperactivity disorders.

Ninety-two percent of the nonmedical users of prescription stimulants had used marijuana, compared with 44 percent of the nonusers of either prescription drug. In addition, one-half of the nonmedical prescription pain reliever users had used hallucinogens, compared with only 5 percent of the nonusers.

The longitudinal "College Life Study" is now in its implementation phase. It builds on what was learned from the pilot study and is designed to assess the impact of alcohol and drug (nonmedical and illicit) use on students' behaviors, performance, and opportunities over time. A Federal Certificate of Confidentiality and Institutional Review Board approval have been obtained. Plans are to interview nearly 2,000 of the 4,500 incoming freshmen in the fall of 2004. In addition, an effort will be made to obtain funding for a qualitative study to obtain more insight into the process of initiation and consequences of nonmedical prescription drug use.

Prescription Drug Abuse Among Ecstasy Users in Miami

Steven Kurtz, Ph.D.

Major findings from this qualitative study of prescription drug/ecstasy users in Miami include the following:

- **Polydrug use was the norm among the young people in the study. Use patterns crossed age, gender, and ethnic boundaries.**

- **Many different prescription drugs were used with illicit drugs to "get high."**

- **Prescription drugs were perceived as safer and purer, more respectable, and more available than illicit drugs, and also as less expensive and less likely to have negative side effects than illicit drugs.**

- **There were many potential prescription drug suppliers, including families, friends, pharmacies in other countries, and street- and nightclub-based dealers. The drugs were obtained in a variety of ways, including insurance fraud and theft from pharmacies and hospitals. Online pharmacies were not trusted for fear they were monitored by authorities.**

Dr. Kurtz, University of Delaware, reported these and other findings from this research in Miami. The effort was informed by a multisite study funded through NIDA grant R01DA1854, which is described by the Principal Investigator, Linda Cottler, Ph.D., in the June 2003 CEWG *Volume II Proceedings.*

Background. Based on quantitative data, it was found that 87 percent of ecstasy users in study of "club drug users" were also prescription drug abusers and had used prescription drugs for nonmedical purposes more than five times during their lifetime. Qualitative observational studies showed that the number of drugs used for partying in Miami clubs appears to keep expanding and that more clubs are reverting to being "cocaine friendly," meaning that customers can visit the restrooms regularly to get high without creating a problem with security guards. In fact, the term "club drugs" is not a very helpful one in Miami, because so many drugs and combinations of drugs are being used in the club cultures. Of note also is the fact that in a study of students in Delaware, it was found that those who used narcotic painkillers were more likely to be polydrug abusers than other students (Inciardi et al. 2004). Given such information, this followup qualitative study was designed and implemented.

Study Sample and Methods. The qualitative data were gathered through eight 60–90-minute focus groups comprised of three to four members each, who were recruited through flyers in nightclub districts and print media advertisements. One indepth interview was also conducted with a 39-year-old Hispanic prescription drug dealer. The study was also informed by a focus group of health professionals conducted in 2002.

The 30 focus group members included 24 males and 6 females. Thirteen of the 24 males were Hispanic, 5 were Anglo, 2 were African-American, and 4 were members of other racial/ethnic groups. Fourteen of the males were heterosexual, and 11 were homosexual or bisexual. The males ranged in age from 18 to 45. The six females differed little in age from the males (19–43); five females were heterosexual, two were Hispanic, two were members of other racial groups, and the others were Anglo or African-American.

Based on eligibility criteria, all focus group members had used ecstasy in the prior 3 months and had used prescription drugs recreationally more than 5 times in the prior 12 months and at least once in the 30 days prior to the group meeting. All frequented nightclubs in the Miami area. Pseudonyms were used to link demographic questionnaire data to transcribed focus group discussion data. A grounded theory approach guided the study.

Findings. The results cover attitudes, onset patterns, continuing use patterns, sources of supply, and health and social consequences of prescription drug abuse.

Attitudes. Typically, focus group members perceived prescription drugs to be safer and purer than illicit street drugs. Prescription drugs were perceived to be more "respectable," legal, and available than illicit drugs, and also to be less expensive and less likely to have side effects. The following quotes from participants express some of these perceptions:

- *Knowing that some scientist somewhere said 'Yeah, it's safe enough to sell to a pharmacy' helps.* (Anglo male, age 32)

- *If you're taking prescription drugs, you're not really on drugs, you know? These are like products that you can sell. There's advertising for them. They just kind of fit into a capitalist framework better than marijuana, which is not packaged in proper packages. Whereas, Eli Lilly, you know that's a respectable name. They're traded on the New York Stock Exchange.* (Anglo male, age 35)

- *I know certain people who don't touch street drugs. They think they're horrible and grimy. But they'll blow* [prescription drugs] *up their nose like every day.* (Asian female, age 20)

With regard to legality, participants generally agreed that they would be less concerned about being caught

by police with OxyContin or Xanax in their pocket than with ecstasy or cocaine. They felt any number of excuses could be used to explain why they could legally carry the drug (e.g., "I left my prescription at home," "I was carrying them for my girlfriend").

Onset Patterns. There were two distinct patterns related to use of prescription drugs. "Early onset" describes those who first abused prescription drugs in junior or senior high school. Commonly used were Xanax, Ritalin, and diet pills. Use was peer-driven, no money usually changed hands, and onset often coincided with first use of alcohol and marijuana. For many early onset users, there was a period when they stopped using prescription drugs before they resumed, with the later abuse usually occurring in the context of the onset of "harder" street drug use.

The "later onset" pattern usually took the form of using benzodiazepines or opioids *after* using stimulants. Prescription drug use was engaged in specifically to "take the edge off" or "come down from" street stimulants, such as ecstasy, cocaine, and methamphetamine.

Another common pattern was using benzodiazepines and opioids with alcohol as a way of getting drunk without drinking so much. This cuts expenses at nightclubs, which typically charge a $25 cover and an average of $8 to $10 for an alcoholic beverage.

Prescription pills generally cost about $1–$2 each and are available through a wide range of sources, including peers and dealers. Prices vary by drug. OxyContin is the most expensive and is not particularly popular in this ecstasy-using population; however, a number of participants reported that OxyContin is a "sex enhancer." Polydrug patterns were typical, as indicated earlier and described in more detail below.

Continuing Use Patterns. In addition to the patterns of onset discussed above, there were other common themes expressed about using prescription drugs to "get high." Combining different prescription drugs or prescription drugs with street drugs was commonplace, with some users experimenting with many different combinations to see what psychic effect they would have. Surprisingly, antipsychotics were mentioned rather frequently as part of the drug "mix." One theory was that if the user were not psychotic, the drugs would induce a psychotic-type state. With respect to Xanax, participants felt they were more likely to take ecstasy if they already had a Xanax pill, because they would have a "smooth come down." It was frequently mentioned that dealers are now packaging either benzodiaepines or opioids with ecstasy so you "buy two for one."

Some prescription and illicit drug combinations used to get high were as follows:

- Ritalin, marijuana, and alcohol
- Benzodiazepines, opioids, and alcohol
- Codeine and ecstasy
- Hydrocodone and cocaine
- Antipsychotics, alprazolam, cocaine, marijuana, and alcohol

Some participants described using prescription drugs as *substitutes* for street drugs when the street drugs became unavailable, too expensive, or of poor quality. These included such combinations as phentermine plus cocaine rather than methamphetamine; Valium instead of marijuana; and Klonopin plus Marinol rather than heroin.

Some participants described using prescription drugs as *alternatives* to illicit drugs, or combinations believed to be "equal" to a street drug. These included the following:

- Vicodin plus marijuana = ecstasy
- Xanax plus methamphetamine = ecstasy
- Painkillers plus alcohol = GHB (gamma hydroxybutyrate)

Sources of supply for prescription drugs include leftover personal or family member medications; prescriptions obtained through false statements; family or friends with legitimate medical conditions (especially HIV/AIDS); Medicare/insurance fraud; pharmacies in Mexico, South America, and the Caribbean; street- and nightclub-based dealers; flyer advertisements; online pharmacies; and pharmacy and hospital theft. Note, however, that online pharmacies were unpopular with this group because of fears that the sites are monitored by authorities.

Overall, this group of participants reported experiencing social problems from their abuse of prescription drugs, with isolation being common. Financial and employment problems, school problems, and problems with relationships with family and friends were also reported.

There is concern about the normalized integration of prescription and street drug cultures as well as the potential for seeking new drug experiences through experimentation with the types of drug combinations found in this study.

Reference

Inciardi, J.A.; Martin, S.S.; Surratt, H.L.; and Gealt, R. 2004. Prevalence of narcotic analgesic abuse among students: Individual or poly-drug abuse? *Archives of Pediatric and Adolescent Medicine* 158:498–499, 2004.

Special

Presentations

Prescription Drug Abuse in Maine

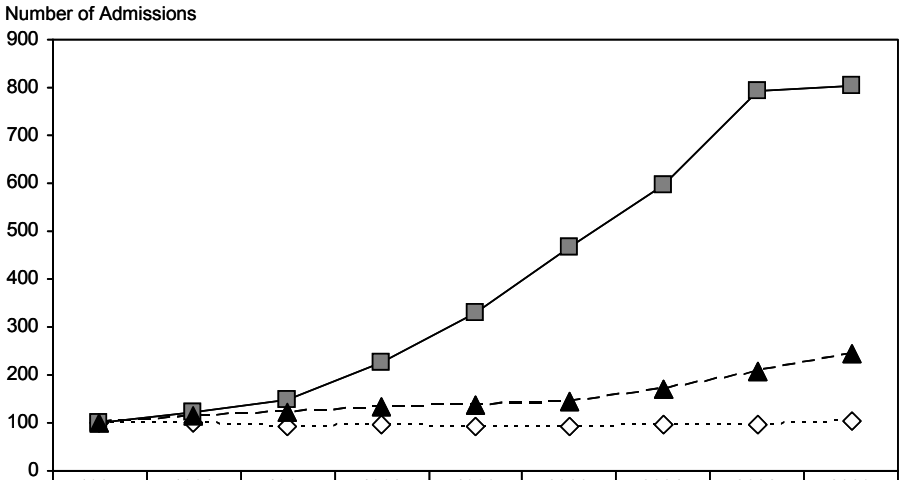
Marcella H. Sorg, R.N., Ph.D., D-ABFA[1]

ABSTRACT

Pharmaceutical drugs in Maine are driving morbidity and mortality rates to levels many times their mid-1990s numbers. Most (95 percent) of Maine's 2003 drug deaths involved one or more pharmaceutical drugs. The primary drug classes behind the large increase in treatment volume and mortality are narcotic pharmaceuticals, with very significant involvement among drug deaths from the benzodiazepines and alcohol. Polypharmacy patterns create complexity for reporting and assessing mortality causes. Two or more drugs are implicated in 64 percent of Maine's drug-deaths; in 19 percent of drug-related deaths, the medical examiner has noted simply "polydrug toxicity" because of the complex toxicological findings.

Maine is a rural State, with only 1.2 million inhabitants, two-thirds of whom are thinly distributed across a large geographic area. Maine has experienced a dramatic increase in prescription drug abuse that began in the mid-1990s, as reflected in treatment data (*see exhibit 1*) and mortality data. During the late 1990s, national attention was focused on Maine, particularly Washington County, reportedly because of the abuse of OxyContin.

Exhibit 1. Trends in Maine Treatment Admission Volume[1] 1995–2003



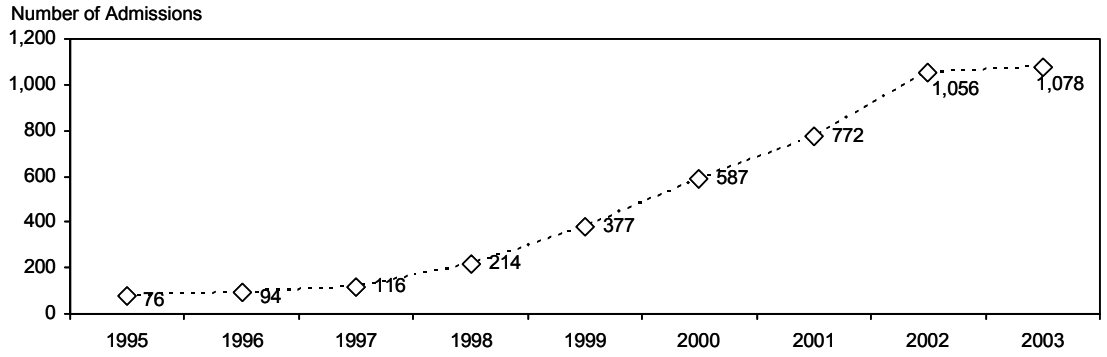
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Alcohol	100	101	94	95	93	94	96	97	103
Prescription Drugs	100	123	147	225	329	467	597	792	804
Illicit Drugs	100	116	123	133	138	145	172	208	245

[1]Calculated as a percent of 1995 levels.

When the treatment data are grouped by primary drug, it is clear that prescription opiates and opioids are fueling the upswing in prescription drug admissions (*see exhibit 2*). Pharmaceuticals are implicated in 95 percent of drug-related deaths in Maine, either alone or in combination with other substances.

[1]The author is affiliated with the Margaret Chase Smith Center for Public Policy, University of Maine, Orono, Maine.

Exhibit 2. Trends in Maine Treatment Admission Volume for Prescription Opiates/Opioids: 1995–2003

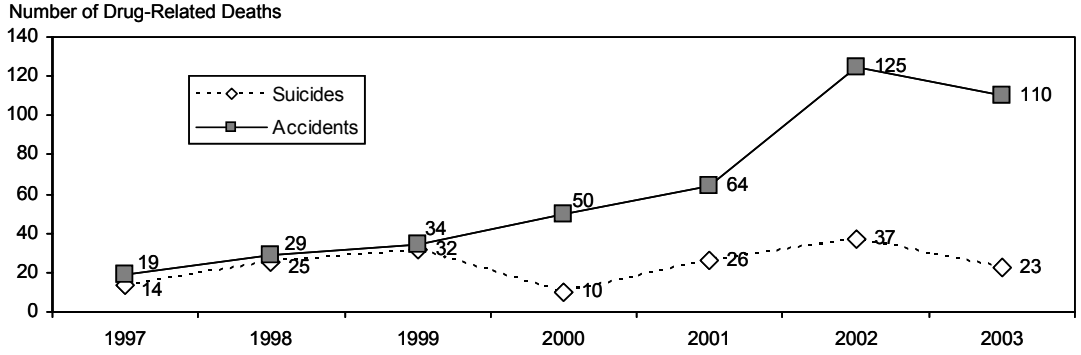


Polysubstance patterns in drug-related deaths are prominent and have increased since 1997. (The polydrug cases are those in which the combination of drugs was too complex to implicate specific substances in the cause of death.) The proportion of drug deaths in Maine attributed to "polydrug toxicity" remains high, accounting for 19 percent of the deaths in both 2002 and 2003. Of the deaths attributed to polydrug toxicity, 33 percent are suicides, although the proportion of suicides to all deaths generally is about 15 percent. Of 140 drug-related deaths in 2003, 36 percent were related to a single drug and 64 percent were related to two or more. The combinations in polydrug cases frequently involved benzodiazepines and narcotics, as well as alcohol.

The rise in prescription drug-related treatment admissions is reflected in the mortality data. In Maine, decedents in all suspected drug-related deaths undergo a full toxicology and an autopsy. Maine drug-related and drug-induced deaths increased from 34 in 1997 to a peak of 166 in 2002; such deaths declined slightly to 140 in 2003. The totals for 2003 are preliminary.

Exhibit 3 shows accidental deaths and drug-related suicides in Maine from 1997 to 2003. Of 132 total drug deaths for which there was a toxicology report in 2003, excluding the cases caused by morphine/heroin in which pharmaceutical status is unknown, 125 (95 percent) of the death certificates mentioned 1 or more pharmaceutical substances as the cause or as a significant contributing factor. In the past, unless noted otherwise, nearly all heroin/morphine cases were non-pharmaceutical. In 2003, there was an increase in deaths related to prescription morphine. Of the six heroin/morphine cases in which pharmaceutical status is known, four were related to pharmaceutical morphine.

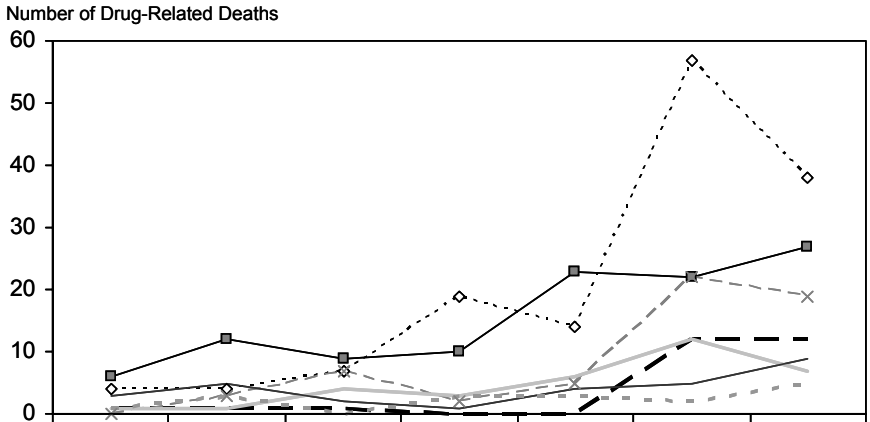
Exhibit 3. Maine Trends in Accidental and Suicidal Drug-Related Deaths: 1997–2003



The vast majority of deaths involved pharmaceuticals; 82 percent involved at least one narcotic or were classified as "polydrug toxicity," with narcotics in the toxicology findings. Of the 113 narcotic pharmaceutical deaths, 39 (35 percent) involved a single substance and 65 percent involved narcotics in combination with other drugs. The most common combination was 2 or more narcotics (*n*=32); 6 of the cases involved a combination of three narcotics. Narcotic-benzodiazepine combinations caused 23 deaths, and narcotic-alcohol combinations caused 18.

Exhibit 4 displays the trends among specific narcotics-related deaths since 1997. Although opiate/opioid-related deaths have increased, the largest increase involved methadone, which peaked in 2002. As shown in exhibit 4, morphine/heroin ranked second for narcotics-related deaths in 2003; such deaths increased from 10 in 2000 to 23 in 2001 and remained relatively stable in 2002 and 2003. Oxycodone ranked third; oxycodone-related deaths peaked in 2002 and decreased slightly in 2003.

Exhibit 4. Maine Trends in Deaths Involving Narcotics: 1997–2003

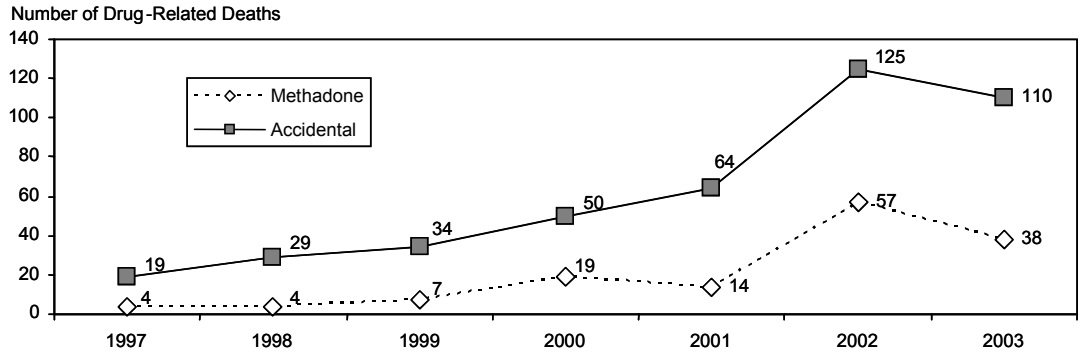


	1997	1998	1999	2000	2001	2002	2003
Methadone	4	4	7	19	14	57	38
Morphine/heroin	6	12	9	10	23	22	27
Codeine	1	1	1	0	0	12	12
Oxycodone	0	3	7	2	5	22	19
Fentanyl	1	1	4	3	6	12	7
Propoxyphene	3	5	2	1	4	5	9
Hydrocodone	1	3	0	3	3	2	5

The number of deaths involving methadone (as a cause or a significant contributing factor, either alone or in combination with other drugs) quadrupled between 2001 and 2002, but such deaths decreased from 57 in 2002 to 38 in 2003 (when they accounted for 28 percent of all drug deaths). A small number of cases with methadone toxicology (*n*=4) are still pending determination of cause and manner of death. An additional 11 cases in 2003 were methadone-associated, caused by polydrug toxicity with methadone and other drugs present in the toxicology findings.

Exhibit 5 depicts the number of methadone-related deaths, showing also the total number of accidental drug deaths. A detailed study of the 2001 deaths revealed that in approximately one-quarter of the methadone deaths, the decedent had a prescription for liquid methadone (addiction treatment) and about one-quarter had a prescription for the pill form (pain treatment); one-half had no known prescription. State policy changes in methadone clinic regulations in early 2003 tightened control on take-home medication.

Exhibit 5. Maine Trends in Methadone-Related and Accidental Drug Deaths: 1997–2003



Several pharmaceutical opiates/opioids play a significant role in Maine's mortality patterns. The following summary details trends for key pharmaceuticals implicated in Maine deaths, either alone or in combination with other drugs:

- Oxycodone-related deaths more than quadrupled from 2001 to 2002, as they increased from 5 to 22. Such deaths decreased slightly to 19 in 2003 (14 percent of deaths). An additional five cases caused by polydrug toxicity had oxycodone and other drugs present in the toxicology findings.

- Fentanyl-related deaths more than doubled between 2001 and 2002, when they increased from 6 to 14. They decreased to 7 in 2003 (5 percent of deaths). An additional death caused by polydrug toxicity had fentanyl and other drugs present in the toxicology findings.

- Codeine-related deaths have assumed a prominent role in drug-related deaths since 1997. They totaled 12 (7 percent) in 2002 and 12 (9 percent) in 2003.

There has been an upsurge nationally in morbidity and mortality associated with benzodiazepine misuse and abuse. About one-third of Maine's drug-related deaths have some form of benzodiazepine present in the toxicology findings. In 2003, 9 (6 percent) had a benzodiazepine mentioned on the death certificate, down from 18 (11 percent) in 2002. One benzodiazepine—diazepam—is in the "top 10" list for Maine, causing 21 deaths over the past 6 years. An additional 15 deaths caused by polydrug toxicity had 1 or more benzodiazepines present in the toxicology findings. If the polydrug cases are combined with those in which benzodiazepines are implicated specifically, the deaths totaled 29 (17 percent) in 2002 and 24 (17 percent) in 2003.

An extensive study of Maine's 2002 benzodiazepine morbidity, mortality, and prescribing patterns was conducted by the Maine Benzodiazepine Study Group (Sorg, Gressitt, and Mugford 2004). The study reveals that a fairly large percentage of adults (4–19 percent) have prescriptions for some form of benzodiazepine. The prescription rate is higher among adults older than 50 and among adult females of all ages. Anthem Insurance subscribers age 50–69 have a 10 percent benzodiazepine prescription rate. Among Medicaid clients, the prescription rates climb to 19 percent for adults older than 50. Rates of diversion are not well measured, because the drugs are not scheduled and have not been tracked in criminal justice settings. In Maine's treatment setting, less than 1 percent of clients are admitted for benzodiazepine dependency (primary drug). Poison control statistics for 2002 show that 4 percent of exposures and 10 percent of information calls were for benzodiazepines.

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Drug Abuse Patterns and Trends in Ohio

Harvey A. Siegal, Ph.D., Robert G. Carlson, Ph.D., Deric R. Kenne, M.S., and Raminta Daniulaityte, Ph.D.[1]

ABSTRACT

Active drug users and front-line responders, such as treatment providers and law enforcement personnel, report that the availability and abuse of cocaine in Ohio has increased between 2000 and 2004. These same respondents report that it is suburban and inner city adolescents and young adults who appear to be responsible for the increase in mentions. This same group appears to be responsible for the increase in heroin mentions as well. Since 2003, reports from all areas of Ohio point to a connection between initial pharmaceutical opioid abuse and subsequent heroin dependency. According to OSAM respondents, OxyContin has been the most popular opioid of abuse, especially among suburban youth and White females. Consistent reports of an increase in methamphetamine abuse have persisted since 2001. Law enforcement personnel report a steady increase in the number of methamphetamine lab seizures across the State. Methamphetamine was initially mentioned as the primary drug of abuse in 2002 in parts of northeastern Ohio; since then other areas report similar observations. In 2003–2004, there were numerous reports indicating that "crystal" methamphetamine had become available, and smoking became a common mode of administering the drug. Reports of methamphetamine abuse by suburban youth and young adults have increased in this last reporting period. Ecstasy use appears to be declining.

OHIO'S SUBSTANCE ABUSE MONITORING (OSAM) NETWORK

OSAM operates as a statewide drug surveillance system. The Ohio Department of Alcohol and Drug Addiction Services supports the operation of OSAM through a contract to Wright State University and a subcontract to the University of Akron. The Center for Interventions, Treatment, and Addictions Research, at Wright State University, is responsible for the overall operation of the surveillance network. At the heart of the OSAM project are eight Regional Epidemiologists (REPIs) who collect and analyze data from different areas of the State representing each of its major metropolitan centers and selected rural areas. These include Akron, Athens, Cincinnati, Cleveland, Dayton, Toledo, Youngstown, southeastern Ohio and northeastern Ohio. OSAM researchers make use of archival data and ethnographic research to provide real-time data on local and statewide drug abuse patterns and trends to treatment and prevention agencies and professionals. Drug trend reports are produced every 6 months; targeted reports focusing on a single research question are also prepared. The *OSAM-O-Gram*, a 1-page report easily distributed by e-mail and fax, summarizes key findings and provides State officials and other agencies with critical information in a timely fashion.

Findings in this report are derived from OSAM data gathered from 2000 to mid–2004.

To access reports and learn more about OSAM, visit the ODADAS website at:
www.state.oh.us/ada/odada.htm.

DRUG ABUSE PATTERNS AND TRENDS

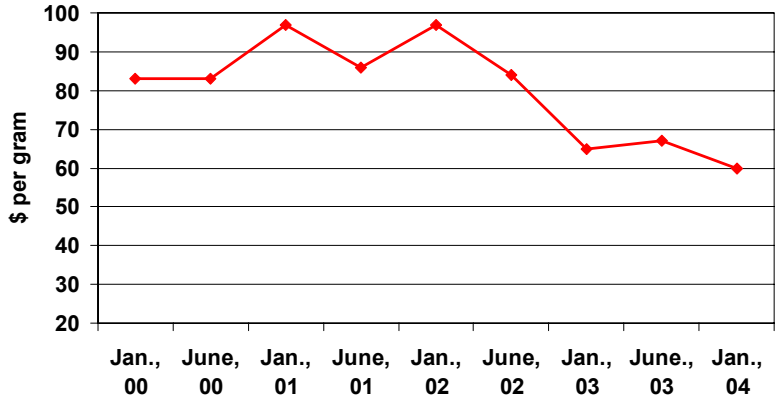
Cocaine/Crack

Since 2000, availability and abuse of crack cocaine have remained at relatively high levels in most urban areas of the state. From 2000 to 2002, availability of powder cocaine in Ohio was relatively low. The drug was of poor quality, typically converted to crack, and sold for approximately $80–$100 per gram. Powder cocaine was perceived as the "rich man's drug," and there were only sporadic reports of use among older suburbanites and suburban high-school age individuals.

Since late 2002, however, many areas of the State began reporting increasing availability of powder cocaine. Prices began decreasing (exhibit 1), and the drug became accessible to broader population of abusers. Reports of use by adolescents and young adults from the inner city as well as suburbia increased in frequency. Cocaine use was also increasing in the party ("rave") scene and at clubs. Also, more heroin users reported "speedballing," which they attributed to the recent availability and relatively inexpensive powder cocaine.

[1]The authors are affiliated with the Center for Interventions, Treatment, and Addiction Research, Wright State University.

Exhibit 1. Changes in Average Prices for a Gram of Powder Cocaine Statewide, by Year: 2000– January 2004



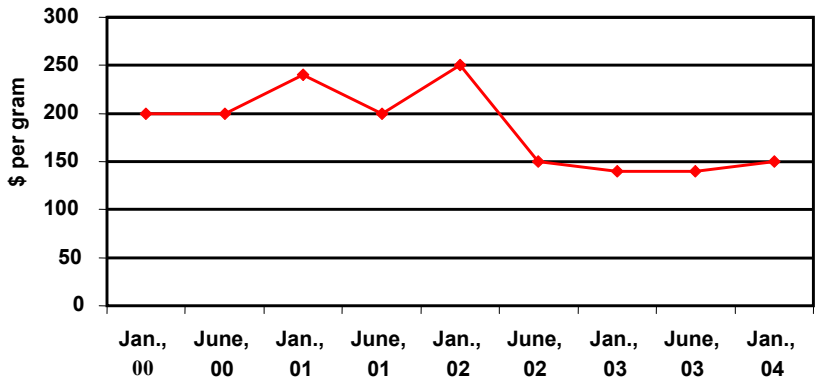
Heroin

From 2000 to 2001, there were some reports of increasing availability of heroin in most areas of the State; the exceptions were Athens (rural) and Cincinnati. REPIs noted that heroin potency was increasing and that the drug sold for $200–$250 per gram. There were also signs of increasing heroin abuse among White suburban youth and young adults who might start off by snorting the drug. In June 2001, the first reports appeared about users moving from pharmaceutical opioids to heroin as prescription opioids became more difficult to obtain because of heightened law enforcement activity.

From 2002 to 2004, heroin availability increased in most areas of the State, while prices decreased (exhibit 2). In 2003, heroin sold for between $150 and $180 per gram in most areas of the State. In January 2004, some users from Columbus area reported heroin selling for as low as $100–$120 per gram. In January 2002, increases in heroin availability and abuse were also reported in the Cincinnati area.

White, suburban youth appear to be the fastest growing group of heroin abusers. Since 2003, most areas have reported a connection between initial pharmaceutical opioid abuse and subsequent heroin dependency. Admissions for methadone treatment increased significantly in Dayton and other areas in the State.

Exhibit 2. Changes in Average Prices for a Gram of Heroin Statewide: 2000–January 2004



Other Opioids

In 2000–2001, the major abusers of pharmaceutical opioids in Ohio were White women age 30 and older, heroin abusers, and older individuals. There were few reports of pharmaceutical opioid abuse among White youth and young adults.

From 2000 onward, however, OxyContin became one of the most popular prescription analgesics in most

areas of the State. Abuse was reported among diverse populations of abusers, but White suburban youth and young adults were consistently identified as one of the fastest growing groups of new users. OSAM data from the June 2002 Dayton report strongly suggested that many of these young users turned to heroin after becoming dependent on prescription opioids, especially OxyContin. Other prescription opioid drugs such as Vicodin and Percocet continued to be commonly abused, and were typically considered less desirable than OxyContin by most White drug users.

Since late 2003, OxyContin became more difficult to obtain as prices rose and the drug became less available because of increased media attention on the negative effects of OxyContin.

In January 2003, the first reports of Duragesic (fentanyl transdermal delivery system) abuse were noted in Akron, Columbus, Dayton, and Youngstown. Crime lab investigators in Dayton also called attention to the increasing availability of fentanyl "suckers." According to active drug users from the Dayton area, fentanyl was more commonly abused among White, male heroin users. In January 2004, Akron, Columbus, and Youngstown REPIs continued to reports sporadic availability of fentanyl; the first reports about fentanyl abuse were obtained in the Cincinnati area.

Also in 2003, initial data obtained from active abusers from the central Ohio, Columbus area, suggested an increase in availability and abuse of methadone tablets. In January 2004, reports about methadone tablet abuse were also obtained in Akron, Cincinnati, and Youngstown areas.

In 2003, the abuse of tramadol (Ultram and Ultracet) was noted in the Columbus area, primarily among White, suburban youth and young adults.

Methamphetamine

In 2000, REPIs in most areas of Ohio documented low, sporadic availability of methamphetamine, with most being of poor quality ("crank"). The drug was usually snorted and abuse was typically among poor White residents. However, in June 2000, the Akron REPI began reporting increases in the number of seizures of methamphetamine laboratories in the area. In January 2001, the number of methamphetamine lab seizures increased in the Dayton area, and by June, the numbers had risen in most areas of the State.

In January 2002, neither treatment providers nor street-level users reported seeing increases in methamphetamine abuse. By June, treatment providers in Akron began to see more clients who were abusing methamphetamine. By 2002, there were continuing reports of increasing numbers of lab seizures by law enforcement personnel in most areas of the State. This trend continued into the 2003–2004 reporting period. Reports of crystal methamphetamine trafficking began to appear. Active users and law enforcement personnel indicated that currently methamphetamine was of higher quality than in the past. Prices of the higher quality methamphetamine ranged between $130 and $180 per gram. Smoking the drug became increasingly popular and there were persistent reports of increased abuse of methamphetamine, by White suburban youth and young adults.

Ecstasy

In 2002, OSAM documented increases in ecstasy abuse, typically among White youth at raves and clubs. Reports of continuing increases in the availability of ecstasy were made in 2001 and 2002. In Dayton, treatment providers began seeing more clients who were abusing ecstasy, and there were reports of ecstasy abuse at "house parties" in addition to the usual raves and clubs. In Akron, Cleveland, Lima, and later Dayton, there were reports that ecstasy abuse has spread to African-American youth and young adults.

In June 2003, most areas of the State began documenting a "leveling off" of ecstasy abuse. Active users indicated that the quality of the drug was decreasing. Reports of decreases in ecstasy abuse in most areas of the State have continued into 2004.

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International

Report

Update of the Epidemiologic Surveillance System of Addictions (SISVEA) in Mexico: 2003

Roberto Tapia-Conyer, Patricia Cravioto, Pablo Kuri, Mario Cortés, and Fernando Galván[1]

ABSTRACT

A component of the National Surveillance System of Mexico, the Epidemiological Surveillance System of Addictions of Mexico (SISVEA) was established in 1990 to provide periodic and timely information on tobacco, alcohol, and other illegal drugs of use. Data and information are collected from 53 cities, and data sources include government treatment centers (GTCs), nongovernment treatment centers (NGCs), juvenile detention centers, and medical examiners (for drug-related death data). In 2003, cocaine was the most common primary drug of abuse among patients at GTCs, accounting for 29.8 percent, and the second most common primary drug at NGCs (19.1 percent). Nearly 19 percent of the 9,561 juveniles arrested during 2003 used cocaine. At NGCs in 2003, heroin was the most common primary drug of abuse (accounting for 21.1 percent of patients), while at GTCs primary heroin abuse ranked fifth (2.4 percent). Information from the Juvenile Detention Centers showed that 0.8 percent of juveniles arrested in 2003 used heroin. Marijuana was the third most commonly reported primary drug of use at GTCs in 2003 (16.7 percent), and it was the fifth most common at NGCs (9.7 percent). Marijuana was the most frequently reported illicit drug used by juveniles arrested in 2003 (34.5 percent). Medical examiner data indicated that 3.3 percent of deaths reported were associated with marijuana. Inhalants ranked as the fourth most common primary drug of abuse at both GTCs (9.8 percent) and NGCs (11.2 percent) in 2003. According to Juvenile Detention Centers, 14.6 percent of juvenile arrestees used inhalants.

INTRODUCTION

Surveillance is the essence of epidemiology in health services; it is the means of attaining information for advancing prevention, assessment, and evaluation on morbidity and mortality. The main goals of epidemiological surveillance are prevention and control of health problems, and the application of surveillance involves multidisciplinary and permanent task forces, in order to keep control and assessment of all activities involved. Surveillance is a component of all the activities that are related to the prevention and control of health problems, and it leads to decision-making. These are the reasons why the Mexican Ministry of Health, in accordance to its normative and coordinated functions in the National Health System (which includes private and public health institutions), established the Epidemiological Surveillance System of Addiction of Mexico (SISVEA) in 1990. SISVEA is one of the main components of the National Surveillance System of Mexico and is the product of collaboration among different government and non-government agencies. During the last 14 years, SISVEA has provided periodic and timely information on tobacco, alcohol, and illegal drug use. This information allows the Mexican Ministry of Health to identify risk groups, emerging drugs, and risk factors associated with the use and abuse of drugs.

Data Sources

This report presents an update of SISVEA's activities in 2003 using the data sources described below:

- **Treatment data** cover the characteristics and consumption patterns related to the first drug of use and the primary drug of use among admissions to treatment. The data are obtained from government treatment centers (GTCs) (the Centers of Juvenile Integration) and nongovernment treatment centers (NGCs) that operate in SISVEA cities for the period 1991–2003.

- **Medical examiner (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. These data were reported for 2003.

- **Drug consumption data** for juvenile arrestees were provided by Juvenile Detention Centers 2003.

[1] The authors are affiliated with the Ministry of Health of Mexico.

DRUG ABUSE PATTERNS AND TRENDS

Marijuana

GTC Data

Marijuana was the second most common drug of first choice (12.5 percent) and third most frequently mentioned primary drug (16.7 percent) at GTCs in 2003 (exhibit 1). The proportion of treatment admissions reporting marijuana as a primary drug was stable from 2002.

Those who reported marijuana as the first drug of use in 2003 were mostly male (92.2 percent), and 30.2 percent were age 15–19 (exhibit 2). Less than one-half (46.1 percent) had a middle school education, 60.7 percent were single, and 50.0 percent came from a middle-low socioeconomic level. The age of onset for 47.2 percent of marijuana users occurred between 10 and 14 years of age; it was 15–19 for 44.6 percent of these admissions. Daily use was reported by 65.1 percent.

Data on the natural history of marijuana use among GTC patients in 2003 showed that 10.3 percent were monodrug users at treatment entry, and 89.7 percent began to use a second drug, usually alcohol (29.2 percent) and tobacco (20.6 percent) (exhibit 3). Of multiple drug users, 83.3 percent advanced to a third drug, usually alcohol (23.6 percent), cocaine (19.0 percent), tobacco (18.1 percent), or inhalants (12.6 percent).

NGC Data

At NGCs in 2003, marijuana was the second most common drug of first choice, accounting for 26.6 percent of treatment admissions, while it was the fifth most common primary drug of abuse (9.7 percent) (exhibit 4). The proportion of NGC clients reporting marijuana as a primary drug of abuse declined steadily from 1999 to 2003.

Males accounted for the overwhelming majority (95.9 percent) of patients reporting marijuana as a first drug of use at NGCs in 2003; 23.9 percent were age 35 and older (exhibit 5). A high school education was reported by 40.7 percent, and 56.4 percent of these admissions were single. The age of onset for marijuana use among these patients was between 10 and 14 (48.7 percent), and 80.9 percent reported daily use.

The natural history of marijuana consumption reported by NGCs during 2003 shows that 11.9 percent of marijuana admissions were monodrug users upon admission to treatment, while the remaining 88.1 percent had progressed to a second drug, which in order of importance were: cocaine (25.3 percent) and alcohol (16.5 percent) (exhibit 3). Of this group, 75.3 percent were already using a third drug, mainly cocaine (22.5 percent), heroin (21.4 percent), and crystal methamphetamine (12.7 percent).

Juvenile Arrestee Data

Information from the Juvenile Detention Centers showed that 34.5 percent of the 9,561 juveniles arrested during 2003 used marijuana (exhibit 6). Most were male (94.8 percent), 56.5 percent had an elementary school education, and 40.2 percent were subemployed. Tatoos were reported by 39.6 percent, and 33.3 percent of the arrestees were gang members. One-third of the offenses were committed under intoxication, and more than one-half (51.2 percent) of the offenses were robberies.

ME Data

ME data indicated that 3.3 percent of reported drug-related deaths in 2003 were associated with marijuana (exhibit 7). Males accounted for the majority of these decedents (94.5 percent); 25.5 percent were age 30–34. The main cause of death in these cases was asphyxia (27.3 percent), followed by traffic accident (14.1 percent). One-third of the marijuana-related deaths occurred at home.

Inhalants

GTC Data

Inhalants were the third most common drug of onset and the fourth most common current primary drug of abuse at GTCs in 2003 (exhibit 1). The proportion of admissions reporting inhalants as a current drug of abuse at GTCs has been declining steadily since 1999.

Among those reporting inhalants as a first drug of choice at GTCs in 2003, 86.3 percent were male, 37.3 percent were age 15–19, and 54.3 percent had a middle school education (exhibit 2). Most (73.4 percent) were single, and 54.2 percent were from a middle-low socioeconomic level. Nearly two-thirds (63.9 percent) began to use inhalants between ages 10 and 14; 42.9 percent used inhalants daily and 38.5 percent used them once a week.

GTC data on the natural history of inhalant use show that 20.5 percent of inhalant admissions were monodrug users upon entering treatment and that 79.5 percent were already using a second drug, mainly marijuana (28.9 percent), alcohol (24.8 percent), and tobacco (21.8 percent) (exhibit 8). Of the multiple drug users, 83.2 percent used a third drug, mainly alcohol (26.0 percent), marijuana (21.5 percent), tobacco (21.1 percent), or cocaine (13.5 percent).

NGC Data

Similar to clients at GTCs, clients at NGCs in 2003 reported inhalants as the third most common drug of onset (accounting for 14.4 percent) and as the fourth most common primary drug (11.2 percent) (exhibit 4).

Of the 5,599 patients who reported inhalants as a first drug of use at NGCs, most were male (93.5 percent), 31.3 percent were age 15–19, 61.6 percent had a middle school education, and 70.9 percent were single (exhibit 5). More than one-half (54.0 percent) began to use inhalants at age 10–14, and 81.4 percent reported daily use.

Regarding the natural history of inhalant users at NGCs in 2003, 50.1 percent of the patients had progressed to a second drug, which in order of importance were marijuana (53.8 percent), alcohol (14.8 percent), and cocaine (7.4 percent) (exhibit 8). Of these multidrug users, 73.2 percent had started to use a third drug, usually cocaine (23.8 percent), marijuana (13.3 percent), tranquilizers and alcohol (12.9 percent each), or heroin (10.8 percent).

Juvenile Arrestee Data

According to Juvenile Detention Centers, 14.6 percent of juvenile arrestees used inhalants (exhibit 6). Most them were male (93.1 percent) and had an elementary school education (68.2 percent). Between 42 and 44 percent were subemployed, had tattoos, or belonged to a gang. Robbery was the most common arrest for these arrestees, and 38.3 percent of the crimes were committed while the arrestee was intoxicated.

Alcohol

GTC Data

Alcohol was the most commonly reported drug of first choice among patients at GTCs in 2003 (32.9 percent), and it ranked second as the primary drug of abuse (18.1 percent) (exhibit 1). The proportion of patients reporting alcohol as the primary drug has increased steadily since 2000.

Of the 6,999 patients at GTCs who reported alcohol as a drug of onset, 84.4 percent were male, 25.4 percent were age 15–19, and 20.2 percent were age 20–24 (exhibit 2). Most had a middle school education (42.6 percent), 55.3 percent were single, and 54.2 percent were from a middle-low socioeconomic level. Almost one-half (48.2 percent) began to use alcohol between ages 15 and 19; 51.5 percent reported weekly use of the drug and 27.1 percent reported using alcohol 1–3 times per month.

The natural history of alcohol use at GTCs shows that when alcohol was the drug of first choice, 89.9 percent of clients had progressed to a second drug upon entry to treatment, usually tobacco (54.8 percent), marijuana (18.3 percent), and cocaine (15.1 percent) (exhibit 9). Of the multiple drug user group, 74.0 percent reported using a third drug, usually marijuana (34.2 percent), cocaine (27.8 percent), and inhalants (10.1 percent).

NGC Data

At NGCs in 2003, alcohol ranked first as the drug of first choice (29.1 percent) and third as a current drug (18.2 percent) (exhibit 4).

Most of the 11,349 patients who reported alcohol as the first drug of use were male (92.1 percent), 41.1 percent were age 35 or older, and 33.3 percent had only a middle school education (exhibit 5). Forty-three percent were single, and 45.6 percent started using alcohol between ages 15 and 19. Daily alcohol use was reported by 47.4 percent of these admissions, while 39.4 percent reported using alcohol once a week.

Information on the natural history of alcohol abuse provided by NGCs during 2003 shows that 26.4 percent were monodrug users upon entry to treatment, while the remaining 73.6 percent progressed to a second drug, typically marijuana (36.4 percent), cocaine (22.2 percent), and tobacco (16.8 percent) (exhibit 9). Most (65.2 percent) progressed to a third drug, usually cocaine (33.5 percent), marijuana (18.3 percent), and crystal methamphetamine (11.8 percent).

Juvenile Arrestee Data

Among juvenile arrestees, 13.5 percent reported alcohol abuse (exhibit 6). These juveniles were mostly male (91.7 percent); 48.6 percent had an elementary school education, 33.7 percent were subemployed, 30.1 percent had tattoos, and 26.1 percent were gang members. More than one-third of the juveniles (36.5 percent) committed the offense while intoxicated, and robbery (45.0 percent) was the most common offense.

ME Data

According to the ME, the abuse of alcohol was associated with 85.0 percent of the drug-related deaths reported in 2003 (exhibit 7). Most of these decedents were males (95.1 percent), and 41.0 percent were age 40 or older. The main cause of death was asphyxia (20.1 percent), followed by traffic accidents (14.1 percent). The most common places where deaths occurred were on street (37.2 percent) or at home (33.6 percent).

Cocaine

GTC Data

Among patients at GTCs in 2003, cocaine ranked fourth as the first drug of choice (accounting for just 5.3 percent of admissions) and first as the primary drug of abuse (29.8 percent) (exhibit 1). The proportion of admissions reporting cocaine as a primary drug has been decreasing at GTCs since 1997.

Those who reported cocaine as the drug of onset in 2003 were mostly male (85.2 percent); 30.9 percent were age 15–19, 48.5 percent had a middle school education, 56.6 percent were single, and 22.8 percent were married (exhibit 2). More than one-half (52.0 percent) were members of a middle-low socioeconomic level, 45.9 percent initiated cocaine use between ages 15 and 19, and 42.5 percent used cocaine once a week.

The natural history of cocaine use at GTCs shows that when cocaine was the drug of first choice, 32.6 percent of the admissions were monodrug users upon entering treatment, while the rest were already using a second drug, usually alcohol (33.5 percent), marijuana (24.2 percent), or tobacco (17.7 percent) (exhibit 10). Of the multiple drug users, 68.2 percent had started using a third drug, most commonly tobacco (29.9 percent), followed by alcohol (25.7 percent) and marijuana (16.4 percent).

NGC Data

At NGCs in 2003, cocaine ranked fourth as the drug of onset (5.0 percent of the cases) and second as the current drug of abuse (19.1 percent) (exhibit 4).

As with all other drugs, the overwhelming majority of cocaine users who attended NGCs were male (88.7 percent) (exhibit 5). Nearly one-fourth (23.5 percent) were age 20–24; 37.5 percent had a high school education, and 29.3 percent had middle school education. One-half of these admissions were single, and 41.9 percent started using cocaine between ages 15 and 19. Sixty percent reported daily use, and 30.4 percent reported used cocaine weekly.

The natural history of cocaine abuse reported by NGCs during 2003 shows that 35.3 percent of those who reported cocaine as a drug of onset were still monodrug users upon treatment entry (exhibit 10). The rest had moved to a second drug, usually marijuana (24.3 percent), alcohol (18.0 percent), crystal methamphetamine (17.2 percent), or heroin (12.8 percent). Of the multiple drug users, 45.3 percent had begun to use a third drug, most commonly crystal methamphetamine (18.2 percent) or marijuana (17.3 percent).

Juvenile Arrestee Data

Juvenile Detention Centers reported that 18.7 percent of juvenile arrestees used cocaine (exhibit 6). These arrestees were mostly male (93.3 percent), had an elementary school education (59.0 percent), and were subemployed (41.5 percent). More than one-third (36.5 percent) had tattoos, and only 32.5 percent were gang members. One-third of the juvenile infractors (32.0 percent) committed the offense under intoxication, and robbery was the most common offense (53.4 percent).

Heroin

GTC Data

Heroin ranked fifth as both the first drug of use and the current drug of use at GTCs in 2003 (exhibit 1). Reported primary use of heroin has been steady since 1991.

Of the 33 admissions reporting heroin as a drug of onset in 2003, 84.8 percent were male, 27.3 percent were age 35 and older, and 42.6 percent had a middle school education (exhibit 2). Sixty-one percent were single, 53.3 percent were from a low socioeconomic level, and 92.0 percent used the drug daily. Forty-two percent of these heroin users began using the drug between the ages of 15 and 19.

NGC Data

Heroin ranked fifth as the first drug of use at NGCs in 2003 (exhibit 4). In contrast to patients at GTCs, however, patients at NGCs ranked heroin first as the current drug of use.

Of the 936 patients at NGCs in 2003 who reported heroin as the drug of onset, 92.5 percent were male, 42.9 percent were age 35 and older, and 39.2 percent had only a middle school education. Nearly one-half were single, and the first use of heroin occurred between ages 15 and 19 for 36 percent of these patients. Daily use was reported by 92.7 percent of them.

Juvenile Arrestee Data

Information from the Juvenile Detention Centers showed that 0.8 percent of the juveniles arrested during 2003 used heroin (exhibit 6). Most of these arrestees were male (94.9 percent), 55.1 percent had an elementary school education, and 45.0 percent were unemployed. More than one-half (58.1 percent) had tattoos, and 37.2 percent were gang members. One-half of the offenses were committed under intoxication, and robbery was the most common offense (57.7 percent).

CONCLUSIONS

In 2003, the type of drug mentions varied according to the different information sources. Prior to 1999, the most common drug of onset at GTCs was marijuana, but alcohol moved into the number one spot after that. Similarly, at NGCs, alcohol replaced marijuana as the most commonly reported drug of onset in 2003. Since 1995, cocaine has been the most commonly reported current drug of use at GTCs, although the proportion of such cases declined slightly in 2003. Heroin remained the most frequently reported current drug of use at NGCs in 2003, but the proportion of clients reporting this drug has declined from the peak in 1998. According to data from Juvenile Detention Centers, marijuana and alcohol use have increased among juvenile arrestees. A primary goal of SISVEA is to strengthen and expand the surveillance system to include the rest of Mexico.

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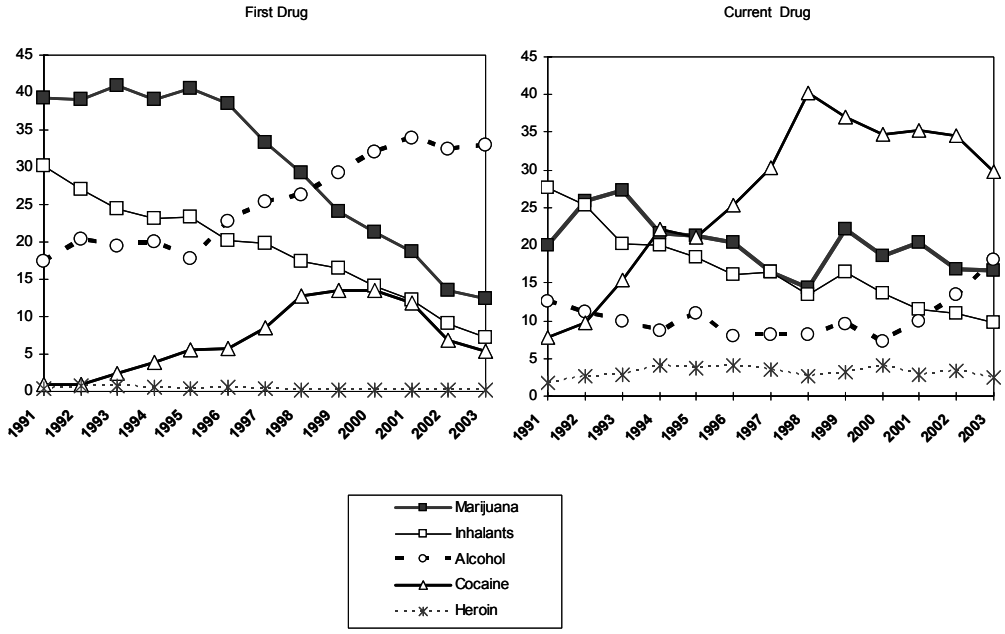
Exhibit 1. Comparison Between First Drug of Use and Current Drug of Use Among Patients at Government Treatment Centers, by Percentage: 2003



SOURCE: SISVEA—Government treatment centers

Exhibit 2. Demographic Characteristics of Government Treatment Center Patients by First Drug of Use and Percent: 2003

Demographic Characteristic	Global N=21,387	Marijuana n=2,656	Inhalants n=1,555	Alcohol n=6,999	Cocaine[1] n=1,142	Heroin n=33	Tobacco n=8,403
Gender							
Male	84.1	92.2	86.3	84.4	85.2	84.8	80.8
Female	15.9	7.8	13.7	15.6	14.8	15.2	19.2
Age Group							
5–14 years	7.0	4.9	19.1	6.0	4.6	6.1	6.7
15–19	28.6	30.2	37.3	25.4	30.9	15.2	29.1
20–24	20.4	22.1	17.2	20.2	25.8	21.2	19.8
25–29	15.3	14.7	11.5	17.4	18.9	15.2	13.9
30–34	11.4	13.8	7.0	13.0	11.9	15.2	10.1
35 and older	17.2	14.2	7.7	18.1	7.9	27.3	20.4
Schooling							
Elementary school	19.2	23.3	32.1	16.2	16.1	30.3	18.5
Middle school	44.2	46.1	54.3	42.6	48.5	54.5	42.6
High school	22.4	21.6	8.4	25.1	23.8	12.1	22.9
College studies	5.5	3.3	3.0	6.3	4.5	0.0	6.2
No formal education	7.7	4.9	1.2	8.9	6.4	3.0	9.0
Other	0.5	0.5	0.6	0.5	0.5	0.0	0.3
Marital Status							
Single	58.1	60.7	73.4	55.3	56.6	60.6	56.9
Married	23.3	20.5	10.3	26.0	22.8	12.1	24.4
Divorced	2	1.3	0.6	2.2	1.7	0.0	2.4
Widowed	0.5	0.2	0.3	0.3	0.4	0.0	0.9
Living together	10.7	12.2	10.8	10.4	13.1	15.2	10.2
Other	5.4	5.0	4.7	5.8	5.5	12.1	5.3
Socioeconomic level							
High, middle-high	16.0	15.9	8.3	16.8	15.6	3.3	16.8
Middle	6.7	6.9	3.9	6.8	6.1	0.0	7.1
Middle-low	54.0	50.0	54.2	54.2	52.0	43.3	55.2
Low	23.4	27.3	33.6	22.2	26.4	53.3	20.9
Age of onset							
9 and younger	4.7	2.8	6.8	4.4	1.1	0.0	5.5
10–14	47.9	47.2	63.9	39.5	24.7	32.3	55.0
15–19	40.8	44.6	27.7	48.2	45.9	41.9	35.2
20–24	4.5	3.8	1.1	5.8	14.1	16.1	3.0
25–29	1.4	1.1	0.3	1.4	8.1	9.7	0.8
30–34	0.5	0.4	0.1	0.4	3.8	0.0	0.3
35 and older	0.3	0.1	0.1	0.3	2.2	0.0	0.2
Frequency							
Daily	54.1	65.1	42.9	17.5	39.9	92.0	80.2
Once a week	29.2	23.4	38.5	51.5	42.5	8.0	12.3
1–3 times per month	14.8	10.4	15.8	27.1	15.7	0.0	6.9
1–11 times per year	1.9	1.1	2.8	4.0	2.0	0.0	0.6

[1]Cocaine, basuco, crack
SOURCE: SISVEA—Government treatment centers

Exhibit 3. Natural History of Marijuana Use: 2003

Government Centers

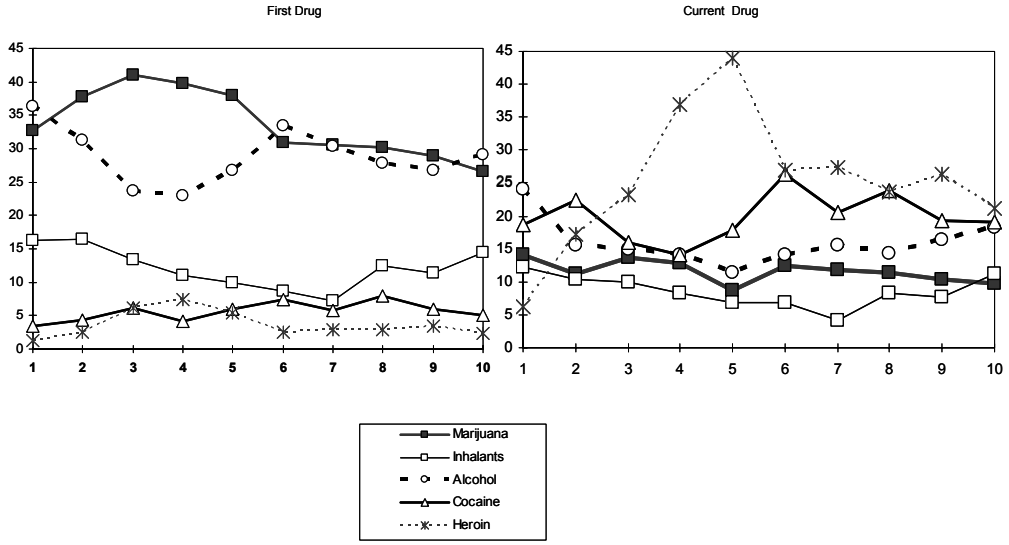
Marijuana		Use a 2nd drug			Use a 3rd drug	
	89.7%			83.3%		
		Alcohol	29.2%		Alcohol	23.6%
		Tobacco	20.6%		Cocaine	19.0%
		Cocaine	19.1%		Tobacco	18.1%
10.3%		Inhalants	13.1%		Inhalants	12.6%
Monodrug users		Crack	3.4%	16.7%	Crystal	5.0%
		Others	14.6%		Others	21.7%

Nongovernment Centers

Marijuana		Use a 2nd drug			Use a 3rd drug	
	88.1%			75.3%		
		Cocaine	25.3%		Cocaine	22.5%
		Alcohol	16.5%		Heroine	21.4%
		Inhalants	15.6%		Crystal	12.7%
11.9%		Crystal	9.5%		Alcohol	9.4%
Monodrug users		Tranquilizers	9.4%	24.7%	Tranquilizers	8.7%
		Others	23.7%		Others	25.3%

SOURCE: SISVEA—Government and nongovernment treatment centers

Exhibit 4. Comparison Between First Drug of Use and Current Drug of Use Among Patients at Nongovernment Treatment Centers, by Percentage: 2003



SOURCE: SISVEA—Nongovernment treatment centers

Exhibit 5. Demographic Characteristics of Nongovernment Treatment Center Patients, by First Drug of Use and Percent: 2003

Characteristic	Global *N*=39,011	Marijuana *n*=10,374	Inhalants *n*=5,599	Alcohol *n*=11,349	Cocaine[1] *n*=2,207	Heroin *n*=936	Tobacco *n*=6,733
Gender							
Male	93.2	95.9	93.5	92.1	88.7	92.5	92.3
Female	6.8	4.1	6.5	7.9	11.3	7.5	7.7
Age							
5–14 years	2.2	1.5	7.7	0.8	1.6	0.2	1.6
15–19	16.0	16.3	31.3	9.6	18.6	3.7	14.2
20–24	20.1	21.9	25.6	15.2	23.5	15.7	20.7
25–29	18.5	20.1	15.6	17.0	21.6	20.0	19.8
30–34	15.6	16.3	9.7	16.2	17.6	17.4	17.4
35 and older	27.5	23.9	9.9	41.1	17.1	42.9	26.2
Schooling							
Elementary school	4.4	3.1	7.2	5.4	2.6	5.1	2.7
Middle school	39.3	38.1	61.6	33.3	29.3	39.2	35.8
High school	36.2	40.7	26.4	32.8	37.5	36.7	42.5
College studies	15.8	15.4	4.3	20.0	24.4	17.5	15.7
No formal education	4.1	2.4	0.5	7.9	5.7	1.3	3.1
Other	0.4	0.3	0.0	0.7	0.5	0.2	0.3
Marital Status							
Single	53.3	56.4	70.9	43.2	50.0	49.5	52.3
Married	22.3	18.3	13.8	29.9	27.9	20.8	20.9
Divorced	4.4	4.1	1.7	5.7	4.1	7.2	4.5
Widowed	1.0	0.7	0.6	1.5	0.5	1.4	0.9
Living together	12.1	13.4	8.0	11.4	11.6	12.9	15.0
Other	7	7.2	4.9	8.4	6.0	8.2	6.2
Age of Onset							
9 and younger	5.7	5.2	7.3	4.3	1.2	1.3	9.7
10–14	43.8	48.7	54.0	36.8	19.5	16.6	51.0
15–19	39.6	38.6	35.2	45.6	41.9	35.8	34.7
20–24	6.7	5.0	2.6	8.6	18.6	23.0	3.3
25–29	2.5	1.7	0.6	2.7	11.4	10.9	1.1
30–34	0.9	0.5	0.2	0.9	4.2	6.4	0.2
35 and older	0.8	0.3	0.0	1.1	3.2	6.1	0.1
Frequency							
Daily	71.7	80.9	81.4	47.4	60.4	92.7	90.6
Once a week	21	13	14.2	39.4	30.4	6.4	7.0
1–3 times per month	5.9	4.8	3.0	10.9	7.1	0.8	1.8
1–11 times per year	1.5	1.2	1.5	2.3	2.1	0.1	0.6

[1]Cocaine, basuco, and crack.
SOURCE: Nongovernment treatment centers

Exhibit 6. Social Characteristics and Type of Offense Committed by Juvenile Drug-Using Arrestees, by Percentage: 2003

Global N = 9561	Marijuana n = 3 297	Inhalants n= 1 399	Alcohol n = 1 294	Cocaine n = 1 785	Heroin n= 78
Male 90.2%	Male 94.8%	Male 93.1%	Male 91.7%	Male 93.3%	Male 94.9%
Elementary school 49.4%	Elementary school 56.5%	Elementary school 68.2%	Elementary school 48.6%	Elementary school 59.0%	Elementary school 55.1%
Subemployed 28.9%	Subemployed 40.2%	Subemployed 43.3%	Subemployed 33.7%	Subemployed 41.5%	Unemployed 45.0%
Tattoo 23.6%	Tattoo 39.6%	Tattoo 41.8%	Tattoo 30.1%	Tattoo 36.5%	Tattoo 58.1%
Belong to a gang 20.9%	Belong to a gang 33.3%	Belong to a gang 44.1%	Belong to a gang 26.1%	Belong to a gang 32.5%	Belong to a gang 37.2%
Offense under intoxication 18.7%	Offense under intoxication 33.2%	Offense under intoxication 38.3%	Offense under intoxication 36.5%	Offense under intoxication 32.0%	Offense under intoxication 50.0%
Frequent Offenses					
Robbery 47.1%	Robbery 51.2%	Robbery 52.5%	Robbery 45.0%	Robbery 53.4%	Robbery 57.7%
Against health 12.7%	Against health 23.5%	Against health 18.2%	Injuries 12.1%	Against health 25.3%	Against health 20.5%
Injuries 8.8%	Drugs/ Consumption 7.0%	Drugs/ Consumption 9.8%	Against health 8.6%	Drugs/ Consumption 4.8%	Injuries 6.4%
Damages 6.5%	Arm bearing 5.0%	Damages 5.6%	Damages 6.4%	Arm bearing 4.5%	Damages 5.1%
Others 24.9%	Others 13.3%	Others 13.9%	Others 27.9%	Others 12.0%	Others 10.3%

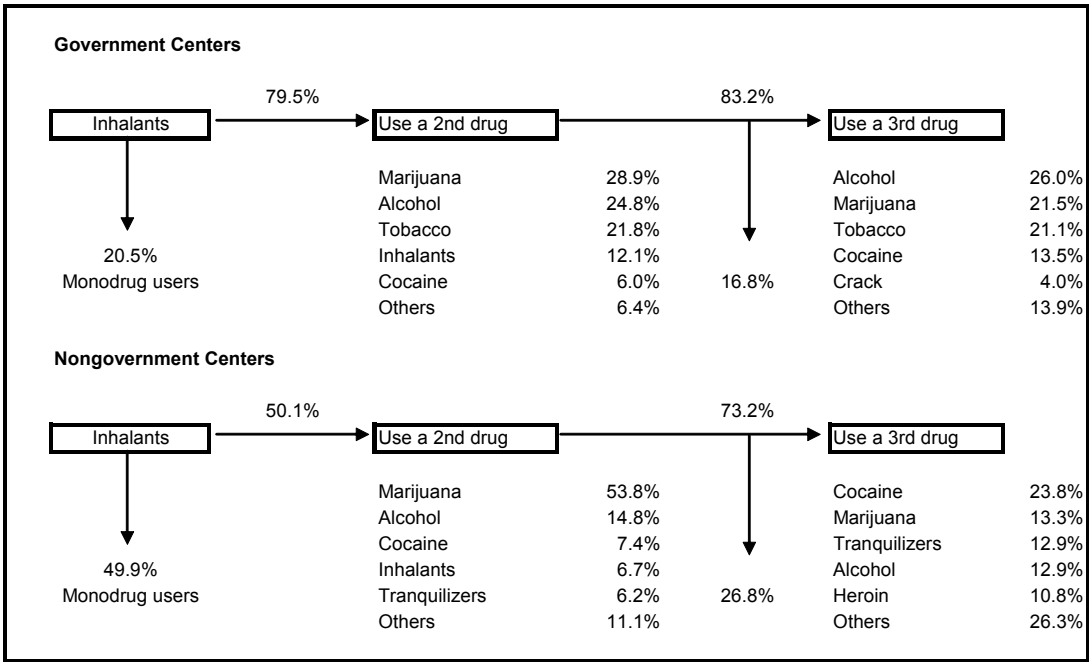
SOURCE: SISVEA—Juvenile Detention Centers

Exhibit 7. Type of Death Under Intoxication of Selected Drugs[1] in Mexico by Percent: 2003

Characteristic	Global *N*=1 645	Alcohol *n*=1 399	Marijuana *n*=55	Opioids[2] *n*=96
Gender				
Male	93.4	95.1	94.5	88.5
Female	6.6	4.9	5.5	11.5
Age				
10–14 Years	0.7	0.6	3.6	2.1
15–19	6.8	6.8	10.9	1.0
20–24	13.6	13.8	7.3	7.3
25–29	13.7	14.0	23.6	22.9
30–34	13.3	12.9	25.5	17.7
35–39	11.4	10.9	5.5	20.8
40 and older	40.5	41.0	23.6	28.1
Cause Of Death				
Run Over	12.4	13.5	5.5	1.0
Traffic Accident	12.5	14.1	3.6	0.0
Fall	4.4	4.3	1.8	2.1
Electrocuted	0.2	0.3	0.0	0.0
Burned	0.9	0.7	0.0	0.0
Beaten	3.6	4.0	1.8	2.1
Asphyxia	18.8	20.1	27.3	2.1
Crushed	0.1	0.1	0.0	0.0
Fire Arm	7.8	8.1	16.4	0.0
Steel knife	3.8	4.1	9.1	0.0
Violation	0.2	0.2	0.0	0.0
Intoxicated	13.0	9.3	12.7	88.5
Poisoning	0.5	0.4	0.0	0.0
Other	21.7	20.8	21.8	4.2
Place Of Death				
Traffic	17.5	19.4	3.7	0.0
Home	33.1	33.6	27.8	28.1
Street	36.9	37.2	59.3	61.5
Public Baths	0.1	0.1	0.0	0.0
Recreational Areas	2.2	2.4	1.9	0.0
At Work	0.7	0.7	0.0	0.0
Service Areas	5.1	2.5	5.6	0.0
Other	4.5	4.2	1.9	10.4

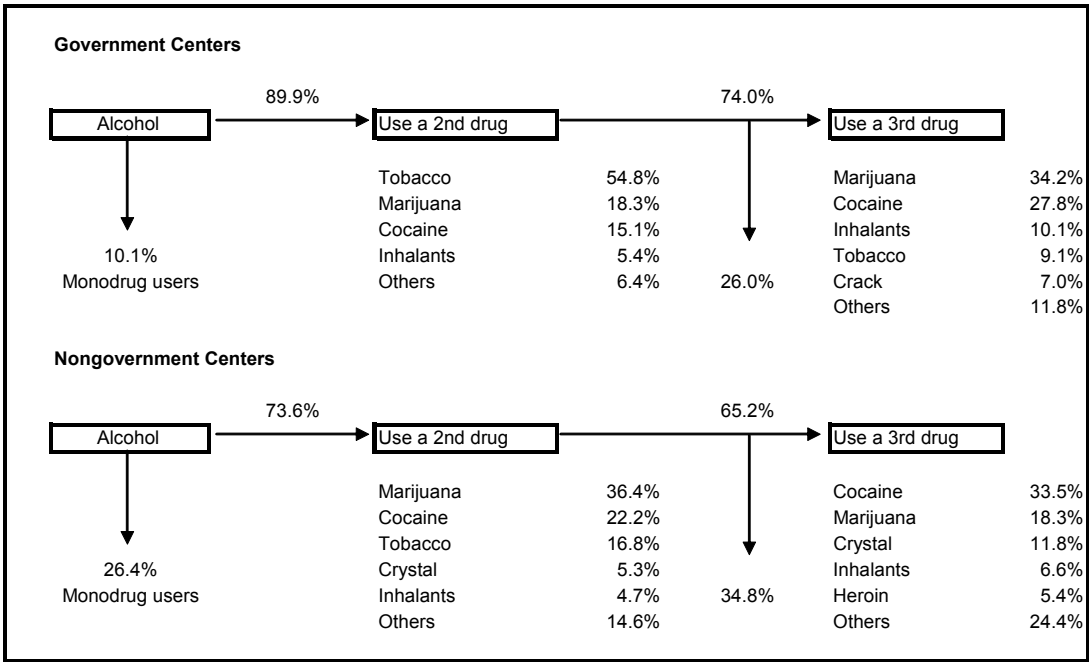
[1]Deaths from all causes totaled 9,086.
[2]Opium, morphine, and heroin.
SOURCE: SISVEA

Exhibit 8. Natural History of Inhalants Use in Mexico: 2003



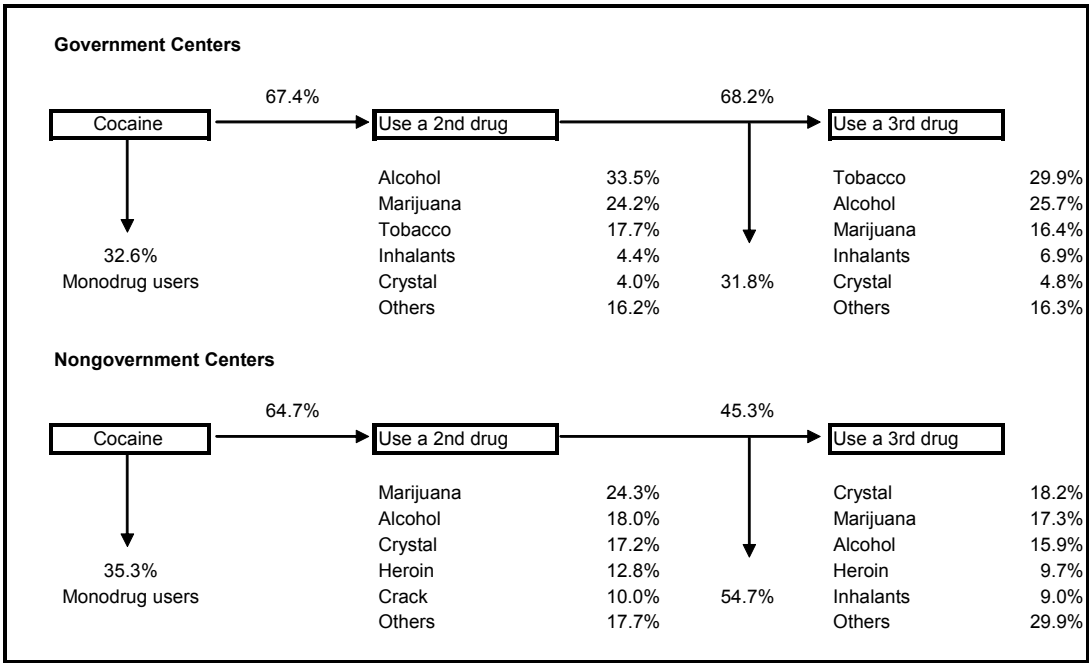
SOURCE: SISVEA—Government and nongovernment treatment centers

Exhibit 9. Natural History of Alcohol Use in Mexico: 2003



SOURCE: SISVEA—Government and nongovernment treatment centers

Exhibit 10. Natural History of Cocaine in Mexico: 2003



SOURCE: SISVEA—Government and nongovernment treatment centers

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